

ABSTRACT

Title of Dissertation: LITERACY AND EDUCATIONAL QUALITY
IMPROVEMENT IN ETHIOPIA: A MIXED METHODS
STUDY

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This study examines the development of early grade reading skills as a means for quality improvement in global education. Specifically, this study explores the contextual factors that affect the achievement of early reading skills in Ethiopia and investigates the relationship between literacy and educational quality. The sequential explanatory mixed-methods design is employed to answer four research questions:

1. According to the Ethiopia Early Grade Reading Assessment (EGRA) dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related?
2. According to qualitative data, how do parents' and teachers' perspectives explain and substantiate the contextual factors identified in the EGRA dataset and do other factors emerge?
3. Given the answers to the first two research questions, what are the factors associated with achievement that are most favorable and most challenging for literacy development?

4. Given the answer to the third research question, how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?

The first, quantitative phase of this study shows that a vast majority of students do not perform at expected levels on the Ethiopia EGRA. The results from three multiple regression analysis models for oral reading fluency and reading comprehension outcomes suggest that both in-school and out-of-school variables have a significant influence on student achievement. The second, qualitative phase of this study reveals several important findings above and beyond those identified in Phase I. First, the findings from both Phase I and Phase II demonstrate the importance of out-of-school variables, but the importance of these to both teachers and parents was underestimated in Phase I. School directors, parents, and teachers highlight the home environment as the most important factor in student achievement.

This study demonstrates the utility of a mixed-methods approach to investigate more holistically the practice of literacy in Ethiopia and its relationship to the pursuit of educational quality more broadly. This study also provides a responsive, critical, and theoretical grounding for understanding conflicting perspectives, policies, and approaches to improving the quality of education through literacy development.

LITERACY AND EDUCATIONAL QUALITY IMPROVEMENT IN ETHIOPIA:
A MIXED METHODS STUDY

By

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Chapter 1: Introduction

Statement of the Problem

The aim of extending a basic level of quality education to all children, young people, and adults globally has captured the attention of the international community and was a major goal agreed upon at the 1990 World Conference on Education for All (EFA), in Jomtien, Thailand. Economists, politicians, and educationalists alike have meanwhile argued that the expansion of educational opportunity is foundational to a nation's accelerated socioeconomic growth and development. The result has been investment in initiatives to improve accessibility to basic education as measured by various indicators of success, namely increased enrollment rates. Yet despite significant gains in access achieved in the past decade, attention has shifted to the quality of this educational expansion. The obvious question policy makers are asking is: *what good is access to education if students are in school and they are not learning?*

But the concept of educational quality is itself multifaceted, complex, and difficult to define and measure. Most studies that attempt to operationalize quality do so by reducing it to the measurement of student achievement on assessments of basic cognitive skills. Most of these are essentially school effectiveness studies that rely on a linear input-outcome model of education and even within this framework, those factors which are most convenient and easily measured are chosen piecemeal. Some, more thoughtful, studies include caveats that all the dimensions of quality cannot be measured.

The latest trend to improve educational quality is the development of basic cognitive skills. UNESCO (2004) and the United States Agency for International Development (USAID) (2011) have concluded that benefits accrue to the individual,

community, society, and formal education system itself when traditional schooling is supported by early learning and literacy skills development programs. The refocus on improving basic skills is in part a result of the proliferation of national and international assessments. Poor results on these assessments have signaled to national governments and the international donor community that educational quality is poor and to improve it, basic skills must be mastered.

Luis Crouch, head of the Global Good Practice Team of the Global Partnership (formerly the Fast Track Initiative), in a 2009 presentation to USAID, argued that quality of education is directly related to the early acquisition and utilization of literacy skills. This argument is also linked to research on economic rates of return, such as Hanushek & Wößmann's (2008, 2009) whose work regresses an independent variable (typically a basic measure of student achievement, called "quality") on a dependent variable (some measure of economic growth). The problem with these arguments is that they reduce the quality of education - the very goal that the international community has committed to achieve - down to student achievement on assessments of basic skills and rely on linear statistical techniques that are in themselves limited in the story they can tell.

As greater focus and resources continue to shift to these priorities, we are left wondering how early literacy, conceptualized as a basic cognitive skill, fits into the larger quality puzzle beyond its purported economic implications. Just as critics have argued for a holistic and complex view of quality, so too has a body of literacy research and critical theory concluded that literacy is much more than just the acquisition of basic skills. Literacy is a complex social process that requires deeper analysis to unearth how learners utilize skills to meaningfully participate in their environments. We must ask ourselves the

question: does a fast oral reading fluency rate result in functional, culturally meaningful, and socially relevant literacy? Or is it just a fast oral reading fluency rate? In this study, I argue that the reductionist tendency to define literacy as a set of easily measurable subtasks (e.g. words per minute, decoding, etc.) and to reduce overall educational quality to easily measurable outcomes like basic literacy skills represent a continued trend in policy efforts to provide a “silver bullet” to improving the poor state of education.

Ethiopia is a prime example of this tension. Since the overthrow of the autocratic Derg regime in 1991 and Ethiopia’s subsequent commitment to EFA goals, the primary gross enrollment rate increased from less than 30% to over 90%. But according to student achievement on standardized tests, the quality of the educational system is deteriorating with its increased accessibility. Specifically, Ethiopia’s latest National Learning Assessment (NLA) in 2007 shows a significant decline in achievement when compared with scores from the 2000 baseline.

In 2010, with the help of the international NGOs Research Triangle International (RTI) and FHI 360, the Ethiopian Ministry of Education (MOE) conducted an Early Grade Reading Assessment (EGRA). The results were dismal, indicating that at least 80% of children are not reading at the MOE’s expected oral reading fluency rates. Piper (2010) notes that while children are attending school in Ethiopia for two or three years, a significant percentage remains illiterate. As a result, the Ethiopian government and bilateral and multilateral foreign aid donors are investing heavily in multiple large scale efforts to improve the quality of basic education through the improvement of early grade literacy skills. A deeper exploration of these initiatives is a timely effort.

Purpose of the Study

This study is primarily concerned with exploring the adoption of early grade reading initiatives to improve educational quality in Ethiopia. The purpose of this study is twofold: first, to critically examine the practice of literacy in Ethiopia and second, to explore the use of literacy development as an educational quality improvement initiative. As noted, the most recent extant research on literacy in Ethiopia is the 2010 EGRA. The EGRA Analytic Report (Piper, 2010) highlights relationships between oral reading fluency scores on the EGRA and student level predictor variables, which include variables measuring the effects of out-of-school factors including family support (e.g. mother or father's literacy, has books, family help with homework, wealth) and student characteristics (e.g. age, repetition, absenteeism, early childhood education), and in-school factors (e.g. urban or rural, school human resources, textbooks, language of instruction, grade effect).

Using multiple regression analysis, dozens of models were fit at the national and regional levels and the highest magnitude relationships were reported in the Analytic Report. Due in part to the great sociocultural and ethno linguistic differences between regions, there was significant inter-regional variation on which predictor variables had significant relationships with oral reading fluency. While individual predictor variables were modeled to explore their relationships with oral reading fluency, the data were not further examined to discover how the model might look if multiple predictor variables were added. The relationships between predictor variables are unknown. This is a serious limitation because in practice individual predictor variables do not operate in isolation; they operate between and within in-school and out-of-school environments. Thus, further

exploration of the EGRA dataset is needed to better understand how multiple predictor variables relate and affect literacy development.

To avoid the reductionist tendency to rely on limited and most-easily measurable quantitative variables and linear analysis alone to explore a phenomenon, I am guided by frameworks drawn from critical theory, including the New Literacy Studies and cultural historical activity theory, to supplement the quantitative EGRA data with qualitative data collected from purposively selected schools, as well as national-level Ministry of Education officials. These frameworks claim that literacy activities happen across the multiple and dynamic landscapes of school, home, community, work, and play. Barton and Hamilton (1998) suggest:

Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people's heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people (p. 3).

This assertion establishes the need to further investigate how the EGRA factors might point to literacy *activities* across these in-school and out-of-school environments. Based on the results of my analysis of the EGRA dataset, I selected two primary schools in the Addis Ababa region and collected qualitative data to explore further how those variables are experienced as literacy activities. While regression analyses can point to the existence of relationships between variables, it cannot provide a detailed understanding of the *experience* of them. Thus, through qualitative data, the further exploration of the relationships between variables provides a more holistic understanding of what it means

to be literate in Ethiopia. Qualitative data also introduces factors that may have been excluded in the quantitative data, thereby adding to the existing knowledge of the factors affecting literacy development. I also explore how these factors relate to educational quality improvement policy and interventions by the Ethiopian government and the donor communities.

As noted, my research is rooted in the critical theoretical frameworks of New Literacy Studies and cultural historical activity theory which emphasize the importance of complex and multiple environmental interactions. These frameworks also stress that findings based on research using linear models alone are limited. My research is guided by the concept of *bricolage*, which argues for the use of multiple and mixed research methods to more fully understand a phenomenon. My mixed-methods approach improves understanding of the complex associations and both linear and nonlinear relationships between these factors that make up the practice of literacy and educational quality in Ethiopia.

Finally, I explore these questions by framing them within Ethiopia's larger educational quality development context. Though this study specifically utilizes the Ethiopia mother-tongue EGRA dataset and supplemental qualitative data to explore the practice of literacy, I frame my discussion within the larger quality development context. This is for two reasons: first, as I noted, literacy is used widely as a proxy for early grade educational quality, and second, the concept of quality is used to justify the investment of both national and international resources. The way that quality of education is conceptualized is critical to understanding the implementation, resource justifications, and policy decisions on a range of educational development programs in Ethiopia.

Research Questions

My first research question is: According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related? The EGRA dataset contains a rich selection of contextual variables relevant to modeling the relationship between environmental context, family, school environment, and student to literacy practice. To further unpack these variables, I explored my next research question from a different, qualitative perspective: According to qualitative data, how do parents' and teachers' perspectives explain and substantiate the contextual factors identified in the EGRA dataset and do other factors emerge? I asked this research question to better understand the relationships between environmental context, family, school environment, and student and to further determine what variables might be missing from the EGRA dataset. In follow-up to the answers to my first two research questions, I asked a third question: Given the answers to the first two research questions, what are the factors associated with achievement that are most favorable and most challenging for literacy development? This question delves into parents', teachers', administrators', and policy makers' opinions on how the associated factors present opportunities and challenges for developing literacy in Ethiopia. My final research question took the answer to the third one step further by investigating how literacy development fits into the overall understanding of educational quality in Ethiopia: Given the answer to the third research question, how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?

Significance of the Study

Ultimately, I believe the findings from this study achieve two goals: (1) to uncover a more holistic picture of how early literacy is experienced in Ethiopia; and (2) to explore how different types of data and methods may uncover different, yet complementary findings that provide deeper insight than one type or method alone. In the broader context of improving quality of education through early literacy initiatives, these findings have important policy implications. Furthermore, in the “evidence-based” policy environment where we currently operate, the use of multiple methods to unpack the relationships between variables is critical to wed the strengths of multiple approaches. This study provides a responsive, critical theoretical grounding for understanding conflicting perspectives, policies, and approaches to improving the quality of education through literacy development.

Organization of the Study

This study is organized in six subsequent chapters. The first chapter reviews the concepts of quality and literacy and how current research frames these concepts. The first chapter also lays out the argument for early grade literacy policy initiatives as a means for educational quality improvement. The second chapter provides an overview of the theoretical approaches to literacy and lays out the critical theoretical frameworks for this study. The third chapter provides an overview of educational development in Ethiopia and summarizes the current quality improvement and early literacy initiatives. The fourth chapter discusses the methodology of the research that will be conducted in this study. The fifth and sixth chapters detail the findings from the quantitative and qualitative data collection and analysis, respectively. Finally, the seventh chapter summarizes the study,

explores the relationship between quantitative and qualitative findings, and discusses their implications for overall educational quality improvement in Ethiopia.

Chapter 2: What is Quality Education?

Introduction

Expanding access to and quality of basic education were major goals agreed upon at the 1990 World Conference on Education for All (EFA) in Jomtien, Thailand. The conference built on a growing realization by the international community that despite being on the international agenda since 1948 with the ratification of the Universal Declaration of Human Rights, free and compulsory primary education was still not available for all children around the world. The EFA goals focused on meeting basic needs of education by agreeing to: expand universal access to learning, focus on equity, emphasize learning outcomes, broaden the scope of basic education, enhance the learning environment, and strengthen international partnerships to achieve the above (UNESCO, 1990).

A decade later, when it became clear that the original EFA goals would not be met in time for the year 2000 deadline, the international community reconvened in Dakar to participate in the World Education Forum in 2000. They reconfirmed the importance of the original EFA goals through the establishment of six new EFA goals, which are being pursued today: (1) expanding comprehensive early childhood care and education especially for vulnerable and disadvantaged children; (2) ensuring that by 2015, all children, particularly girls and marginalized, have access to and complete free and compulsory primary education of good quality; (3) ensuring the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programs; (4) achieving a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for

all adults; (5) eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality; and (6) improving all aspects of the quality of education and ensuring excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills (UNESCO, 2000a).

Some aspects of the EFA goals were also reinforced in the UN Millennium Development Goals (MDG) for 2015 through specific reference to achieving universal primary education (UPE) (United Nations, 2000). A majority of the efforts toward achieving these broad international goals in developing countries have in practice focused on the second EFA goal and the second MDG: increasing access to primary education. To achieve universal access to primary education, and in some cases universal secondary education (USE), international donors and national governments instigated programs to abolish school fees and provide the necessary inputs into the education system, including resources like funding for more and better trained teachers, infrastructure, and learning materials. Efforts were also made to remove the barriers pupils faced in accessing education, like targeted resources for the most disadvantaged groups and mitigating health concerns (e.g. through school feeding programs, deworming, and HIV/AIDS programming). These efforts reflect a trend in the international and national responses to EFA that conflated the overall EFA goals with the goals of UPE and USE; on the contrary, these are not identical goals.

As such, in some countries, due to both the scarcity of resources as well as financing gaps from governments, international donors, and other multilateral bodies,

most investments in educational development have focused on improving access. Some would argue that this has been the *only* real investment in education, rather than an *initial* investment (UNESCO, 2004). It is clear through these broad commitments that the international community agrees that education is critical from both human rights and economic development perspectives. But there is little clarity about how educational systems could and should be meeting such objectives. The data regarding access are more simply quantifiable than the data on quality; access indicators include overall net enrolment, ratios, and retention rates (United Nations, 2000). But what about quality? How do we measure it and our progress toward achieving it? Moreover, before we can understand our progress towards it, we need to ask the obvious, yet complex question: *what is quality?*

What is quality?

As the lead coordinating organization of other agencies and organizations in reaching the EFA goals, UNESCO¹ provides a definition of a quality education as “one that satisfies basic learning needs and enriches the lives of learners and their overall experience of living” and notes that efforts to expand access to education must be coupled with efforts to improve quality if children are to be attracted to school, remain in school, and achieve meaningful outcomes (2000). With such a definition it is already clear that many different factors are associated with educational quality. Critics, like Alexander (2008), note that “the EFA discourse has moved from a commitment to quality

¹ While UNESCO is the lead agency for coordinating EFA efforts, shortages in financing led the World Bank to fill in gaps. As a result, World Bank policy and ideology has determined resource investment in education in the developing world (Klees, forthcoming).

to its measurement without adequate consideration of what quality entails” (p. vii). UNESCO also admits that measuring progress toward quality is a huge challenge.

How a quality education is defined varies across stakeholder groups. Wagner (2011) poses several questions that may be asked, and I add several more. First, at the international level: How can the international community better judge the current status of learning across countries? How can the international community know how to best invest resources to have the greatest impact on quality improvement? What kind of learning is common enough across countries to make a “fair” comparison? How confident can the international community be in the quality of information *about* the quality of education to make funding decisions?

Second, at the national (country) level: What are the core competencies that students are expected to have as a result of their education? How can governments improve the flow of talent through the levels of the education system so that students can achieve their core competencies, while also excelling? What policies would help the national system perform better? Third, at the learner (individual) level: What will the student get out of school? How will the student be able to apply a diploma, degree, or certificate to something meaningful or necessary in their lives? How will the student be able to apply what they learn in school to his/her everyday life? How will education contribute to creating well-rounded citizens? What good is this education, really?

The various questions that different stakeholders might ask about quality highlight the complexity of the issue. As noted, quality of education is universally accepted as an important concept in education, yet it is difficult to conceptualize and even more difficult to form a consensus on how it should be achieved and evaluated. The literature

attempting to define quality is lengthy, yet inconclusive in terms of developing a unified or even broadly accepted definition. Schubert and Prouty-Harris (2003) note that the various and numerous attempts to understand quality are drawn from independent yet complementary research on individual projects, reviews of national education sector strategies, case studies of activities, meta-analyses of clusters of studies, and reviews of reviews. This has resulted in a multitude of different lenses through which quality is viewed, producing a number of different definitions and conceptual understandings. Yet Schubert and Prouty-Harris summarize that the overall attempt is to “ascribe meaning to education policy and practice assumed to result in increased performance of teaching and/or learning or both” (p. 13).

Professor of Education at University of Pittsburgh, Donald Adams, produced a seminal paper in 1993 to construct a better understanding of quality and notes first that the literature is imprecise and inconsistent in its use of terminology to describe the educational system and its performance. Adams states that in practice, quality is generally defined in terms of outputs, outcomes, process, or inputs. Outputs typically refer to student achievement, completion, certification, skills, or attitudes or values. Outcomes, when distinguished from outputs, are the longer term consequences of education that result from long term changes in outputs, as well as employment and earnings. Inputs generally include characteristics like teachers, pupils, facilities, curriculum, or other resources to maintain or change the system. These inputs, outputs, and outcomes can vary significantly across communities, countries, or regions, which form the context of education.² Process is usually conceptualized as the interaction between the various

² Robinson (2008) adds the dimension of “context” as a separate and necessary component of the quality concept (p. 7).

stakeholders in the system including parents, teachers, students, administrators, materials, and technology. Adams attempts three objectives: (1) to draw distinctions between quality and other related concepts; (2) identify multiple meanings of educational quality; and (3) to operationalize the term quality for purposes of communication, planning, and evaluation. Each objective will be considered in detail below.

Often, the terms quality, efficiency, effectiveness, and equity are used interchangeably or have conflicting uses. Adams simply defines efficiency as “the relation of outputs to inputs” (p. 4). Economic models of efficiency typically define it as when the “value of an output is maximized for a given value of an output” (p. 4).³ The concept is that a system is more efficient when it maximizes the use of and avoids the waste of resources in order to attain outputs and outcomes. Of course, how one uses the terms “use” or “waste” is open to interpretation. Distinctions are typically drawn between internal efficiency, which considers the relationship between input costs and outputs such as improved knowledge or skills, and external efficiency, which refers to the relationship between input costs to outcomes such as the longer term effects of education on the society as a whole, like improved economic production. The term effectiveness is often used to describe either internal or external efficiency.

Equity in the education system usually refers to opportunities, distribution, and the consequences of the relationship between the two. If, for instance, the distribution, opportunities, or consequences are imbalanced and deemed “unfair” by a group of stakeholders, then the attempts for efficiency in education may need to be supplemented by other policies to achieve an agreeable level of equity. Controversy surrounding what

³ The relationship between the use of economic models in education and quality will be considered in further detail in later sections.

constitutes an equitable system abounds. By what and by whose criteria is equity judged? Policies regarding access, assessment, and language are, for example, frequently implemented to address equity concerns. Some have argued that equity and quality are conflicting because the resources required to ensure equity for one group could have been used to improve quality for another group. Others have argued that equity can be used to define quality in that a quality education is when all students receive the same education (from inputs to outcomes) as the most advantaged group (Hickling-Hudson, forthcoming). As a result, legal stipulations and funds to ensure compliance are invoked to avoid discriminatory practices regarding the use of resources.

Like efficiency and equity, the term quality has a number of uses and has both descriptive and normative characteristics. Quality may either be an attribute or an intrinsic characterization of an individual or organization. Quality may also be a reference to status or worth (e.g. one school is good, while another is bad). Adams notes that in the context of education reform, most discussions of quality imply a normative use and is “often defined, synonymously with effectiveness, as the degree to which objectives are met or desired levels of accomplishment achieved” (p. 7).

Adams’ second objective is to clarify the multiple definitions of educational quality. Definitions are frequently touted on the order of good quality producing good results, but without a clear understanding or explanation of what makes good quality lead to good results. The same conceptual confusion applies to the normative lens often used. What makes one school “better” than another? That which makes it better is frequently omitted from the discussion. Adams notes six common views of quality in the literature:

quality as reputation, quality as resources and inputs, quality as process, quality as content, quality as outputs and outcomes, and quality as “value added”.

Quality as reputation is most commonly applied in higher education (though lower levels are certainly not excluded) as a means of determining public consensus on what a ‘good’ school is. *Quality as resources* (or other inputs) is popular with accreditation bodies and is used extensively in the work of international agencies and donors where their support to inputs are easily measured and counted (e.g. number of teachers trained, number of classrooms built, etc.). *Quality as process* stresses the intra-institutional interaction of multiple stakeholders as key to quality education, not just inputs or results. Student and teacher engagement and interaction are frequently cited as proxy indicators of quality as process. The most readily used conceptualization of quality is *quality as output or outcome*, despite the challenges in measurement. Typical measures include achievement of cognitive skills or on standardized exams, and entrance ratios to next levels of education.

Quality as value added looks at the impacts, influence, or effects of the system on the student. This is commonly expressed in broad terms as increasing capacity or economic returns, either for a student individually or a community or country as a whole. The implication of the value added definition is that the higher the quality of education, the better the contribution to the knowledge, attitudes, values, and behavior of the students and their impact on society. Finally, *quality as content* reflects a system’s value of some body of knowledge, skills, or information. Trends toward common educational content globally are emerging as are definitions of core competencies for learners. Two or more of these individual conceptualizations are generally discussed in relationship to

each other to define quality more broadly. For instance, quality as process (such as teacher interaction) is compared with quality as outcome (an indicator like student achievement) to determine either the strength of the effect of the relationship between the two.

Finally, Adams attempts to operationalize the concept of quality. Adams notes that “any definition of quality may be subject to criticism and possible rejection by those who have different expectations or understanding of the purposes and capabilities of educational institutions” (p. 21). Given both this reality and the varying approaches to quality, it seems then that when invoking quality (either for descriptive or normative purposes) it is important to: clarify the objectives; understand the ethical and moral constraints; know the strengths and limitations of the system; monitor and evaluate the system’s performance using well-defined indicators (keeping in mind that the defining and measuring of these indicators is contentious); and make a long term commitment to refine the full range of meanings and standards of quality.

Since Adams’ paper, international bodies and other critical writers have attempted to likewise clarify the concept of quality. Colby (2000), though claiming to provide a more concise definition of quality education, also presents a complex and multi-faceted conceptual understanding, including multiple elements: (1) learners are healthy, well-nourished, ready to participate, and are supported by family and community; (2) environments provide adequate resources and facilities, and are healthy, safe, protective, and gender-sensitive; (3) content relevant for the acquisition of basic skills reflected in curricula and materials, especially in literacy, numeracy, life skills, and areas such as gender, health, nutrition, HIV/AIDS prevention, and peace; (4) processes through which

trained teachers use child-centered teaching approaches in well-managed classrooms and schools and utilize skillful assessment to facilitate learning and reduce disparities; and (5) student outcomes of knowledge, skills, and attitudes that are linked to national goals for education and citizenship. Colby's categories of quality are similarly grouped to Adams' schema and she is also unable to provide a concise definition of educational quality. This further highlights the complexity of the concept; the elements of quality are interrelated and systemically embedded in a cultural, historical, political, and economic context.

The 2005 UNESCO Global Monitoring Report *Education for All: The Global Imperative* summarizes the debates, histories, and evolutions of different conceptions of quality education. The authors define two key principles that characterize most attempts to define quality education across stakeholder groups: first, identifying learners' cognitive development as foundational and an explicit objective; and second, promoting values and attitudes of responsible citizens and creative and emotional development. These principles were integrated into the Convention on the Rights of the Child in 1990, and underpin UNESCO's and UNICEF's work on quality education improvement. Yet, there exists little agreement on how best to identify and measure learners' cognitive development, and very little research is conducted on creative and emotional development of learners (Leu, 2005).

UNESCO develops its own framework of quality by breaking it down into four core dimensions:

- *what* learners should learn and how the education system articulates that through its policies, mission, standards, and curriculum;

- *where* learning occurs, as situated in a classroom, home, community, national economic, and social context which is impacted by its human and material resources;
- *how* learning happens, through the teaching and learning process; and
- *what* learning has actually taken place, as measured by the outcomes of knowledge, skills, competencies, attitudes, and values.

These dimensions should seem familiar – they characterize the inputs, the context, the process, and the outputs that characterize much of the same quality concepts that have been discussed thus far. UNESCO also develops a conceptual framework of the central dimensions that influence quality. The framework demonstrates the various factors related to quality ranging from those of the learner, the inputs, teaching and learning (process), the outcomes, and the overarching context. The framework is directional in that the factors lead to a measurement of outcomes, yet context shows to be related to each component of the framework.

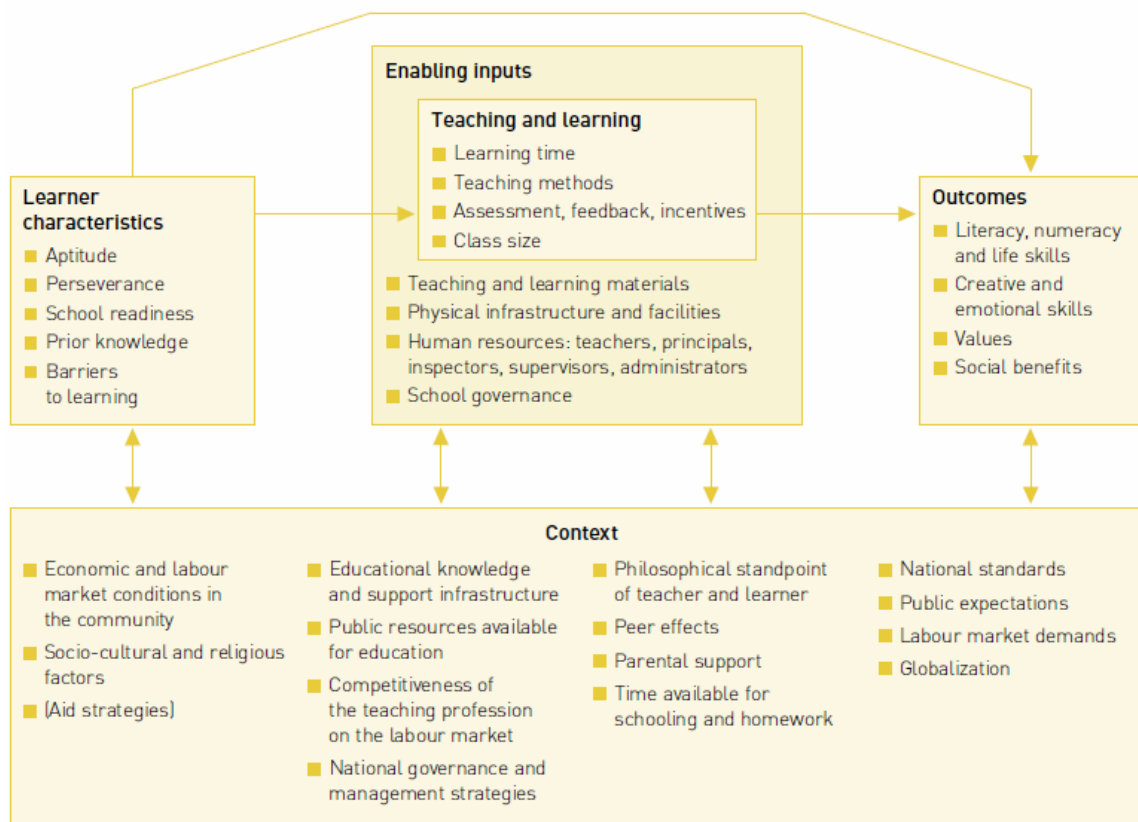


Figure 1 - A Conceptual Framework of the Factors Related to Education Quality

Source: UNESCO, 2004

Samoff (2007) notes that the overarching trend in these discussions is that educational quality is almost exclusively defined by student achievement on national examinations – namely the “what” (in UNESCO’s quality framework) of learning that has taken place. The logic of this is simple: education systems set standards and operationalize them through curriculum and teacher preparation. National examinations then measure the students’ mastery of the curriculum. The best indicator of a high quality of education is thus a high score on the national examination. If performance is high, then one can conclude that the quality of the education system is high, and if performance is low then one can conclude that the quality of the education system is also low.

Samoff argues however that this conceptualization has frequently led to the “black box” problem in education. This inevitably leads to a short-sighted focus on the parts of the system that are easily measurable and can be directly linked to the outcomes. The system provides inputs (like teacher guides, materials, facilities) and measures the outcomes (usually national examination scores). This is known as the input-outcome paradigm. We saw this paradigm in Adams’ (1993) conceptualization of quality, yet his warnings on the complexities of operationalizing quality seem to be largely forgotten. Indeed, a wealth of research has focused on this input-output paradigm and has resulted in oft-cited and circular literature on what is essentially school effectiveness.⁴ In fact, UNESCO’s 2005 EFA monitoring report on educational quality spends the majority of the chapter citing the research on school effectiveness. There is good reason for this. Alexander (2008) notes the twofold attractiveness of school effectiveness research. First, it is easily mapped onto the input-output paradigm and forms a readily accessible and well-recognized conceptual framework. Second, it readily translates quality into quantity by using easily measurable indicators such as survival rate, pupil-teacher ratios, class size, time on task, and so on.

To complicate the already problematic nature of school-effectiveness literature, the measurement of the variables is itself a highly problematic venture. To measure global progress toward the EFA goals, UNESCO uses an Education Development Index (EDI). To specifically measure the quality of education, the EDI indicator is the survival rate to grade 5 of primary education (UNESCO, 2004, p. 136). Alexander (2008) highlights the somewhat ridiculous nature of this indicator by noting, “Thus we are left

⁴ See Bartlett’s 2010 literature review on models for improving student achievement.

with the bizarre equating of ‘quality’ with ‘survival,’ and the implication in that unfortunate choice of words that education is an ordeal rather than a pleasure. ‘How good was your school?’ ‘Outstanding: I survived to grade 5’” (p. 8).

Other researchers like Hanushek (2004) and Hanushek and Wößmann (2007, 2008, 2009) view quality as output alone: the achievement of basic cognitive skills, as measured by standardized tests. While the debate continues about how best to test and measure them, Hanushek states that most parents and policymakers would agree that cognitive skills are a desired outcome of schooling. Hanushek also notes that much of the discussion surrounding quality lately, especially in the U.S. context of high-stakes standardized testing, is a result of new efforts to provide better accountability for the expenditure of resources.

Indeed, multiple studies have investigated the impact of cognitive skills on individual income (Vegas and Petrow, 2008; Hanushek and Wößmann, 2007; UNESCO, 2004) and concluded that the higher the achievement, the higher the income. Other studies (Hanushek & Wößmann, 2008; Orazem, et. al., 2007; and Vegas and Petrow, 2008) have investigated the impact of cognitive skills on international differences in economic growth. The findings specify that school attainment only increases economic growth if cognitive skills are also improved. The conclusion is that cognitive skills reflect quality of education which in turn impacts growth. Hanushek and Wößmann’s 2009 study in Latin America concludes that “a crucial missing link in explaining why Latin America went from reasonably rich in the early post war period to relatively poor today is its low cognitive skills” (pg. 1). Thus, the basis for the argument of shifting from

attainment to quality, *as defined by the achievement of basic cognitive skills*, is established.

To measure such skills, educational assessments have been used since the beginning of national systems of education that started in France in the nineteenth century. Alfred Binet, the father of intelligence testing, created an assessment instrument for use in French schools to help predict which students would be most likely to succeed (Wagner, 2010). Since then, assessments have been used for various purposes including political, accountability, and resource allocation purposes. In reviewing the literature on educational quality, the vast majority of the studies rely on some type of assessment of cognitive skills as a proxy for educational quality.⁵ Large-scale educational assessments have been increasingly used by national and international agencies since the 1980s. Previously, only a small number of cross-national large-scale assessments had been conducted, mostly by the International Association for the Evaluation of Educational Achievement (IEA). But with the advent of the EFA and MDG goals, increased focus on measuring educational outcomes and accountability has resulted in the proliferation of assessments to measure and compare progress. Four main types of assessments have since been utilized to attempt to measure these skills: national, regional, international, and hybrid. Each are briefly discussed in turn.

The use of national assessments by governments in developing countries has grown rapidly. Between 1995 and 2006, the number of national learning assessments grew from 28 countries to 57 countries (Benavot and Tanner, 2007, p. 6). National assessments evaluate all students in a given national educational system. The results are

⁵ Of course, implicit within the measurement of cognitive skill are the non-cognitive social, cultural, psychological, linguistic, and behavioral traits that are acquired through schooling and the broader educational and contextual environments.

used to: inform national policy, resource allocation, curriculum, teacher training, and take the pulse of the progress of the nation's educational system.

International assessments are meant to measure learning in multiple countries for the purposes of comparison on a variety of policy issues, rank ordering of achievement by nation or region or other variables, and within-country analyses that are compared to how other countries operate. More developed countries have typically participated in international assessments, but less developed countries are participating as well. Such tests include IEA's Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS), and the Organization for Economic Cooperation and Development's (OECD) Program for International Student Achievement (PISA). These studies are heavily funded for developing high quality instruments, sophisticated analyses, and rigorous fieldwork and testing (Wagner, 2010).

There are currently three regional assessments used in developing countries: the Latin American Laboratory for Assessment of Quality in Education (LLECE), the Southern and Eastern African Consortium for the Monitoring of Education Quality (SACMEQ), and Program for the Analysis of Educational Systems of the CONFEMEN (francophone Africa) countries (PASEC). These are used in a similar way to international assessment, but differ in that they have greater attention to local policy concerns and greater proximity in content between test and curriculum (Wagner, 2010).

Hybrid assessments are a new approach that seek to be more responsive to the needs and context of less developed countries, namely *smaller, quicker, cheaper* (Wagner, 2011). These assessments are used with literacy and numeracy skills in less developed countries and are a hybrid of larger scale methodologies shaped in response to

the challenges of assessment in less developed contexts. They are intended to be just big enough to get a nationally representative sample, faster at capturing and analyzing data, and cheaper in time and effort. The methodology is intended to be adaptable to local contexts and ethno-linguistic diversity. The EGRA is the key example of an internationally used hybrid assessment and has a number of these features (RTI, 2009). The goals of EGRA are different from international or regional assessments, as they are specifically used to identify gaps in basic cognitive skills and opportunities for reshaping teacher practice in reading (RTI, 2009).

All these assessments have been used to characterize educational quality in one way or another. They have been and will continue to be fraught with controversy. Critics argue that standardized testing only measures a very narrow range of cognitive skills. Research has also shown that a significant portion of statistical variance associated with student achievement results from factors that are outside of the school (Wagner, 2010), so the utility of assessments to hold schools accountable is limited. Further, assessments that ignore initial differences among learners can display misleading results (UNESCO, 2004). Reliability and validity of assessment data are also difficult objectives to meet, especially in less developed countries where resources and capacities for assessment are limited. But as the push for educational quality continues to grow, so will the concern for the continued improvement of assessment to most reliably and validly capture just how well students are learning. As Wagner (2010) notes, “There is no ideal assessment – rather, there are a variety of scientific approaches that can and will provide solid and credible avenues towards improving the quality of education. One size does not fit all” (p. 755).

Yet, as I have shown through the literature already reviewed, efforts to achieve educational “quality” are widely attempted and student achievement on some measure of cognitive skill is its mostly widely used measure. As literacy and numeracy skills represent the most basic of cognitive skills, they receive a great deal of attention in the literature. Literacy is itself the fourth EFA goal and is considered not only a basic cognitive skill, but also a fundamental right (UNESCO, 2006). According to Chabbott (2008), it is the most neglected of all the EFA goals. Wagner (2010) notes however that while reading is often seen as the most essential of all school-based cognitive skills (as evidenced by its inclusion in both EFA and MDG goals) it should not be taken as the only type of learning of importance. A wide variety of skills, attitudes, and values are a part of the schooling process, but literacy skills are more easily measured than the ‘softer’ metrics of attitudes and values.

What this wealth of literature does little of is focus on the process and development of learning. Samoff (2007) defines this as the *black box* of education, or what happens between the inputs and the outcomes. He notes that when improved inputs do not result in improved outcomes, there must be greater focus on what happens in between. Wagner (2010) further argues that in the input-output paradigm, little research has investigated the intermediate contextual variables and how they might be measured (p. 743). As Samoff (2007) notes, the process of the quality of education is much more difficult to measure and is thus much less researched, yet according to UNESCO (2005) (whose view of the literature is decidedly short) it is the most powerful determinant of children’s achievement in less developed countries.

Furthermore, little attention has been paid to the importance of other educational outcomes (creative and emotional skills, values, social benefits) even though they are included in widely accepted quality conceptual frameworks like UNESCO's. To this point, Alexander (2008) argues though that children's *emotional and social development* is key here, not the outcomes. He notes,

“children's creative and emotional development...are reduced to 'creative and emotional skills' presumably on the basis that skills are more controllable and amenable to measurement than is development. But what exactly is an 'emotional skill'? The ability to smile, rage or weep? And through the shedding of precisely how many tears for a suffering fellow-human is the emotional 'skill' of empathy measured and judged satisfactory?” (p. 7).

Alexander demonstrates the difficulty of reducing the quality of education to “measurable” outcomes. This problem is similar to the one I noted in earlier sections. How does one measure the concept of process of development?

The research on the process of quality has mostly narrowly focused on individual teacher variables, including levels of pre-service preparation and in-service professional development, and overall teacher capacity strengthening. Research from India and Brazil (Rangachar & Varghese, 1993; Fuller et al, 1999) has shown that teachers' level of education is a significant predictor of student achievement. Teacher use of time and interaction with students has also been an important area of research. Many schools in less developed countries face high incidence of teacher (and student) absenteeism (World Bank, 2003) as well as low motivation when teachers and students are in school (Centre for Development Economics, 1999). But researchers have noted mixed success on

teacher incentive programs as productive, cost-effective alternatives to more costly and time-intensive teacher trainings (UNESCO, 2004; Glewwe et al, 2003; Duflo et al, 2008). UNESCO (2008) notes that in less developed countries, scheduled time for Grade 1 children is only 700 hours per year, as compared with 850 hours per year in more developed countries. Studies investigating time on task and opportunity to learn (DeStefano & Elaheebocus, 2010) have noted the effect of improved achievement when instruction is made a top priority. But what is “time on task” really a measure of? Is it the amount of time or is it what happens during that time?

All these studies fall into the same trap of exploring one or a few individual variables’ relationship to student achievement and reducing the study of quality to some measure of school effectiveness. Can the process of education be reduced down to a few variables? Bartlett (2010) notes that the *way* teachers are engaging in their development is most important because it is likely to be reflected in their own practice as teachers. It is clear here that these various definitions of quality of education highlight the complex nature of the problem and that neither the problem nor the solution is easily defined or measured.

Argument for Early Grade Reading

Early grade reading has become a serious investment on the part of both national governments and bilateral and multilateral donors.⁶ In its latest education strategy, USAID identifies its main goal as promoting broad-based economic growth and democratic governance. USAID also identifies the same basic problem that has been

⁶ The scope of this research is limited to the main funders of education quality improvement programs in Ethiopia: USAID and the World Bank. While other bilateral and multilateral donors make significant contributions to quality improvement in Ethiopia and globally, serious investigation of these donors’ efforts is outside the scope of this research.

discussed thus far: that while access to schooling has greatly improved in the last decade, the quality of that education remains poor in most developing countries. Citing research by Hanushek (2009) that directly links educational quality with economic development, USAID proposes its three main goals to accelerate educational achievement. First, USAID will improve reading skills for 100 million children in primary grades by 2015. Second, USAID will focus on improving equity, expanding access, and improving the quality and relevance of tertiary and workforce development programs. Third, USAID will help to expand education for 15 million children in crisis and conflict environments.

The focus of this study is on USAID's first goal to improve reading skills as a larger strategy to improve the quality of education. After the 2000 EFA Conference and the development of the second Millennium Development Goal, USAID heavily invested in expanding access to education. USAID acknowledges that despite heavy investments into breaking down barriers to access, children in low-income countries are completing primary school at only 67% of the rate of high-income countries and that very little learning is happening in the classroom. USAID points to research that links learning outcomes directly to a country's economic growth. It notes:

A 10% increase in the share of students reaching basic literacy translates into a .3 percentage point higher annual growth rate for that country. Other research has shown that early grade reading competency is critical for continued retention and success in future grades. This link is especially relevant for low-income children, because they tend to have home and school environments that are less conducive to early reading development relatively to those of higher income children. Children who do not attain reading skills at the primary level are on a lifetime

trajectory of limited educational progress and therefore limited economic and developmental opportunity (p. 9).

Luis Crouch, the head of the Global Good Practice team at the Global Partnership (formerly the EFA Fast Track Initiative), made an identical argument during a 2009 presentation at a USAID-sponsored International Literacy Day Event. Citing Hanushek and Wößmann's 2007 study, Crouch argues that a quality education is linked directly to socioeconomic growth and development. To establish the linkage between early literacy and quality, Crouch, citing research conducted in the U.S. by Good et al. (1998), notes that early grade literacy is the key to the growth of quality of education. Good et al.'s research indicates that children who are below a certain level by the end of Grade 1 tend to stay behind, and the achievement gap begins and continues to widen from there. If children cannot read, they will fall behind in everything else, thus limiting their trajectory for individual future achievement and lowering overall system educational achievement. The fact that Good et al.'s research was conducted in a vastly different context from developing countries was not addressed.

The logical conclusion of Crouch's argument is that if a child's educational achievement trajectory is skewed from the beginning, so will be his/her overall quality of education. Thus, on a national scale, a country's socioeconomic growth and development will be stymied. The key weakness of Crouch's and USAID's argument is in the continued reduction of quality of education to a basic measure of student achievement. As I have noted, this is the tendency of the majority of researchers that claim to focus on quality. At least in part, the result of this is the renewed focus on the use of measurement tools to accurately measure student achievement on assessments of early literacy.

In response to the aforementioned argument, as well as several calls for the creation of a simple, effective, and low-cost measure of student learning outcomes (Abadzi, 2006; Center for Global Development, 2006; Chabbott, 2006; World Bank: Independent Evaluation Group, 2006), USAID developed its approach to improving early literacy through an initiative called Early Grade Reading Assessment (EGRA). USAID contracted RTI International in October 2006 through its EdData II project to develop an instrument for assessing early grade reading. The objective was to: “help USAID partner countries begin the process of measuring, in a systematic way, how well children in the early grades of primary school are acquiring reading skills, and ultimately to spur more effective efforts to improve performance in this core learning skill” (RTI, 2009, p. 2).

Since its inception, World Bank funded an application of the draft instrument in Senegal and The Gambia, and USAID supported the application in Nicaragua. Now, in addition to the World Bank and USAID, national governments and NGOs are funding the use of the assessment in many countries throughout the developing world. Though application of the EGRAs vary from country to country, the available instruments test a variety of subtasks which generate dependent variables, or student scores on the following components: letter (or fidel) sound fluency, phonemic awareness, word naming fluency, unfamiliar word naming fluency, oral reading fluency, reading comprehension, and listening comprehension. Family background questionnaires can also be administered directly to students, and head teacher and teacher questionnaires can be distributed at the school level to generate information on contextual factors that may predict achievement. In response to the findings of the various EGRAs, national ministries and education projects have developed teacher handbooks and designed teacher training and

instructional approaches to improve on the areas where the assessment indicated deficiencies.

Theories and Approaches to Literacy

Benavot et al (1991) note that the ‘basics’ of literacy are almost everywhere universalized; indeed, these are the ‘basics’ assessed with the EGRA. Yet, Alexander (2008) notes that this apparent universality disguises the fact that ‘literacy’ can have a multitude of meanings. For instance, the Anglo-Saxon tradition handles literacy in relationship to the written word only, while the continental European tradition treats oracy and literacy as contingent upon one another. Such differences highlight the need to unpack the concepts of literacy and language, and how they are related to educational quality development.

There exists a general consensus that the development of language is essential for thinking and for cognitive development more broadly. However, use of language is not easily reduced to the concept of “language competence” or a set of skills like sentence construction, grammatical correctness, and so on to be mastered. Such a conceptualization of language misses the key point that language must be used in functional and appropriate ways in sociocultural practices (van Oers, 2007). Rather, language is a practice that is “the mediator, the medium, and the tool of change in the major cognitive transition of early development” (Nelson, 1996, p. 350). This concept of language as a practice thus has major implications for the conceptualization of literacy. Opoku-Amankwa and Brew-Hammond (2011) lay out five different approaches to literacy including *Skills*, *Whole Language*, *Sociocultural Historical*, *Critical Literacy*, and the *New Literacy Studies* (NLS). Each of these approaches is discussed.

Skills approaches to literacy emphasize the development of specific skills like phonological awareness, decoding, letter-sound correspondence, and so on (Larson & Marsh, 2005). In this framework, literacy is conceptualized as a set of discrete skills that can be taught individually to achieve successful reading and writing and individual repeated practice of these skills is the driving force of the associated pedagogical approach. There are several assumptions associated with this framework. It assumes that children progress in similar ways and acquire skills in sequence. It also assumes that once skills have been achieved, they can be successfully applied to a range of situations involving reading and writing.

In contrast to the Skills approach, the Whole Language approach recommends a more holistic strategy to acquiring literacy skills that involves speaking, listening, reading, and writing, as integration of the various components of language is necessary for effective communication (Baker, 2001). Whole Language approaches are critical of the decontextualization and persistent error correction of the Skills approach. Baker (2001) notes:

Literacy instruction should be intellectually stimulating, personally relevant and enjoyable for the learner. This occurs when reading and writing involve real and natural events, not artificial sequences, rules of grammar and spelling, or stories that are not relevant to the child's experience, allowing choice by learner, giving children power and understanding of their world (p. 324-5).

Whole Language approach advocates for the use of real life experience and literature in the teaching and learning of literacy. This learning is thus socially constructed and overlaps with the Sociocultural Historical approach to literacy.

The Sociocultural Historical approach sees all learning as a “process of social interaction which takes place in a socially constructed context and in different modes, formats and shapes, making maximum use of all available resources in the school as well as home environments” (Opoku-Amankwa & Brew-Hammond, 2011, p. 91). Larson and Marsh (2005) posit that sociocultural literacy then regards individual cognitive development as a result of an individual’s participation with their social, cultural, and historical context, which are mediated by interaction between and among these factors. This approach relies heavily on the work of Lev S. Vygotsky, a Russian psychologist, who defined language as a symbol system that mediates between subject and an object; the relationship is demonstrated in Figure 2 below.

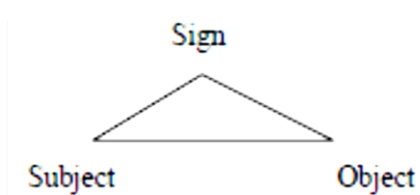


Figure 2 - Vygotsky’s language symbol relationships

Source: van Oers, 2007, p. 302

Vygotsky’s conceptualization of language focuses on the relationships between language symbols. The subject (the person, agent) can regulate his/her own actions on an object with the help of signs (e.g. language). This is essentially a cultural act because signs focus on relevant aspects of an object that are contextually specific and appropriate. Vygotsky notes, however, that in most educational situations, there is more than one subject, for instance a teacher who mediates the activity. The sign activity is thus an interpersonal process, where meanings are exchanged between subjects with the help of

signs (verbal means). This situation is represented below:

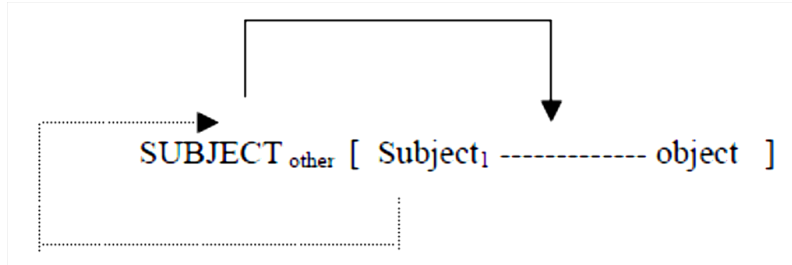


Figure 3 - Interpersonal Educational Process

Source: van Oers, 2007, p. 303

The subject₁ (student) acts on an object, but is influenced by the subject_{other} (teacher). The influence that the subject_{other} exerts can be through words, gestures, modeling, and so on. Vygotsky's triangle (Figure 2) still shows that a subject's activity is symbolically regulated, but in this case by an external agent. The subject can regulate the agent's actions by giving feedback on the agent's actions directed to the [subject – object unit]. Ultimately, this means that language can regulate human object-oriented activity, both intrapersonally and interpersonally.

This sign-using activity was critical to the development of Vygotsky's cultural-historical activity theory (CHAT). The signs refer to ideal entities, which are called meanings. Signs designate the meanings of the object and the acceptable actions within the ongoing activity or practice. Thus, the main function of signs is to represent, for personal purposes (thinking) and interpersonal purposes (communication). Vygotsky (1982) reasons that these sign functions, thinking and communication, are intrinsically related. If we accept Vygotsky's model that language is a sign system that refers to meanings (and not directly to objects of the world), then this model functions as a means for organizing human thinking and communication as an *activity system*, in which the set of elements described above are contained within a constructed boundary that

distinguishes them from those outside. Language thus provides a medium of communication for teaching and learning, and helps children construct a way of thinking. This model serves as a basis for conceptualizing literacy as an activity system that is bounded by cultural, social, and historical practices.

Based on Vygotsky's system of using signs, van Oers (2007) defines becoming literate as "the generalized ability of using sign systems for personal and interpersonal purposes within specific cultural practices" (p. 303). Thus, literacy is mastering written language and some forms of oral language, as well as forms of theoretical thinking. Van Oers argues further that if schools accept the obligation to teach literacy, they must also include in their teaching ways of developing literate *activity* in pupils, which is broader than just learning to read. This conceptualization of literacy has major implications for the early grade reading initiatives that are re-emerging in the global quality improvement imperative.

Upon this model of language and meaning-making, CHAT was born. More than seven decades ago, Vygotsky (1986) lamented that educational psychology was in a state of crisis because of the "atomistic and functional modes of analysis... [that] treated psychic processes in isolation" (p. 1). He also noted the artificial separation of intellect and affect:

as subjects of study [was] a major weakness of traditional psychology, since it [made] the thought process appear as an autonomous flow of "thoughts thinking themselves," segregated from the fullness of life, from the personal need and interests, the inclinations and impulses of the thinker (p. 10)

Though Vygotsky's model was left unfinished, several of his students, namely Engeström (1987), utilized Vygotsky's concepts to develop CHAT. Since then, CHAT has been used across a wide variety of disciplines to investigate real-world complex learning environments.

The usefulness of CHAT is that it leads to a new perspective on what is educationally relevant. The unit of analysis in CHAT is the activity itself which contains inherently dialectic relationships between persons and societal wholes which allows the analysis to spread across social and material environments and be mediated by a range of actors in a given context. This dialectic nature emphasizes that knowledge is not complete in and of itself; a unit can be analyzed in terms of component parts, but none of these parts can be understood or theorized apart from the others (Valsiner, 1998; Kincheloe, 2008). This perspective shares much in common with other sociocultural critiques and problematizes analyses that limit knowledge to something discrete or acquired by individuals. Thus, this theoretical perspective problematizes the Skills approach, which reduces literacy to concrete, measurable skills or subtasks.

Out of this critical approach, a wealth of literature has emerged in the past two decades called the New Literacy Studies (NLS) (see: Gee, 2004; Barton, 1994; Heath, 1983; Scribner & Cole, 1981; Street, 2005). These studies merge the cultural historical critique with the concept that there are multiple literacies that vary according to time and space and power relationships. Scribner and Cole's 1981 study on literacy of the Vai people in Liberia set the stage for the reconceptualization of literacy as a *practice*. Their study found that literacy was not responsible for great shifts in mental functioning that many policymakers expect today. Instead, they found that specialized forms of reading

and writing (of which the Vai had a very unique system) have specialized and distinct effects that are highly contextualized. This practice was a “recurrent, goal-directed sequence of activities using a particular technology and particular systems of knowledge” (p. 236). Literacy, as a socially organized practice, “is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use... in order to identify the consequences of literacy, we need to consider the specific characteristics of specific practices” (p. 236-237).

Street (1995) differentiated between autonomous literacy and ideological literacy. The autonomous model views literacy as something that is acquired and separate from its sociocultural context. This autonomous literacy claims to improve cognitive skills, improve economic prospects, and make people better citizens. Street’s autonomous literacy model is essentially the Skills approach to literacy, and is echoed in the EGRA. In response, Barton (1994), Gee (2004), and Street (1995, 2003, 2005) offer a different model, the ideological model, that assumes that “literacy is a set of social practices that are historically, situated, highly dependent on shared cultural understandings and inextricably linked to power relations in any setting” (Opoku-Amankwa & Brew-Hammond, 2011, p. 92). This means that literacy as a social practice is comprised of sets of literacy events that are embedded in a particular context like home, work, school, playground, and so on. Larson and Marsh (2005) and Gee (2005) posit that this means being “communicatively competent across multiple discourse communities” (qtd. in Opoku-Amankwa & Brew-Hammond, 2011, p. 92).

Hull & Schultz (2001) argue that the strength of NLS is that it focuses our attention on the multiple and dynamic landscapes of school, home, community, work, and

play. NLS provides a way to describe the relationships between these contexts and the way in which literacy practices and identity are mutually shaped. NLS has also eschewed traditional approaches to literacy that have relegated literacy to the school. Instead NLS accepts that literacy practices are found in school, but values the idea that out-of-school literacy practices are valuable and distinct from those associated with the school. Thus, the interactions and relationships between these multiple literacy contexts and practices become key to understanding what the concept of literacy is.

Critical Literacy studies build on the Sociocultural Historical and NLS approaches, but also focus on the notion of agency and power. Luke and Freebody (1997) defined critical literacy as “a coalition of educational interests committed to engaging with the possibilities that the technologies of writing and other modes of inscription offer for social change, cultural diversity, economic equity, and political enfranchisement” (p. 1). Paulo Freire’s work (1972, 1985) argues against the “banking” concept of education (seen already through the Skills and autonomous model approaches to literacy) in which students are empty vessels to be filled by the teacher. Instead, Freire favors a dialogical pedagogy that is intended to raise a student’s level of consciousness about their context in order to transform oppressive social and power structures through “praxis” or the act of reflecting and acting upon the world in order to transform it; literacy is itself a key part of “praxis”. Freire believed that the ongoing production of the social world through dialogue occurs in dialectical interplay with the structural features of society such as its social relations of production, cultural formations, and institutional arrangements. Freire proposes a system in which students become more socially aware through critique of multiple forms of injustice. This awareness cannot be achieved if

students are not given the opportunity to explore and construct knowledge. Freire's work was utilized as a starting point for literacy campaigns around the world, specifically in reference to empowering people to question and shape their worlds.

None of these critical frameworks, namely cultural historical (including CHAT), NLS, and critical literacy, exist in a vacuum. Together they form a comprehensive view of learning, language, and literacy that researchers and practitioners can simultaneously draw from to apply to their contexts. Larson & Marsh (2005) note: "By viewing learning as changing participation in a culturally valued activity that is mediated by interaction and cultural tools for thinking, such as literacy, teachers can construct authentic contexts for learning that prepare students for participation in a global information and communication economy" (p. 127). As such, my study will draw specifically on the approaches of the NLS and CHAT.

The vast majority of critical studies utilize qualitative research methods, in particular ethnography. The nature of the NLS approach is well suited to ethnography as a means to explore a context in deep, rich detail. Indeed, the emergence of NLS in the past two decades mirrors the emergence of ethnography as a valuable methodological approach for educational research in the past two decades. The weakness of this approach, however, is in the resulting difficulty of comparability. Relative comparability is critical for policy-makers to make decisions regarding resource allocation and the direction of an educational system. The push for policy to be "evidence-based" is a pervasive force that will not soon be abandoned by either researchers or policy-makers. To ignore this fact is short-sighted and severely limits the utility and accessibility of the important findings of critical approaches. I argue that critical approaches to literacy

studies would benefit from the combined strengths of the data sources and methods valued by both “evidence-based” and ethnographic approaches. This is explored in-depth in chapter 4.

Conclusion

This chapter has highlighted the challenges of conceptualizing and operationalizing the concepts of educational quality and literacy. It has, however, attempted to critically examine the uses of the concepts in current policy efforts to improve overall educational quality. It has also laid out critical theoretical frameworks upon which I ground my study. As such, my research is situated within the NLS and CHAT approaches that frame literacy as a practice that is irreducible to a set of neutral or technical skills, as it has been traditionally perceived and is reemerging in the latest discourse on quality education. I explore literacy in Ethiopia as practice that is embedded and practiced within social and cultural contexts, namely those out-of-school and in-school. Echoing Street (1991), I explore why, when there are so many different types of literacy practices, is literacy being reduced down to skills to improve reading and writing?

Chapter 3: Quality and Literacy in Ethiopia

Introduction

As a signatory of the regional and global EFA proclamations in the past decade, Ethiopia has made remarkable progress toward achieving a part of the EFA goals. Since the overthrow of the Derg in 1991, the primary gross enrollment rate has increased from less than 30% to over 90%. But like many other developing countries, standard indicators of educational quality suggest that the quality of the education system is not keeping pace with its increased accessibility. Specifically, Ethiopia's latest NLA in 2007 shows a significant decline in achievement when compared with scores from the 2000 baseline. Only 13.9 percent of students scored more than 51 percent – the standard to pass the national examination – 24 percent of students scored 51 percent, and the majority, 62.1 percent, scored below 51 percent. Further, data collected through the EGRA in 2010, show that at least 80% of children are not reading at the expected oral reading fluency rates. While children attend school in Ethiopia for two or three years, a significant percentage of them remain illiterate (Piper, 2010).

These issues, and specifically their relationship to the concept of quality of education, have been widely acknowledged by the Ethiopian government and its international development partners. It is already clear that the quality policy agenda in Ethiopia is framed and measured by the tendency to reduce quality down to student achievement on selected assessments. This fact will frame the following discussion of the development and structure of Ethiopia's education system and highlight policies that are being implemented to improve quality.

Educational Development in Ethiopia

With an estimated population of over 80 million people, Ethiopia is the second most populous country in Africa, after Nigeria, and is made up of over 80 ethno linguistic groups. Approximately 12 million of Ethiopia's people are pastoralists and 80 percent of the population lives in rural areas. After the fall of the Derg (Ethiopia's communist military regime) in 1987, the government committed itself, in large part from the urging of the international community, to a massive fiscal and political decentralization effort. Ethiopia has invested heavily in physical infrastructure and human resources over the past decade and the economy has achieved impressive growth at about 11.8 percent annually between 2004 and 2007. Yet, Ethiopia remains one of the poorest countries in the world. In 2010, Ethiopia ranked 157 out of 169 nations with comparable data on the Human Development Index, a composite indicator of health, education and income. With a per capita income of less than US\$180, 39 percent of the population is estimated to live below the poverty line (MOFED, 2006). The development of the education system figures heavily into Ethiopia's national strategy for the development of human capital as a strategy for economic growth and poverty reduction. Figure 4 below displays a brief snapshot of Ethiopia's common development indicators as they compare to its larger region of Sub-Saharan Africa.

Indicator	Ethiopia	Sub-Saharan Africa
2010 Human Development Index ranking	0.328	0.389
Health expenditure per capita (\$)	14.7	75.9
Under-five mortality (per 1,000 live births)	109	121.2
Life expectancy at birth (yrs)	58.1	53.8
Under-five mortality (per 1,000 live births)	105.9	121.2
Prevalence of undernourishment (% of children under 5)	34.6 (2005)	24.6
GNI per capita (PPP US\$)	\$390	\$1,176
GDP growth (annual %)	10.1	4.8

Youth literacy rate (% aged 15 – 24)	44.6	71.9
Adult literacy rate (% aged 15 and above)	29.8	62.3
Primary completion rate, total (%)	55.2	66.9
Ratio of girls to boys in primary and secondary education (%)	87.9 (2009)	88.6 (2009)
Expenditure on education (% of GDP)	5.5 (2007)	3.8 (2008)
Pupil/Teacher ratio	57.9 (2009)	46.3 (2009)
Internet users (per 100 people)	.5 (2009)	8.8 (2009)
Urban population (% total)	17.6	37.4
Fertility rate	4.4	5.0
Improved sanitation facilities (% population with access)	12	31.4

Figure 4 - Ethiopia Development Indicators

Source: International Human Development Indicators, UNDP and the World Bank. All dates are 2010, unless otherwise noted.

Ethiopia established its first modern school in 1908. Until 1944, there was no formal system for teacher education and only in the 1960s did Ethiopian institutions begin offering certificates, diplomas, and Bachelor of Arts Degrees. There was a growing dissatisfaction with the education system and in response, the government initiated a study called the Education Sector Review in 1971 to reform the education system of the country (Wudu et al, 2009).

This process was discarded in September 1974 when the Derg, the military regime self-identified as a revolutionary socialist government, took over rule of the country. The Derg was highly centralized and limited the participation of regional and *woreda* (district) governments, closing their educational institutions. The Derg expected that the education system would precipitate a ‘cultural revolution’ and change the mindset of the people to abandon traditional practices (e.g. superstition, witchcraft) and ‘anti-revolutionary’ attitudes including tribalism and regionalism (Yigezu, 2010). The Derg managed the centralized training of teachers for the three levels including

elementary (grades 1-6), junior secondary (grades 7-8) and secondary (grades 9-12). During this time there was a large expansion of schools and a significant number of untrained teachers were employed to serve as teachers. In response to regional pushback, the Derg launched a reform study called Evaluative Research of the General Education System in Ethiopia in 1983. The resulting Ten-Year National Perspective Plan (1984-1994) set policy statements for education, including the development of new curricula (Wudu et al, 2009).

After the fall of the Derg, the transitional Ethiopian government recognized the inadequacy of the education system. The government thus developed a new Education and Training Policy (ETP) in 1994 that highlighted, among other things, the challenges that the education system faced including complex and interrelated problems of relevance, quality, accessibility and equity. To address these concerns, the new Government of Ethiopia (GOE) adopted new, more relevant curricula and made administrative changes towards decentralization as the cornerstone for building a multi-ethnic democratic country (Wudu et al, 2009).

Historical Roots of Education

Ethiopia is one of the few countries in Africa that was not under extended colonial rule, and as a result, it has remained relatively impervious to outside influences throughout its historical development. Western powers attempted to gain both political and military influence in Ethiopia for centuries, but were unsuccessful in exerting control over the country for a significant length of time. Attempts in the 20th century began with France from the early part of the 20th century until 1935, Italy from 1935 to World War II, Great Britain during and after World War II, the United States from 1960 until 1973,

and the Soviet bloc from 1974 until 1991. With the exception of the Italians for a brief period during World War II, they were all notably unsuccessful (Levine, 1965; Levine, 2000; Pankhurst, 1998; Wagaw, 1979; Zewde, 2001). Further, under the Communist Derg regime (1974-1991), Mengistu Haile Mariam (the highest officer of the regime) limited outside access to Ethiopia. As a result, Ethiopia's traditional approach to education has remained relatively preserved, especially as compared with other sub-Saharan African countries (Piper, 2009).

Ethiopia's traditional educational culture is heavily influenced by its history of church schools, namely those of the Ethiopian Orthodox Church. Ethiopia's largest religion is Ethiopian Orthodox Christianity, which was established as the official religion in the 4th century. Until the early 20th century, nearly every educated Ethiopian (typically male) was educated in an Ethiopian Orthodox church school, which is recognized as one of the oldest educational systems in the world. Even after the advent of modern schools in Ethiopia, the Ethiopian Orthodox Church continued to train students in the traditional Orthodox manner (Serbessa, 2006). The purpose of the church school was initially to train priests and educate students in the existing order of God's creation through the traditional subjects of theology, philosophy, computation, history, poetry and music (Wagaw, 1979). While early historical data on education in Ethiopia is scarce, Pankhurst (1992) provides a rich description of medieval educational practice, provided by a Swiss missionary to Ethiopia, Gobat:

Having learned to read...they were required to commit to the Gospel of St. John, and to study several of St. Paul's Epistles and a number of the Homilies of St. Chrysostom; after which they were assigned the task of learning by heart the

Psalm of David, the *Waddase Mariam*, or Praises of Mary, and several prayers, and were supposed to memorize long lists of Ge'ez words. After this they would sit at the feet of renowned masters who would explain to them the scriptures and other texts, including...traditional Ethiopian code of law. The course thus embraced seven years on chanting (music), nine years on grammar, and four on poetry...after which the student had to face the sacred books of the Old and New Testament. There were in addition courses in civil and canonical law, astronomy and history (qtd. in Pankhurt, 1992, p. 130).

Instruction was didactic in nature and it was considered a sin to inquire into the mysteries of God (Levine, 1965). Teachers instructed students through memorization of Psalms and songs and were also made to repeat them orally back to the teacher. This intensive process rewarded those able to memorize.

This long history of didactic instruction catered almost exclusively to males and Piper (2009) notes that this tradition did not lend itself to a culture of “Western”, or student-centered, pedagogy, nor to an equitable distribution of educational opportunity to girls. The educational culture of traditional church schools also shifted to public schools. Priests were also often hired as teachers of Amharic in public schools, and with them they brought these traditional instructor-based and male-oriented approaches into the public school system, as they received little other training or preparation for public school teaching (Wagaw, 1979). Serbessa (2006) notes that the history of church schools created a culture where "the mastery of what is essentially a stable body of knowledge passed on through the generations - there is little sense of knowledge as dynamic or changing, of the need for creativity or invention" (p. 132).

In addition to the educational culture based on the traditional church school, the development of education in Ethiopia has followed a different trajectory than that of other sub-Saharan African countries for three reasons: 1) the miniscule amount of education provided to the local population (albeit usually the elites) by the Italians during their brief occupation of Ethiopia, compared with that provided by the British and even French colonists elsewhere in Sub-Saharan Africa; 2) the massacres of educated persons in 1937 by the Italians and in the mid-1970s by the Derg, and the difficulties of the intellectual elite in the 2000s which limited the influence and involvement of educated Ethiopians over their own education system; and 3) the neglect of the education system by the Derg from 1974 through 1991 (Piper, 2009). As a result of these factors, after Ethiopia's emergence from civil war in the early 1990's, its primary level education system served very little of the population, much less than other Sub-Saharan African countries. That Ethiopia has achieved the enrollment gains it has in the past ten years is quite remarkable.

Teacher-Centered Instruction

In Ethiopian culture, respect for authority is one of the most important characteristics. When elders walk into a room, everyone stands up to greet them. Deference is always given to older people (particularly men) when eating. In Amharic, Ethiopia's national language, there are specific forms for addressing elders. In schools, when a teacher walks in the classroom, the students rise and greet him or her in unison (Piper, 2009). Wagaw (1979) suggested that education was both respectful of authority as well as "punitive" for even slight disrespect. Serbessa (2006) argues that "obedience and politeness are the overriding goals in bringing up children among some Ethiopian nations

and nationalities" (, p. 132). It seems then that the educational culture serves to reinforce these values through the hierarchical relationships between managers, teachers, and students, making western models of student-based learning incongruous to the local educational culture. Piper (2009) notes a key point that the literature has not fully explored is the impact that a teacher's own experience as a student — taught using teacher-centered instruction — has had on that teacher's pedagogy. Lortie's prior research (1975) similarly noted that the pedagogical techniques present in the system at the time of observation were of a generationally reproductive nature.

Decentralization

Upon this educational cultural history, the 1995 Ethiopian Constitution created an ethnic federal government that granted each of (now) nine autonomous regions and two city administrations the ability to manage their own affairs (Negash, 1999; Abebe, 2006). A number of reasons informed the decision to decentralize the education system including efficiency, responsiveness to stakeholder needs (Negash, 1999), an interest in diminishing ethnic inequalities (Abebe, 2006), and a means to differentiate the government from its centrally-controlled, repressive predecessor (Grant Lewis & Motala, 2004).

Accordingly, the education system is now deeply decentralized and the implementation of education is primarily the responsibility of the region. The central MOE provides policy and technical support, but decision-making power is held by the regional state educational bureaus (RSEBs) (TGE, 1994a; TGE, 1994b). At the RSEB level, each Regional Bureau of Finance and Development provides block grants to the *woreda* (district), thus moving financial responsibility below even that of the regions.

Administrative power is devolved from the RSEB to the zonal education department. The zone is an administrative body concerned mostly with managing the *woreda* education offices, where education is supervised, implemented and funds are disbursed. At the next level is the *kebele* (village), which is between the school and *woreda*. The *kebele* education and training boards are responsible for the day-to-day management of schools.

As mentioned, after the fall of the Derg, the transitional government of Ethiopia began implementing the *New Education and Training Policy* (NETP) in 1994. The NETP, referencing constructivist theory (TGE, 1994b), focused the educational system on the implementation of a "new" curriculum that moves away from rote student learning, and promoted the use of active-learning pedagogies and student-centered education (TGE, 1994a; TGE, 1994b; Gidey, 2002). This policy was enacted concurrently with the decentralization of the Ethiopian education system, and while the policy did not provide examples of how the constructivist nature of the new curriculum should be implemented explicitly, it did provide space for local control and ownership of the implementation of the curriculum. The NETP influenced the following *Education Sector Development Program I, II and III* (MOE, 2008), and now *IV* (MOE, 2011).

Teacher Education

Until the late 1990s, pre-service teacher-training institutions served mostly to provide teachers with additional years of subject-matter knowledge and lacked in pedagogical training (Honig, 1996; Gidey, 2002). In the late 1990s and early 2000s after the introduction of the NETP, the pre-service teacher education system faced the challenge of preparing teachers for the new curriculum. With the new curriculum came a new constructivist teaching philosophy that challenged teachers who faced the

pedagogical realities of teaching in under-resourced schools with large class sizes (Bloor & Tamrat, 2001). Piper (2009) notes that this is partially due to a teacher system in which secondary school teachers were promoted to become teacher educators in the pre-service training institutions for primary-school teachers without first-hand knowledge of rural primary schools and nearly no experience teaching in them.

According to Ethiopia's national standards, first-cycle primary-school (Grades 1–4) education requires teachers to have the minimum qualification of a certificate from a Teacher Training Institute (TTI), while a second-cycle primary education (Grades 5-8) teacher must have a diploma from a Teacher Training College (TTC) in a three-year program. Through distance education, teachers who gained employment without qualifications could upgrade their qualifications to a diploma to move to a second-cycle position, where they were paid more and were less likely to work in rural areas. But now, all primary (Grade 1-8, both first and second cycle) teachers must earn a 3-year diploma in a College of Teacher Education (what used to be the TTCs) with differentiation between first and second-cycle preparation (MOE, 2008).

The lack of well-equipped teacher trainers (Honig, 1996; Gidey, 2002), substandard facilities (GWU, 2003; AED, 2004), the lack of the pre-service practicum (Livingstone et al, 2002), and the inability of institutions to work with the new curriculum or implement active learning in classrooms (AED, 2004) have all been documented as specific challenges in the teacher education system. As such, teacher professional development has been and continues to be priorities for the MOE. Prior to 2002, teachers could participate in an upgrading program, which allowed them to improve their credentials from a certificate to a diploma and from a diploma to a degree,

which is needed in order to teach in secondary school. They could also participate in the cascade model of in-service teacher-training approaches. Many critics (Gidey, 2002; Leu, 2002; Mekelle University, 2008) have found that both styles of in-service training have proven to have little positive impact on teacher pedagogy and student achievement in Ethiopia.

To address these challenges, the MOE drafted the Teacher Education Systems Overhaul document (MOE, 2003) that established a professional teacher-development program designed to increase the frequency and quality of cluster-based in-service teacher professional development. The Teacher Education Systems Overall program was replaced in 2003 by the Teacher Development Program (TDP) (MOE, 2003), and followed up by TDP II to be implemented as part of the General Education Quality Improvement Program, which will be discussed in following sections. These programs included activities designed to change teacher pedagogy and improve student achievement. They are delivered at the school level and include content developed at the federal, regional, and local levels.

Teacher preparation is not the only challenge facing the education system. The expansion of the educational system has also created a serious shortage of teachers. According to the Ministry of Education (2004), 97.1 percent of the first-cycle (Grades 1-4) and 28.7 percent of the second-cycle (Grades 5-8) primary-school teachers were certified in 2002-2003. The percentage of certified secondary-school teachers was 39 in 2002-2003. The table below describes the progression of certified teachers between 2000-2001 and 2002-2003.

Table 1 - Certified Teachers

Year	Primary		Secondary
	Certified teachers Grades 1 - 4	Certified teachers Grades 5 - 8	Certified teachers Grades 9 - 12
2000-2001	96.6	23.9	36.9
2001-2002	95.6	25.5	33.7
2002-2003	97.1	28.7	39.0

Source: Lasonen et al, 2005

As one can see, the progress of certifying teachers has not been keeping pace with the demand, especially as more and more teachers are hired to meet expanding enrollment. The pupil teacher ratios have also been increasing in the last years on the lower grades. Table below describes the progression of pupil teacher ratios between 2000-2001 and 2002-2003. In reality there are often 50 to 100 children in a school class. In addition, both evening and morning shifts are often taught by the same teachers.

Table 2 - Pupil Teacher Ratios

Year	Pupil/Teacher Ratio		Pupil/Section Ratio	
	1-8	9-12	1-8	9-12
2000-2001	60	46.3	70.4	78.2
2001-2002	63	49	73	80
2002-2003	65	45	73	77

Source: Lasonen et al, 2005

One can see through these data that the slow pace at which teachers are being certified has not been keeping pace with the increasing pupil/teacher and pupil/section ratios.

Resource and System Constraints

The Ethiopian education system is heavily influenced by resource and system constraints. Class sizes are quite large; 2008 estimates indicate that the primary and secondary pupil/teacher ratios are 59 to 1 and 48 to 1, respectively (MOE, 2008). The number of schools has rapidly expanded, but they are under resourced and lack materials,

teaching aids, and books. Especially in rural Ethiopia, where the vast majority of people live on meager day-to-day incomes from agricultural production, the opportunity cost of sending children to school when they are needed for work in the home is significant.

Resource constraints also cause Ethiopia to use examinations as a barrier to entry into higher levels of education, as is common in many other sub-Saharan African countries (Piper, 2009). There has been considerable expansion of both private and public higher education institutions recently in the past decade, resulting in increased overall enrollment and intake capacities. But, as of 2008 (the latest data provided by the MOE), the gross enrollment rate in higher education was approximately 3.8%. While primary gross enrollment has increased to 91.7%, junior secondary gross enrollment is only 39.7%, and is more unevenly distributed geographically than elsewhere on the continent (MOE, 2011). Clearly, there remains a narrowing in enrollment both regionally and at the top of the education system.

The examination structure of the educational system is at least partly a reason for this. Ginsberg (2006) argues that understanding the nature and action of these examinations is critical to understanding the current educational culture in Ethiopia. The *Ethiopian School Leaving Certificate Examination* (ESLCE) is a multiple-choice test demanding factual knowledge (MOE, 2009). Wagaw (1979) argues that instruction in the schools was provided simply so that students could pass the tests, and that the curriculum was based on these major examinations.

The MOE (2007) also considers the low motivation of teachers and students, the lack of and/or non-use of teaching-learning aids, insufficient provision of reference materials, weak capacity to correctly interpret, plan, implement and monitor policies and

programed; and inadequate resources for operations to continue to be problematic. Hoot et al (2004) found that the reality that few would ever make it to higher education attributed to lower educational aspirations, and in rural areas, the opportunity cost of education likewise contributed to lower educational aspirations.

Further, constraints on the system caused in part by sudden modernization after the fall of the Derg and rapid increases in enrollment, have impacted the way that teachers interacts with students. The practice of "chalk and talk" instruction has been found throughout Ethiopian schools for the last several decades (AED, 2004; Honig, 1996; Gidey, 2002). Teacher-centered instruction is preferred in part as a means to manage the classroom (Asgedom et al, 2006; Dolisso, n.d.).

Language also poses unique challenges to the educational system in Ethiopia. Ethiopia's geo-political and decentralized education system units are defined by language and ethnicity. With over 80 different languages in Ethiopia, the MOE instituted a policy of mother tongue education instruction in primary schools. (English is used at the secondary level.) While it is well-recognized that children learn better in their mother tongue, teachers still face serious implementation problems arising from the lack of materials in appropriate languages for both teachers and students, the task of ensuring the national curriculum is translated for use in the classroom, and multilingual classrooms. Despite having one of the most progressive mother-tongue instruction policies on the continent, many children in Ethiopia begin school in an unfamiliar language.

The picture that emerges from these analyses demonstrates the considerable tension between access and quality (as viewed across a number of dimensions) in Ethiopia. The Ethiopian MOE has responded to the EFA goals through a series of policy

measures to improve access to the system, but the increased access has flooded the system's capacities to handle the influx of students. Resources are stretched, schools are overcrowded, and teachers are in-demand and ill-prepared.

Assessment

The MOE and several local and international consultants constructed assessment instruments to comprise the NLA for fourth and eighth grades. The assessment was administered for the first time in 2000, for the second time in 2004, and most recently in 2007. These instruments included tests of mathematics, science, mother-tongue reading, and English, with forty multiple choice questions each at fourth grade, and chemistry, physics, biology, mathematics and English at eighth grade. During the last assessment, grades ten and twelve were also added. The test was originally created in Amharic, and then translated into the appropriate languages of instruction by the Ethiopian regional bureaus of education. The assessment also asked school directors to complete two surveys. The first sought responses that described the physical infrastructure and community of their school, and the other dealt with management issues in the school. Currently, Ethiopia does not participate in any international comparative assessments, but in its latest Education Sector Development Plan (2011) the MOE noted its intention to join regional and international assessment organizations for the purpose of comparability of student achievement. It does not, however, note which assessments they plan to join.

Quality Improvement Programs

As shown in the discussion above, the GOE has responded to the need to improve the quality of education. The MOE (2007) has clearly noted the challenges facing the country with regard to education quality, stating, "The achievements in enrollment have

not been accompanied by sufficient progress in the quality of education – in fact, in some areas, quality has deteriorated, at least partly as a result of rapid expansion” (p. 72). The GOE sees education as a key piece to achieving its long-term goal of becoming a middle-income country by 2025. The following sections explore how the MOE and the international community have responded to these challenges through quality improvement programming.

The 2007 NLA report noted that the key factors attributed to low student achievement included: poor school organization and management, inadequate teacher training on subject mastery and pedagogic skills, inadequate school facilities, and insufficient curricular and instructional materials (Kelleghan et al, 2009). The MOE’s vision for education development is described in their poverty reduction strategy (“Plan for Accelerated and Sustained Development to End Poverty” or PASDEP), with the ESDP IV serving as the overarching framework, giving high priority to quality improvement at all levels. The MOE’s first step to attend to the concern of education quality is their overall economic development, in conjunction with the World Bank, of the General Education Quality Improvement Program (GEQIP), a large and ambitious education quality improvement program. A key recommendation of the education sector Annual Review Meeting in 2007 was that MOE and its development partners (DPs) work together to implement the GEQIP through a pooled funding mechanism. Due at least in part to Ethiopia’s commitment to fiscal decentralization and democratic processes after the fall of the Derg, the World Bank, in coordination with other bilateral donors and the GOE, has committed to financing and providing technical assistance for GEQIP.

GEQIP Program Components

The GEQIP aims to improve quality at all levels of the system, including inputs, outputs, and processes. The GEQIP will be implemented in two phases, the first of which carries a price tag of over \$400 million. The first phase includes the following five components:

Component 1: Curriculum, Textbooks and Assessment

The main objectives of this component are to: (a) implement a new school curriculum; (b) provide textbooks and teacher guides developed for the new curriculum; and (c) align student assessment and examinations with the new curriculum and reform the inspection system. The component has the following activities:

1. **Curriculum Reform and Implementation:** This activity serves to support reform of the Grade 1-12 curriculum to improve its relevance and quality. This will include the following activities: (i) orientation programs about the new curriculum; (ii) development of a new strategy for teaching science and mathematics; (iii) alignment of the curriculum for the Alternative Basic Education (ABE) with the new revised general education curriculum; and (iv) monitoring and evaluation of the implementation of the new curriculum.
2. **Teaching and Learning Materials:** This activity will acquire and supply teaching and learning materials for all students, Grades 1-12. In the context of available resources and capacity, priority is given to the development and provision of textbooks and teacher guides for Grades 9-12 mathematics, biology, chemistry, and physics which national and international publishers can readily adapt; provision of Grades 9-12 textbooks and teachers guides in the other subjects; and provision of textbooks and

teachers guides for Grades 1-8. Where the required quantities are small, as with books for certain languages of instruction, the resources will be delivered to MOE-designated *woredas*.

3. **Assessment and Examinations:** Under the first phase of GEQIP, this activity will focus on detailed review and analyses to develop strategies for implementation during the second phase. The analytical includes identifying measures to strengthen the capacity of the MOE General Education Quality Assurance and Examination Agency (GEQAEA), including the Inspectorate Department, to ensure that national examinations and assessments are aligned with the newly developed curriculum. The project may support the expansion of the NLA to include Grades 10 and 12.

Component 2: Teacher Development Program (TDP)

Through the implementation of teacher educator, and in-service and pre-service teacher development programs, this component supports the MOE's efforts to increase the supply of effective teacher educators and teachers in primary and secondary schools. The MOE has some implementation experience under the Teacher Development Program (TDP1), which was also financed through a pooled funding arrangement by a consortium of bilateral development partners, similar to GEQIP. TDP1 closed in June 2008. Under GEQIP, the MOE plans to continue to support teacher development activities, including improved targeting of access to primary teaching, enhanced practical teaching experience during teacher training, expanded in-service professional development opportunities and training in ABE.

1. **Pre-Service Teacher Education Quality Improvement:** GEQIP provides support to enhance the pre-service teacher training program for regular and ABE programs. The

teacher training program focuses on six elements: (i) improved selection of entrants to teacher training; (ii) provision of teaching materials in the TEIs; (iii) enhanced practicum for teacher candidates; (iv) in-service pedagogical training for teacher educators; (v) enhanced English language supports in the TEIs; and (vi) provision of a training program for ABE facilitators.

2. **In-Service Teacher Education Quality Improvement:** The in-service teacher training activity includes revision of the following program areas: (i) enhancing the provision of continuing professional development at schools; (ii) providing English language training for teachers of English and teachers using English as a medium of instruction; (iii) developing a teacher career structure and licensing system which recognizes professional development and behavior; and (iv) upgrading primary teachers with a certificate qualification to diploma level. The MOE Department of Education Programs and Teacher Education (EPTED) will take the main responsibility for management and implementation of this subcomponent.

Component 3: School Improvement Program (SIP)

To (i) improve the capacity of schools to prioritize needs and develop a school improvement plan; (ii) enhance school and community participation in resource utilization decisions and resource generation; (iii) improve the government's capacity to deliver specified amounts of schools grants at the *woreda* level; and (iv) improve the learning environment by providing sufficient resources to schools, the MOE is implementing a large school improvement program (SIP). To do this, two distinct activities will be implemented.

1. School Improvement Program: This activity builds on a pilot program that included developing a School Self-Assessment Form (SAF) for schools, through which schools identified problem areas, developed priorities based on identified problems and ultimately developed a SIP to address the prioritized needs. This activity will revise the SAF and SIP templates to ensure that the instruments are appropriate, user-friendly for schools, and result in prioritized operational plans. Capacity building at the *woreda* and school levels will also be delivered through the Management and Administration Program (MAP) described below to ensure that the SAF and SIP processes are properly implemented. An ongoing monitoring process through the School Grants Utilization Survey, to be conducted every two years, will ensure that the instruments and training materials are updated regularly to ensure appropriateness and effectiveness.
2. School Grants: The project will support the implementation efforts at the federal, regional and *woreda* levels, particularly with respect to establishing an effective system to monitor the flow of funds. The MOE has determined that the key issue facing the provision of school grants in Ethiopia is not related to difficulties in disbursement, financial management or accountability. Instead it is the acute constraints on *woreda* budgets which results in a much lower overall level of disbursement across the country than prescribed. The school grants component under GEQIP has been designed to address this constraint through the provision of a minimum amount of funds based on enrollment rates to all schools and ABE Centers. The grant will be used to finance elements of the school improvement plan. To assist with implementation of the school grants sub-component, School Grants Guidelines

have been developed. These Guidelines provide guidance on all aspects of implementation at federal, regional, *woreda* and school/community levels and are cross referenced with the SIP guidelines. The School Grant Guidelines are consistent with government's financing guidelines, but will be implemented as a stand-alone document to ensure that key responsibilities and outputs are conveyed and understood at different levels.

Component 4: Management and Administration Program (MAP)

This component supports the Government's initiatives to strengthen the planning, management, and monitoring capacity of regions and *woredas* to implement system-wide primary and secondary education programs effectively and efficiently. This component has the following objectives: (i) improve the effectiveness and efficiency of education planning, management, resource allocation and utilization through human capacity development; and strengthen the linkages between the *woreda*, regional and federal levels; (ii) design and implement a transparent, low-cost and productive system of management and administration and (iii) strengthen the Education Management Information System (EMIS) including improved collection and use of system data for planning, management, evaluation and policy making. During the first phase of the GEQIP, this component will support capacity development for: (i) education sector planning and management; (ii) school planning and management; and (iii) EMIS at all levels. During the first year, the predominant activity is a detailed analytical and design work (MAP Capacity Development Design Study), followed by a more comprehensive implementation program from the second year.

1. Capacity Development for Education Sector Planning and Management: A key priority for this activity is to build capacity for regional and *woreda* level strategic planning and budget analysis, and to strengthen systems for resource allocation and transfer. Gender budgeting in education has been identified as a particular planning priority. The MAP Capacity Development Design Study will be located under this priority program and upon its completion, recommended activities will be rolled out.
2. Capacity Development for School Planning and Management: The objective of this activity is on strengthening participatory school planning, management and monitoring for the purpose of greater effectiveness, efficiency, and accountability in school performance, and improved teaching and learning. An essential aspect of improving quality will be to improve performance through strengthening planning and management capacity at the school. This activity has two major elements (i) School Improvement Program (SIP) training and (ii) the Leadership and Management Program (LAMP), which was started under TDP1. This subcomponent will be closely coordinated with the School Improvement Program (SIP), including application of the specific planning and assessment tools to be developed under SIP. Additional programs will be developed and implemented from the second year, dependent on findings from the MAP Capacity Development Design Study.
3. Education Management Information Systems (EMIS): This activity will support MOE and regional education bureaus to: (i) strengthen the existing education management information systems; and (ii) build the capacity for policy analysis and planning of the MOE in order to improve education provision. Under the program, the MOE plans to strengthen the existing system through a combination of: (i)

capacity development for policy analysis and planning; and (ii) renewal, renovation, repair and ongoing maintenance of IT infrastructure at the federal, regional and *woreda* levels; and (iii) several enhancement initiatives that will make education information more accessible and relevant.

Component 5: Program Coordination and Monitoring and Evaluation

Finally, effective implementation of the GEQIP will be depend on efficient coordination mechanisms, proper financial management and procurement practices, and the timely implementation and effective monitoring of project outcomes. This component provides the necessary resources for effective coordination and monitoring and evaluation, and the implementation of an information and communications strategy at the national and regional levels. This component has two main activities.

1. Program Coordination: The GEQIP will be implemented at the federal, regional and *woreda* levels, and coordinated by the MOE in close coordination with the regional and *woreda* governments. At the federal level, the Planning and Policy Analysis Department will coordinate the implementation of the GEQIP, reporting directly to the State Minister for General Education, with inputs from relevant departments and institutions. The technical support for the implementation of the program includes a team of short and long-term consultants, specializing in project implementation (including project management, financial management and procurement), resident in MOE, and providing regular support to regions. MOE and MOFED will play a key role with procurement and financial management processes, respectively. At the regional level, it was agreed that each region will have a similar institutional arrangement as the federal level, and the Planning Department will coordinate the

implementation of the GEQIP, reporting directly to the Head of the Regional Bureau of Education. Funds would flow from MOFED to the implementing institutions (i.e., teachers colleges, schools) while keeping the regional governments informed about the transactions.

2. **Monitoring and Evaluation:** This activity will support the establishment of a robust M&E system at the federal, regional and *woreda* levels to monitor and evaluate project outcomes and broader educational trends to provide feedback to improve performance. The MOE will continue to update data to facilitate accurate reporting on the key progress indicators identified in the Results Framework. Most of the data for monitoring project outcomes will come from existing mechanisms such as EMIS, or regular project reports, supplemented by project preparatory studies and a baseline survey undertaken prior to effectiveness. Three surveys are planned as part of the M&E strategy: (i) baseline survey at the beginning of Year 1, (ii) School Grants Utilization Survey at the end of Years 1 and 3; and (iii) exit survey in the middle of Year 3 to assess impact of Phase 1 and to plan for Phase 2. In addition, various policy and evaluation studies will be financed to address key issues (e.g., quality, financing, teacher effectiveness and utilization); annual reviews and impact assessments, in coordination with the program coordination team and under the supervision of the MOE Planning and Policy Analysis Department. The M&E activities will oversee the development and implementation of a gender and equity needs assessment that covers all of the GEQIP components during Year 1.

The GEQIP is intended to be a fully comprehensive program to improve overall educational quality. There is no current literature, however, on the extent or success of

implementation of the project thus far. All other bilateral programs are expected to cooperate with GEQIP toward the overall goal of improving quality of education. What this cooperation looks like in practice is also unclear. But bilateral donors are also responding separately to the quality issue. As noted in previous chapters, as a part of their overall 2011 education strategy, USAID links the achievement of basic cognitive skills in early grade reading as key to quality improvement (USAID, 2011). After the findings of the 2010 EGRA were released, USAID also responded to the quality question.

A new USAID program in Ethiopia is in development and in February 2012, USAID/Ethiopia released a request for applications for a program entitled the “Reading for Ethiopia’s Achievement Developed (READ) Technical Assistance Project”. In response to the declining student achievement on the ENLA, as well as the recent low scores on the 2010 EGRA, USAID developed READ to address the fact that learning outcomes in early grade education have not yet met the GOE’s minimum learning competencies. The minimum learning competencies state that by the end of grade one, students are expected to be “readers” by reading at a “fluent” rate. To both better define and achieve these competencies, USAID will fund a five year project to develop reading and writing curriculum and training materials that focus on eight main local languages (which cover 90% of the population) and English. These materials will target primary classrooms (Grades 1-8) teacher training, and practice of effective methodologies and strategies of language teaching to help students learn to read and write. The project will also:

1. Provide technical expertise, guidance, coordination, and capacity building that is needed for the Colleges of Teacher Education (CTEs), universities, Regional State

- Education Bureaus (RSEBs), and the MOE to develop a reading faculty at the public CTEs and improve the pre- and in-service teacher training and capacity at the CTEs related to language-specific, evidence based, quality reading and writing instruction;
2. Identify gaps and find means of availing a model level of language technology support and teaching aids in the School Cluster Centers (SCCs – resource centers at larger schools to support their satellite schools) and CTEs; and
 3. Provide technical advice to USAID and implementing partner(s), *woreda* education offices (WEOs), and RSEBs on how they can develop and roll-out community-based campaigns and co-curricular activities on reading and writing.

Measuring Quality

As illustrated above, the scopes of GEQIP and READ are quite ambitious. They include activities at all levels of the education system, including inputs, outputs, context, and processes. The M&E system of GEQIP relies on the Government's M&E system, which provides key system performance data on a regular basis through its EMIS.

Baseline data for program outcomes on student achievement are drawn from the grades four and eight NLAs. Baseline data for other key performance indicators (e.g., percentage of teachers with qualifications) are drawn from the EMIS data. READ will measure its impact on quality improvement by collecting follow-up EGRA data, project-level indicators, and external evaluations.

But there exist significant challenges in the collection and analysis of reliable and valid data on project outcomes. Particularly for nationwide programs such as GEQIP and READ, Ethiopia's highly decentralized education system makes tracking project effects on its intended beneficiaries problematic. In Ethiopia, the management and financing of

primary and secondary education is the responsibility of regions and *woredas* based on the national policy and standards developed and approved by the MOE. However, some regional and *woreda* governments have weak capacity to gather and report on key performance indicators on time in order to manage and monitor effectively the impact of education reforms. Further, the reliability and validity of the NLAs are also in question, based on violations of basic psychometric principles of standardized assessments (A. Ferdous, personal communication, September 9, 2011). Though well-intentioned, policy decisions that are based on the NLA may not be most appropriate.

UNESCO's Institute for Statistics (2004) conducted a diagnostic study on the capacity of the Ethiopian government at all levels to collect and analyze reliable and valid data on the education system. The key issues related to policy making, management and monitoring capacity include: (i) weak institutional capacity for the delivery of general education; (ii) inadequate strategic planning and management capacity to support policy development tasks; and (iii) limited monitoring and evaluation systems which make the education reform process difficult to operationalize. UNESCO also notes that the constant turnover of staff (including insufficient number of qualified staff) compound the capacity gaps. But without the capacity for rigorous monitoring and evaluation, it is an almost impossible task to reach reliable and justifiable conclusions about educational quality improvement. The MOE has also identified its own problems:

Inadequate planning and management capacity at the lower levels of the organizational structures (e.g. *woredas*), is a critical problem in realizing the goals of education especially with regard to primary education. Skills to interpret policies, collect and analyze appropriate data, and enabling schools to take

appropriate action to meet the minimum quality standards defined for the local situation are critically lacking at the lower levels of the organizational structures (MOE, 2002, p. 10).

As part of the GEQIP program, capacity building for monitoring and evaluation is built in. It is unclear whether READ will include explicit capacity building, although EGRAs are undertaken in conjunction with the MOE. The monitoring and evaluation of programmatic implementation is also a challenge. While USAID explicitly builds in rigorous implementation monitoring and evaluation requirements into its projects, it is unclear the extent to which GEQIP has included this. This is a serious concern given the size, scope, and price of GEQIP.

Furthermore, the type of indicators that the projects are tracking is problematic.

The table below gives intermediate outcome indicators for the GEQIP:

Table 3 - GEQIP Outcome Indicators

Component Breakdown	Intermediate Outcomes	Intermediate Outcome Indicators
<i>Component One: Curriculum, Textbooks, and Assessment</i>		
1.1 Curriculum Reform and Implementation	Increased use of revised general education curriculum	% of schools and ABE centers with one set of syllabi in core subjective for all grade levels
1.2 Textbooks and Teacher Guides	Improved availability of new textbooks & teacher guides in core subjects	Number (#) of textbooks and teacher guides in core subjects distributed
<i>Component Two: Teacher Development Program</i>		
2.1 Pre-Service Teacher Education Quality Improvement	Increased supply of qualified regular teachers	# intake into CTEs for diploma pre-service training # intake into TEIs for degree pre-service training
2.2 In-Service Teacher Education Quality Improvement	Increase supply of qualified ABE facilitators Improved supply of qualified teacher educators	# of ABE facilitators qualified in Afar and Somali # of teacher educators

	<p>Improved qualifications of teachers through upgrading program</p> <p>Improved in-service teacher training through CPD</p> <p>Improved teachers qualification</p> <p>Improved supply of qualified English teachers</p>	<p>qualified annually (HDP)</p> <p># of teacher upgraded from certificate to diploma</p> <p># of teachers provided CPD training</p> <p># of teachers upgraded from certificate to diploma</p> <p>ELQIP: English Language Teaching for Grades 1-12</p> <p># of teachers trained (ELTIP training intake)</p> <p># of teachers trained as mentors</p>
<i>Component Three: School Improvement Program</i>		
3.1 School Improvement Program (SIP)	Improved School Planning	% of primary and secondary schools and ABE Centers with completed school improvement plans approved by PTAs/School Boards/School Improvement Committees
3.2 School Grants	Improved utilization of school grants	% of schools and ABE Centers using School Grants to address priority areas identified in SIP
<i>Component Four: Management and Administration Program (MAP)</i>		
4.1 CB for Education Sector Management and Planning	Improved School management and planning at all levels	MOE produce ESDP IV
4.2 CV for School Planning and Management		% of schools received revised SIP instrument training
4.3 Education Management Information Systems		Intake into secondary school principals LAMP advanced diploma program
<i>Component Five: Program Coordination and M&E</i>		
5.1 Project Coordination and Monitoring and Evaluation	Improved project management, coordination and monitoring and evaluation systems operationalized at federal	% of woredas and regions report on physical financial, and performance progress data on a quarterly basis

	level Improved understanding of how GEQIP can address gender and equity issues	Annual production by MOE and MOFED of consolidated sector report, including GEQIP Gender and equity needs assessment across all components
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Source: MOE, 2007

The outcome indicators for READ include:

- Number of grade 1-4 student with improved scores on reading and writing assessments (in medium of instruction);
- Percentage of students in grades 2 and 3 who are proficient in reading (in medium of instruction);
- Percentage of children in grades 2 and 3 who have proficiency in reading comprehension;
- Mean scores of standardized learning achievement test in grade 4 and grade 8;
- Student achievement in English language learning in grades 2, 4, 6, and 8; and
- Proportion of students reading English with fluency and comprehension after two years of English language instruction.

The MOE's fourth Education Sector Development Plan (2011) also lays out its indicators of quality improvement. They are:

- % of primary school teachers with diploma qualification
- % of secondary school teachers with degree qualification

- Primary school student-textbook ratio
- Secondary school student-textbook ratio
- Primary education student teacher ratio
- Secondary education student teacher ratio
- Primary education student-section ratio
- Secondary education student-section ratio
- Students scoring at least 50% and 75% in Core Subjects in NLA
- Primary completion rates

For GEQIP and the ESDP IV, the indicators demonstrate the continued dependence on data collection of inputs- and output/outcome-based indicators. The problem with this approach is that the GEQIP projects focus on the quality of the education system at all levels – input, outcome, and process. For GEQIP, the indicators for measuring the improvements in quality focus on the inputs (how many teachers trained, number of schools receiving grants, and so on) and outcomes (student achievement data for baseline comparison). The ESDP IV relies on the assumption that inputs (textbooks), pupil ratios, and teacher preparation result in both completion and achievement on NLAs. READ’s indicators address how well students scored on assessments of reading and writing in language of instruction and English.⁷

This leaves us with questions about the process: What indicators measure how well the teachers are utilizing knowledge gained from training? What indicators measure how the school grants are used to improved instruction? What indicators measure how language and ethnicity play a role in the classroom? What indicators track what is

⁷ This reflects USAID’s shift to focusing more carefully on output, outcome, and impact indicators, rather than input.

happening between the teacher and the pupil? Moreover, how do the Ethiopians themselves conceptualize the quality of education and what it means to be literate? And how is this reflected in policies like GEQIP, ESDP IV, and READ? And what indicators explore the other contextual factors that lead to the students' score and how do they relate to each other? Such factors would include process oriented factors like teacher and student interaction, the school culture, home life, community participation in the goals of the school, and so on. These are crucial questions that relate to the nature of this study. The very projects that are intended to develop the educational quality and early grade reading skills in Ethiopia are measured by indicators that limit the understanding of what it means to have a quality education and a literate population.

Conclusion

Quality is a central goal of new educational reforms in Ethiopia. Beyond the easily measurable indicators present in GEQIP and USAID-funded projects, what factors constitute and are associated with a quality education and literacy for Ethiopians is a critical, yet largely unexamined topic. The importance of finding a better way to evaluate this is now more important than ever. The Ethiopian MOE, in coordination with its development partners, has begun massive efforts toward improving the quality of education: the GEQIP and the READ. Further research is required understand better what it means to improve quality of education in the Ethiopian context, in particular what it means to create an environment in which literacy is a meaningful practice.

Chapter 4: Research Methodology

Introduction

This chapter reintroduces the research questions that I ask and answer through this study. This chapter also establishes my theoretical framework as it relates to my research, presents the methodological approach, and summarizes my data collection and analysis plan. Finally, I discuss how I maintained the quality of the data and considered the ethical implications of the study.

Restatement of Research Questions

My first research question was: According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related? The EGRA dataset contains a rich selection of contextual variables relevant to modeling the relationship between environmental context, family, school environment, and student to literacy practice. To further unpack these variables, I explored my next research question from a different, qualitative perspective: According to qualitative data, how do parents' and teachers' perspectives explain and substantiate the contextual factors identified in the EGRA dataset and do other factors emerge? I asked this research question to better understand the relationships between environmental context, family, school environment, and student and to further determine what variables might be missing from the EGRA dataset. In follow-up to the answers to my first two research questions, I asked a third question: Given the answers to the first two research questions, what are the factors associated with achievement that are most favorable and most challenging for literacy development? This question delves into parents', teachers', administrators', and policy makers' opinions on

how the associated factors present opportunities and challenges for developing literacy in Ethiopia. My final research question took the answer to the third one step further by investigating how literacy development fits into the overall understanding of educational quality in Ethiopia: Given the answer to the third research question, how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?

This study is motivated by my previous work experiences in Ethiopia as an employee of a non-governmental organization receiving foreign aid funding in education. I noted several contradictions in Ethiopia that led me to selecting it for this dissertation: Ethiopia's continually poor performance on standardized exams as compared with other similar sub-Saharan African countries; the growing disparity between increased access and quality in primary schools; and the immense amount of foreign aid continually flowing into a country with a highly centralized, autocratic government. Experience and anecdotal evidence made apparent to me that the issues of educational access, quality, and their "quick-fixes" needed to be further explored.

Conceptual Framework

As elaborated in chapter 2, this study is grounded in the frameworks of New Literacy Studies (NLS) and cultural historical activity theory (CHAT). These frameworks view literacy as a social practice that cannot be reduced down to a set of neutral or technical skills as it has been traditionally perceived and is reemerging in the latest discourse on quality of education. Through this study, I explore children's literacy experiences in out-of-school and in-school environments and investigate literacy as a practice that is embedded within social and cultural contexts.

To do this, I departed from NLS' widely utilized ethnographic approach, and employed a mixed-methods design to attain a broader, more holistic understanding of literacy in Ethiopia that analyzes empirical quantitative and qualitative data using both linear and nonlinear techniques. I argue that this approach is actually aligned with NLS' spirit of exploring phenomena from a variety of perspectives and sources of information. Many quantitative studies that utilize linear techniques like regression analysis are able to highlight interesting relationships between variables, but they are limited in exploring how these variables are experienced and practiced in everyday life. As such, based on the results of my analysis of the EGRA dataset, I collected qualitative data from each category of predictor variables (in-school and out-of-school) to explore further how those variables are *experienced* as literacy activities. Just as a more holistic viewpoint of both the practice of literacy itself and the relationship between literacy and educational quality is required to compensate for the current reductionist approach to both concepts, a more holistic mixed-methods research design is also necessary to fully explore these relationships.

Methods

Advocates for the paradigms of qualitative and quantitative research have for years engaged in dispute. Quantitative purists have aligned themselves with a positivist philosophy based on a Cartesian-Newtonian-Baconian-Modernist epistemology that developed over the course of the seventeenth and eighteenth centuries and placed truth in an external reality that the individual must attempt to measure and observe (Kincheloe, 2008). Quantitative data are usually in the form of numbers to represent the world around us. Such quantitative inquiry must remain objective to the furthest extent possible and

time- and context-free generalizations are desirable and possible by controlling the environment to ensure reliability and validity of data. The emphasis is on the reduction, if not elimination, of biases and a detachment from research subjects (Johnson & Onwuegbuzie, 2004).

Qualitative purists, mainly emerging from constructivist and interpretivist philosophies, reject the positivism of quantitative purists. They contend that multiple-constructed realities exist and the time- and context-free generalizations do not.

Qualitative data are usually in the form of words to represent the world around us.

Research is value-bound and that it is impossible to fully differentiate between cause and effect. The knower cannot be separated from the known, as the dialectic relationship between the two constructs reality. The subjective viewer is indeed the only source of reality (Guba, 1990).

These two purist approaches often fall into traps unwittingly set by their own methodologies. Some qualitative purists openly admit they find themselves in an unqualified realm of relativism that is logically self-refuting. Some quantitative purists, in their efforts for objectivity, are ignorant of the fact that they make subjective and biased decisions regarding their research, whether in selection of the sample or choosing a model to fit the data. While these paradigms may at the surface seem incompatible, the goal of a third paradigm, a mixed-methods approach, seeks to merge the two by capitalizing on their individual strengths and minimizing their individual weaknesses.

Johnson and Onwuegbuzie (2004) posit that most quantitative and qualitative researchers have come to agreement on the following points: (1) the relativity of the “light of reason”, i.e. what appears reasonable can vary from person to person; (2) theory-

laden perception of the theory-ladenness of facts, i.e. what we notice and observe is affected by our background knowledge, theories, and experiences and observation is not a “window” into reality; (3) underdetermination of theory by evidence, i.e. it is possible for more than one theory to fit a single set of empirical data; (4) the Duhem-Quine thesis of auxiliary assumptions, i.e. a hypothesis cannot be fully tested in isolation because to make the test we must also make various assumptions and the hypothesis is embedded in a holistic network of beliefs; (5) the problem of induction, i.e. the recognition that we only obtain probabilistic evidence; (6) the social nature of the research enterprise, i.e. researchers are embedded in communities that influence their attitudes and beliefs; and finally (7) the value-ladenness of inquiry, i.e. that humans can never be values-free (p. 16). Thus, the epistemological perspectives of quantitative and qualitative researchers can be wed through mixed-methods approaches to answer challenging, complex questions through a combination of words and numbers (Yoshikawa et al, 2008).

This study utilized one of the most popular mixed-methods designs: the sequential explanatory mixed methods design, which contains two distinct phases (Creswell et al., 2003). Phase I includes the analysis of the quantitative EGRA data which provides a general picture of the research problem. Phase II includes the collection and analysis of qualitative data which refines and explains the statistical results. The results of both phases are incorporated in a discussion of the findings of the study as a whole in chapters five through seven of this study. Figure 5 below provides a visual representation of the sequential explanatory mixed-methods design of this study.

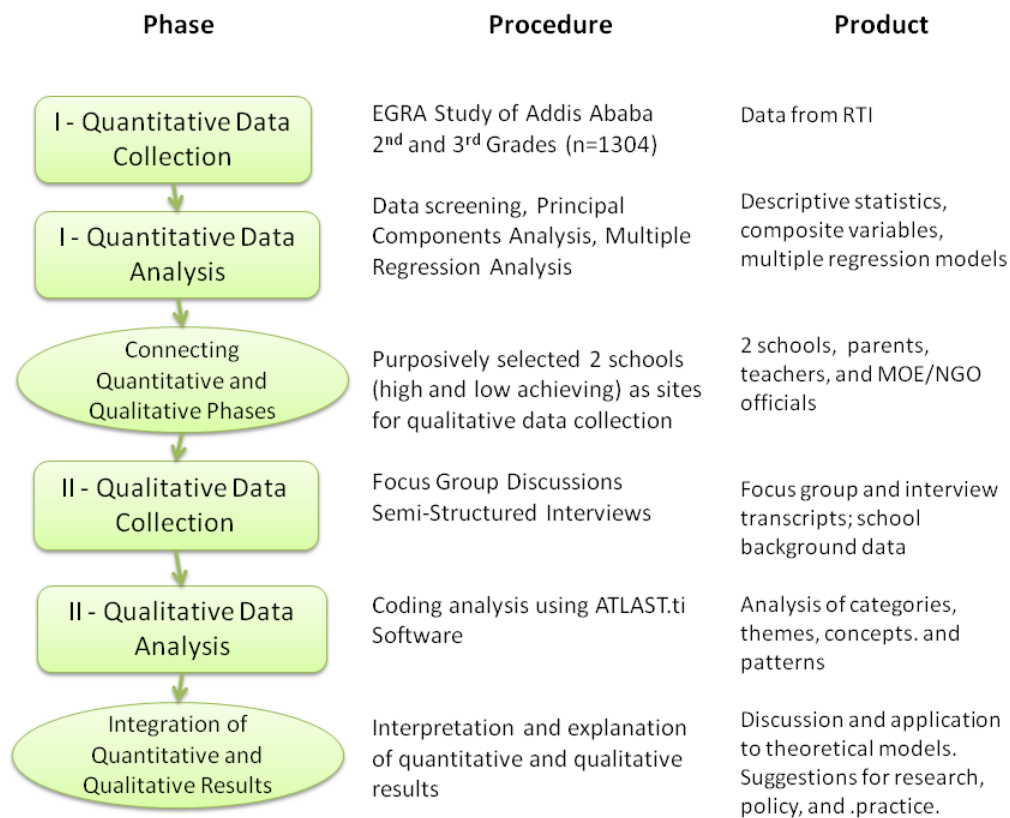


Figure 5 - Visual Representation of the Sequential Explanatory Mixed-Methods Design

Data Collection

Quantitative Data

Since this study builds upon the analysis of quantitative data in the first phase, to answer the first research question (According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors are associated with achievement in basic literacy skills and how are they related?) I utilize existing data from the 2010 mother tongue EGRA dataset. In September 2011, I began the process of applying for access to this dataset which required multiple conversations with

representatives of RTI International⁸ and Ethiopian MOE officials. In October 2011, they agreed to grant me access to the dataset⁹ and in January 2012, I received the fully edited and cleaned version of the EGRA dataset from RTI. The data were collected from 338 sample schools in seven of Ethiopia's nine ethnically-based administrative regions. In total, 13,079 students were assessed by data collectors trained by RTI and the MOE. A panel of assessment design experts from RTI and the MOE decided that Tigray, Amhara, Oromiya, Somali, Benishangul-Gumuz, SNNPR (Sidama zone), Harari, and Addis Ababa would be sampled because these regions cover over 96% of Ethiopia's population and include a significant amount of linguistic and cultural diversity.

The EGRA data were initially collected and analyzed for dual purposes: to provide an assessment of reading levels for a significant portion of the Ethiopian population within the context of the GEQIP and the rapidly changing primary school environment, and also to provide a baseline for quality improvement programs in Ethiopia. Thus, a large geographic and regional spread was necessary. Dr. Benjamin Piper, the lead researcher from RTI notes that the assessment was developed for 6 languages in Ethiopia, such that Grade 2 and Grade 3 students were assessed in Tigrinya, Afan Oromo, Amharic, Somali, Sidaamu Afoo, and Hararigna (Piper, 2010).

Due to the mixed-methods design of this study, I restricted my analysis to the Addis Ababa data, since this is the region in which I was able to collect follow-up qualitative data from schools. According to the 2007 census, Addis Ababa houses 3,384,569 people, although unofficial estimates are higher. Nearly all of Ethiopia's ethnic

⁸ RTI International was the USAID contractor responsible for collection and initial analysis of the dataset.

⁹ There was a significant risk that I would not receive access to the dataset, as there are serious political sensitivities within the MOE regarding the poor performance of students on the EGRA.

groups are represented in the city and its outskirts, but the largest groups are the Amhara, Oromo, Gurage, Tigray, Silt'e, and Gamo each of which has its own language. Amharic is most widely spoken, but Afan Oromo (especially on the outskirts of the city as Addis Ababa is nestled within the larger Oromiya region), Gurage, Tigrinya, Silt'e, and Gamo are also widely spoken. The EGRA Addis Ababa subset contains a sample of 1,304 students from thirty-three primary schools in the city and its outskirts.

The EGRA assessments included a variety of subtasks which generated dependent variables, or student scores, on the following components: letter (or fidel) sound fluency, phonemic awareness, word naming fluency, unfamiliar word naming fluency, oral reading fluency, reading comprehension, and listening comprehension. In addition to these student literacy subtask assessments, a family background questionnaire was administered to students, as well as head teacher and teacher questionnaires at the school level. These questionnaires gathered data on student background, the classroom environment, and community factors. Chapter five includes specific details on variable selection and measures.

Qualitative Data

As previously noted, I collected qualitative data to answer the complementary second, third, and fourth research questions. Based on my initial analysis of the school-level quantitative EGRA data, I purposively sampled two out of thirty-three total schools in the Addis Ababa region. These schools were selected based on their performance on the two key measures in the EGRA: one school performed well on both reading comprehension and oral reading fluency and the other school performed poorly. The willingness of school directors, teachers, and parents to participate in the data collection was also a key

factor in school selection. The willing participation of schools was geographically linked. Many schools located in central Addis Ababa suffered from “research fatigue”, or the frequent in-and-out presence of outside researchers who arrive in Addis Ababa and visit the closest and most convenient schools to the central locations of the capital city. As a result, I selected schools that were located on the outskirts of Addis Ababa that represented both low (Fitawrari Abayneh Metekia Primary School) and high (Fitawrari Habte Giorgis Primary School) mean scores on the reading comprehension and oral reading fluency measures on the EGRA. While these schools characterized both the higher and lower achieving schools in Addis Ababa, the student scores within each school still represented a large amount of variation. Chapter six contains detailed descriptive information on each school that highlights the contextual peculiarities of the sites.

At these schools, I collected data through several techniques including semi-structured interviews and focus groups with teachers and parents. Collecting data from a variety of sources and methods was for the purpose of triangulation to ensure that I gain a “broader and more secure understanding of the issues [I am] investigating” (Maxwell, 2005, p. 94). While at the schools, I collected data on contextual factors that relate to the development of literacy and educational quality. My interview and focus group discussion protocol are summarized by the following topics: (1) what the indicators of a quality education are; (2) how early grade reading skills are related (or not) to educational quality; (3) the key challenges at their school facing early grade reading skills development; (4) the reading ability of children at the school; (5) the level of parental

involvement and attitudes at the school; (6) gender differences; and (7) the level of teacher qualifications at the school. The protocols can be found in Appendices B - E.

After completing the initial data collection at the selected schools, I also had informal discussions with national level MOE officials and various education practitioners employed by local and international non-governmental organizations working in Ethiopia. Our conversations focused on: (1) how they viewed the concepts of literacy and quality; (2) what contextual factors affect literacy and quality; (3) what the relationship between literacy and quality is; and (4) how foreign aid and Ethiopian MOE policy should be improved to respond to the challenges of literacy and quality development. These qualitative data helped me to unpack the practice of literacy in Ethiopia from the perspective of the policy planners and the implementers, as well as how literacy relates to overall educational quality.

When I arrived in Addis Ababa, I first re-established my affiliation with the College of Education at Addis Ababa University to recruit a research assistant and to pilot test my data collection protocols for cultural appropriateness and comprehension. The research assistant, a graduate student at Addis Ababa University, was well-suited to assist me in data collection. She is fluent in English and Amharic and has training in both qualitative and quantitative data collection and analysis methods. Additionally, before returning to graduate school, she was a teacher and a school director in two different primary schools in Addis Ababa. As a result, she is well versed in the educational environment of Ethiopia. As part of her paid responsibilities, she assisted me in all school visits, conducted the interviews and focus groups discussions in Amharic, provided transcripts in English, and debriefed with me after each data collection session.

Focus Groups

One of the key data collection methods I used is focus group discussions. Focus groups are guided discussions designed for small groups through which I learned about conscious, semiconscious, and unconscious psychological and sociocultural characteristics (Berg, 2007). I used focus groups to elicit information from parents and teachers that was useful in understanding how their group norms and attitudes conceptualize literacy and educational quality. Understanding these instances of group behaviors helped me better recognize how individual factors function in relationship to one another and how they are interpreted by parents and teachers. Each focus group discussion lasted an average of 45 – 60 minutes, for a total of four focus group discussions with teachers and parents at each school.

Semi-structured Interviews

I also conducted semi-structured interviews with the explicit purpose of collecting rich data on the individual experiences and perspectives of the key stakeholders, as well as to explore alternate explanations of what I was able to understand from focus groups (Glesne, 1999). Maxwell (2005) notes that semi-structured interviews allow for comparability across participants while also allowing each interview to take its own course depending upon the individual. Furthermore, interviews also helped me to better understand the “why”. Why did the teacher use that pedagogical technique? Why do parents feel that way? I searched for perceptions, attitudes, and opinions that helped me better understand how various factors interact with each other in relationship to the literacy practice and educational quality. Each interview lasted between thirty and sixty

minutes for a total of fifteen interviews. My protocols were grouped according to the units that I utilized for qualitative data analysis, discussed below.

Before each focus group and interview, I ensured participant consent and audio recorded each session, which were then transcribed and translated into English, as necessary. Table 4 below demonstrates the type and source of data, the timing of collection, the process of analysis, and the related research questions.

Table 4 - Data Table

Research Questions	Type/Source of Data	Process of Analysis	Timing of collection
RQ1: According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related?	Quantitative achievement data collected from students; and questionnaire data collected from parents and head teachers	Principal Components and Regression Analysis using Stata 12.1	Data are extant; Analyses occurred February – July 2012
RQ2: According to qualitative data, how do parents’ and teachers’ perspectives explain and substantiate the contextual factors identified in the EGRA dataset and do other factors emerge?	Qualitative data collected from interviews, focus group discussions, and classroom observations with teachers and parents	Content analysis using ATLAS.ti	April - May 2012
RQ3: Given the answers to RQ1 and RQ2, what are the factors associated with achievement that are most favorable and most challenging for literacy	Quantitative EGRA data and qualitative data collected from interviews with MOE officials, NGO stakeholders, teachers, and parents	Content analysis using ATLAS.ti	July – August 2012

development?			
RQ4: Given the answer to RQ3, how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?	Quantitative EGRA data and qualitative data collected from interviews with MOE officials, NGO stakeholders, teachers, and parents	Content analysis	July – August 2012

Data Analysis

Quantitative Data

To analyze the quantitative data, I used several statistical techniques including principal components analysis and multiple regression analysis. Per RTI’s 2010 Analytic Report on the EGRA dataset, initial bivariate regression analysis was conducted to determine the significance of various individual contextual factors as they are associated with EGRA scores by region. The analysis is limited however, as it isolates variables and does not explore how they are related. My analysis builds upon RTI’s.

I first analyzed the Addis Ababa regional data by exploring the bivariate correlations within and between predictor variable groupings (student background, socioeconomic status, school infrastructure, school/family involvement, family background, teacher characteristics, and teacher materials). As several of the variables were correlated, I conducted principal components analysis to summarize correlated variables by grouping them into factors and to reduce large amounts of data (Metler and Vannatta, 2010).

Beginning where RTI's bivariate regression analysis left off, I then fitted several different multiple regression models to the data to explore how the combination of multiple relevant variables predict the dependent variables of oral reading fluency and reading comprehension. RTI's analysis also only utilizes oral reading fluency as the dependent variable, so my use of both oral reading fluency and reading comprehension as dependent variables explores more fully the relationships between relevant predictor variables and multiple, more holistic measures of literacy. Chapter five includes specific details on variable selection and measures.

Qualitative Data

During the analysis of the qualitative data, I kept in mind Creswell's description that the steps of collecting, analyzing, and reporting on qualitative data are not distinct. These steps can happen simultaneously and are certainly interrelated (Cresswell, 2007). During each session, I took brief notes on anything of particular interest that I reflected on during data analysis, such as non-verbal communication and shifts in attitude or emotion. Following each focus group discussion and interview, I used my notes to develop a summary memo of reflections and observations. Once I received the translated transcripts, I organized them into files along with my memos and began the process of reviewing the content using ATLAS.ti qualitative data analysis software.

Marshall and Rossman (1999) refer to six phases of analytic procedures, which guide the research process: Organizing the data; looking for categories, themes, or patterns; coding the data; naming emergent understandings; identifying alternative explanations; and, writing the results (p. 152). Berg (2007) notes that the elements that are most relevant to identify in the coding process include themes (strings of words),

characters (people), concepts (words grouped in conceptual clusters or ideas), and semantics (the strength and sentiment of words). As the variables in the EGRA dataset represent data on students', teachers', and directors' individual backgrounds (out-of-school) and experiences within the school (in-school), natural groupings of variables emerged. Thus the analysis of qualitative data consisted of a coding process of sifting through the text within the transcripts and identifying the appropriate analytical categories.

Throughout the analysis, general patterns and themes emerged that supported the grouping of the EGRA data. These themes were repeated throughout my data, allowing me to feel confident that my data had reached saturation. Due to the sequential explanatory nature of this mixed-methods study, I paid close attention to the findings of my EGRA data, as well as the literature and my guiding conceptual frameworks to develop a set of coding protocol. Table 5 below presents the coding protocol that I used to analyze the qualitative data.

Table 5 - Coding Protocol

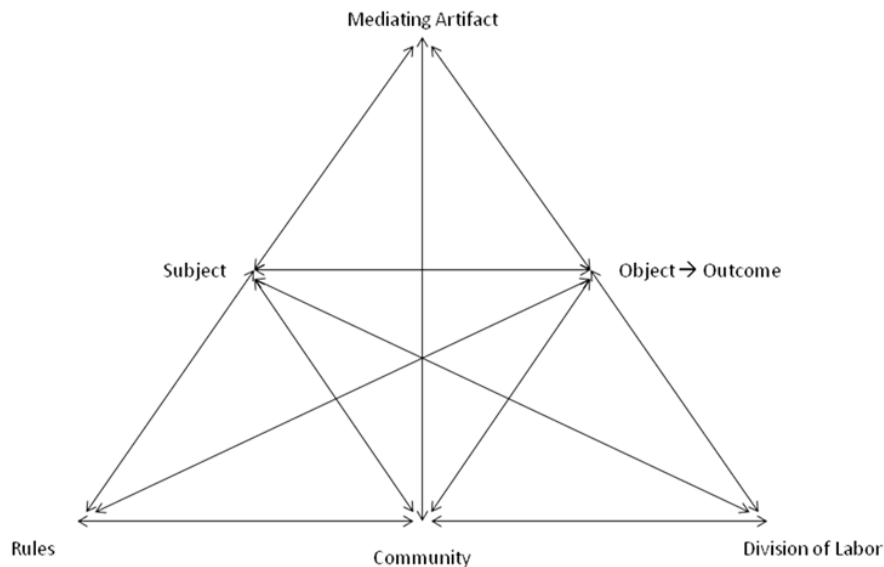
Out of School Factors	In School Factors
<i>Student Background Characteristics</i>	<i>School Context</i>
- Language	- Quality
- Gender	- Literacy
<i>Socioeconomic Status</i>	<i>School Infrastructure</i>
- Poverty	
<i>Family Support</i>	<i>School Material Resources</i>
- Parents' capacity/interest	- Textbooks
- Siblings' help	<i>School Human Resources</i>
- Living with family members	- Tutorial assistance
- Household responsibilities	- Skills in teaching reading
- Lack of interest	<i>School and Parental Involvement</i>

Upon completion of the analysis, I conducted a full interpretation of the data to discover how parents' and teachers' perspectives explain and substantiate the contextual

factors identified in the EGRA dataset that affect achievement of basic literacy skills, what are most challenging and hopeful about these factors, and the relationships between literacy skills and quality. The full interpretation of the qualitative data is included as chapter 6 of this study and explored in conjunction with the findings from the quantitative data analysis in chapter 7.

My qualitative analysis was guided by CHAT as a framework to interpret the qualitative data I collected. CHAT is designed to investigate issues related to complex learning environments by using human activity as the unit of analysis. The activity is situated within a collective context and is graphically represented by a series of triangle diagrams (Figure 6, below). Yamagata-Lynch (2010) asserts that CHAT can guide researchers to design, implement, analyze, and develop conclusions in a research study that is intended to understand human activities and interactions in real-world complex environments. As this study is grounded in critical approaches (NLS and sociocultural historical theory) that reject autonomous approaches to literacy and emphasize the importance of the interactions of various contextual factors and dimensions of the

practice of literacy, CHAT was a suitable framework to understand my qualitative data.



Adapted from: Engeström (1987)

Figure 6 - Human Activity System

This approach is reminiscent of a debate in the late 1990's in the *Journal of Literacy Research* between James Paul Gee and Catherine Snow. Gee, in a critical review of Snow et al.'s 1998 National Research Council Report *Preventing Reading Difficulties in Young Children*, remarked that the social dimensions of reading were largely ignored in the report and the role of poverty as a contributing factor to literacy difficulties was barely addressed. Gee argued that the report conceptualized reading as a process that occurs solely in the head of the individual through an overemphasis on the cognitive subtasks associated with reading. Snow's response defended the emphasis on cognitive subtasks on the grounds that difficulties with these tasks could be easily addressed through changes in instructional practice. She further argued that Gee's work in the New Literacy Studies approach was not grounded on empirical evidence and as such his

arguments were unfounded and based on moral and philosophical reasoning alone. Gee's response deserves full quotation:

...the New Literacy Studies is interested not primarily, as is Professor Snow, in 'how cognitive changes within individuals affect their nature of participation,' but in how changes in the nature of participation affect cognition, socially situated identities, and the assessments made about individuals, a basically Vygotskian perspective taken in a sociocultural and sociopolitical direction (2000, p. 126).

Cummins (in Pahl & Rowsell, 2005) argues that the crux of this debate is the question of what is "empirical". Snow implies that New Literacy Studies will not be credible until they utilize empirical research, meaning experimental (or quasi) or utilize data with which appropriate statistical controls can be applied. Cummins argues that, despite Snow's conceptualization of what empirical research is, New Literacy Studies have generated ample empirical data to support claims that literacy is comprised of social practices. Cummins says,

Empirical support for Gee's claim (which is within the mainstream of Vygotskian theory) requires only that researchers demonstrate that changes in students' opportunities for social participation in literacy practices *can* result in different and improved modes of literacy performance. One case study is sufficient to demonstrate this relationship. Demonstration that 'X' *has* occurred automatically proves that 'X' *can* occur (qtd. in Pahl & Rowsell, 2005, p. 146).

However, while NLS researchers can argue with traditionalists/positivists like Snow that they do indeed perform empirical research, Cummins argues that fundamentalist approaches are not limited to traditionalists. NLS theorists also need to be wary of either-

or approaches that dismiss the value of Snow's research altogether, e.g. learning more about what is happening inside learners' heads through cognitive subtasks. The either-or approach perpetuates the positivist/interpretive - quantitative/qualitative paradigm clash and limits the understanding of both camps. Thus, utilizing both EGRA data and qualitative data will help me to avoid these pitfalls.

Data Quality

For the Ethiopia EGRA dataset, multiple steps were taken to ensure overall data quality. EGRA assessors were trained during a two week training session held from 19-23 April, 2010 and 10-14 May, 2010. Each assessor was given four inter-rater reliability tests and the lowest scoring assessors were not allowed to be included in the pilot training or the full data collection.

Final inter-rater reliability scores were higher than 94% for the entire group of assessors, which is high, but similar to what was found in Kenya and Uganda for EGRA studies there. In order to test the reliability and validity of the various subtasks in the 6 languages, RTI conducted a full pilot test of the instruments in Amhara and Oromiya regions from April 26 - 29, 2010, and in Tigray, SNNP, and Somali regions from May 17 - 20, 2010. Assessing students in several chosen schools in each region, pilot findings were analyzed from different language groups. In total, 77 children were assessed in Sidamigna language, 78 in Tigrigna language, 90 in Somali language, 90 in Amharic language, and 105 in Afaan Oromo language. The pilot data were entered the same day they were collected using an RTI-developed Excel-based data-entry system. These data were cleaned for any entry mistakes, coded immediately, and sent to an RTI psychometrician for analysis and data quality checks.

Findings from the pilot psychometric Rasch analysis that had implications for portions of each language assessment were adapted appropriately. Many of the changes were related to particular items that were more or less discriminating than they should have been, and the response was to confer with language experts and assessors to determine how best to improve the items. Changes were made to improve each of the instruments before the full data collection and were included in the updated assessment versions. In nearly all cases, the changes necessitated by the pilot results were cosmetic; yet the exercise was important to determine items that were inappropriate.

For the qualitative data, I took several steps to ensure its validity and overall quality. Maxwell (2005) defines validity in qualitative research as “the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account” (106). First, I was engaged in my research for a prolonged period of time in the Ethiopia. Prolonged engagement, defined by Creswell (2007) as “working with people day in and day out, for long periods of time,” enhances the credibility of my findings by reducing the likelihood that I make spurious generalizations or formulating premature theories (p. 208). This prolonged engagement also leads to another way to ensure data validity: member checks. Since I was able to maintain continued engagement with MOE officials and NGO stakeholders, and the schools from which I collected data, I was able to share with them my preliminary conclusions and obtain their feedback. Additionally, as I collected and analyzed the data, I was able to follow up with the participants and with my research assistant to clarify any confusion or to seek additional information.

Finally, as I noted earlier, I utilized triangulation as a method to ensure the validity of my data. I collected data from multiple participants and used multiple modes

of collection. During this process, I knew that I had collected sufficient qualitative data from enough sources when the data became ‘saturated’ and pointed to the same emerging themes and units within the analysis.

Limitations

The use of multiple regression analysis is itself a limitation in my research. While it is the most appropriate statistical method to investigate how the independent contextual variables and dependent achievement variables within the EGRA dataset are related, multiple regression analysis is limited in nature by its model specifications, namely that: (a) all relevant variables must be included in the model, (b) all variables must be measured with minimum error and adequate reliability, and (c) the functional form must be correct, namely that is the relationship between the independent and dependent variables is linear. In education research, particularly with such a complex issue as literacy, there are a multitude of factors that affect a given outcome of interest. Not only is it difficult to identify them all, but many of them are not easily quantifiable, and the relationship among them is often nonlinear. Such model misspecification is a problematic, yet unavoidable reality of regression analysis. And while the EGRA data were validated as indeed measuring the subtasks that it set out to measure, we are still fundamentally limited by the conceptualization of these subtasks as an accurate measure of the construct of “literacy”. There is also no discussion in the EGRA Analytic Report on how decisions were made and the associated limitations of those decisions on how to define and measure the independent contextual variables. The conclusion is that at minimum, one should approach any conclusions based on such analyses with skepticism, and at the extreme, we may ultimately be limited to studies of correlation between

variables (Klees, 2008). These conclusions are discussed in depth in chapters five and seven.

Similarly, the complex nature of human interaction questions the use of ‘scientific’ research in that the procedure of fitting the model to the available data is problematic, thus making linear analysis dysfunctional. McMurty (2006) notes that complex systems:

... emerge through the dynamic, non-linear interaction of their own component parts. Since they arise in this manner, rather than from the imposition of ‘top-down’ instructions, their form of organization is often described as being decentralized, or ‘bottom-up’ in nature. A crucial consequence of complex systems’ ‘bottom-up’ self-organization is that they cannot be externally determined or explained in terms of straightforward causal inputs and outputs (p. 213).

While I am in full agreement with the inherent limitations of regression analysis, I am committed to the use of mixed-methods as a means to capitalize on the strengths and minimize the weaknesses of both qualitative and quantitative approaches. Analyzing the EGRA dataset is useful for several reasons: first, only minimal regression analyses were conducted on the data and thus we should maximize our understanding of the existing data; and second, discovering the potential limitations of the data for statistical analysis (e.g. nonlinearity) may be critical to conceptualizing the complexity of the literacy process.

Another limitation of this study is that my intention is to understand literacy in Ethiopia as a complex social process and as part of a larger complex environment of

educational quality. The inherent challenge of such an undertaking is my limited ability to collect all the data needed for a truly holistic view of a very complex task. I am limited by a range of factors including time, cost, language, geographic distance, the incredible ethno-linguistic and cultural-historical diversity of Ethiopia, and the simple fact that I am an “outsider”.

Ethical Considerations

Ethical considerations for the EGRA dataset were considered by RTI. As a research institution receiving federal grants, RTI follows the U.S. federal regulations for conducting ethical research. As noted in RTI’s description of the process, Institutional Review Boards (IRBs) must be utilized by all organizations that conduct research involving human subjects. For each of the assessments conducted to date, RTI has included a verbal consent for human subjects participating in the assessments. Prior to administering the assessment, enumerators described the objectives of the study and inform students that the assessment is anonymous, will not affect their grade in school, and will be used to make improvements in how children in their country learn to read. If school principal or teacher surveys are conducted as part of the study, a similar written consent process is completed. While this consent process is often unfamiliar to local country counterparts, the process is often welcomed by students and teachers who reported feeling empowered at being given the option to participate in the assessment.

Likewise, I also obtained IRB approval from the University of Maryland for my own qualitative data collection and analysis. This required verbal informed consent from all my participants. Prior to consent, I developed relationships with the school directors to describe the purpose and nature of my research. After obtaining the directors’ approval

for willing participation in data collection, I explained the purpose and nature of my research to each participant and received their verbal consent as well. Participants were free to seek clarifications, and I ensured that they knew they could stop participation at any time. To protect participants' anonymity, I changed their names in this document and conducted all interviews and focus groups in a private environment as far away from other people on the school grounds as possible. All raw data was stored on a secure and separate hard drive, which was locked away when not in use. Besides my research assistant, who signed a non-disclosure agreement, I ensured no one else has access to these data at any time. As requested by the IRB, the data will be maintained for three years after the study is completed and afterwards will be destroyed.

Conclusion

This chapter explored both the epistemology and my approach to mixed research methods that I applied in this study. My commitment to the mixed-methods approach is grounded in the spirit of the New Literacy Studies which, while historically use ethnographic approaches, seek to understand the complexity of the practice of literacy through a variety of lenses and perspectives. In this study, I wed linear analyses of quantitative data with an iterative, nonlinear analysis of qualitative data to gain as thorough an understanding of the current practice of literacy in Ethiopia as possible, while paying special attention to the relationships between complex variables and concepts. The established rigor of the collection of the EGRA dataset and my attention to validity of qualitative data, combined with thorough analyses, ensure the credibility of my findings.

As argued in earlier chapters, we are disserved by the tendency in the field of education to reduce multifaceted concepts and practices like literacy and quality down to easily measurable variables. I am critical of the reemerging discourse on the international agenda of basic literacy skills as a proxy for educational quality that continues to ignore such complexities. My goal is that this study, which specifically utilizes methods to gain as holistic an understanding of these concepts as possible, will unpack the literacy practice and the quality of education in Ethiopia.

Chapter 5: Phase I, Findings from Quantitative Data

Introduction

This chapter presents the analysis of the EGRA data to answer the first research question I posed in this study: *According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related?* As described in chapter three, the analysis of the quantitative EGRA data makes up the first phase of this broader mixed methods study which seeks to understand the relationship between the contextual factors that affect literacy development and educational quality improvement in Ethiopia.

The Ethiopia EGRA Dataset

The literature presented in chapter two highlights the importance of the child's context that ultimately influences literacy development. The EGRA dataset contains rich information on in-school and out-of-school factors which I used to explore the relationship between those factors and the child's achievement on the oral reading fluency and reading comprehension scores of the EGRA.

In 2010, the data were collected from 338 sample schools in seven of Ethiopia's nine ethnically-based administrative regions. In total, 13,079 students were assessed by data collectors trained by RTI and the MOE. A panel of assessment design experts from RTI and the MOE decided that Tigray, Amhara, Oromiya, Somali, Benishangul-Gumuz, SNNPR (Sidama zone), Harari, and Addis Ababa would be sampled because these regions cover over 96% of Ethiopia's population and include a significant amount of linguistic and cultural diversity. EGRA is an orally administered assessment targeted at measuring the prereading and reading skills foundational to later reading and academic

success. The EGRA took approximately 15 minutes to administer and included a variety of subtasks which generated potential dependent variables, or student scores, on the following components: letter (or fidel) sound fluency, phonemic awareness, word naming fluency, unfamiliar word naming fluency, oral reading fluency, reading comprehension, and listening comprehension. In addition to these student literacy subtask assessments, a family background questionnaire was administered to students, as well as head teacher and teacher questionnaires at the school level. These questionnaires gathered data on student background, the classroom environment, and community factors.

The variables that are most commonly used in assessing overall reading skills are defined below:

1. *Connected text oral reading fluency*: ability to read a passage that tells a story, about 60 words long. It was timed to 1 minute and the passages were targeted at the early Grade 2 level in vocabulary and complexity. The stories were created to be appropriate for particular regions as well so they would be contextually appropriate for the child.
2. *Comprehension in connected text*: ability to answer several comprehension questions based on the passage read. Each assessment has 5 questions.

These are the dependent variables I selected for my analysis and are described in detail later in this chapter. A snapshot of these variables shows that for the entire country of Ethiopia, a large percentage of children in Grade 2 read zero words correctly, as measured by the oral reading fluency rate. In Sidama, the percentage of nonreaders was 69.2%, and in Oromiya it was 41.2%. Only Harari (17.9%) and Addis Ababa (10.1%)

have percentages of zero scores less than 20%, with the largest regions (SNNP, Oromiya, Tigray, and Amhara) all having Grade 2 zero scores above 25%.

Even in Grade 3, significant percentages of children remained nonreaders. In Somali (21.4%), Amhara (17.0%), Sidama (54.0%), and Oromiya (20.6%), after 3 years of school, large proportions of children remained completely unable to read a single word correctly in their mother tongue. Interestingly, it appears that large decreases in the percentage of nonreaders occur between Grade 2 and 3 for Oromiya, Benishangul-Gumuz, and Tigray specifically. In each of the 8 regions, at least 80% of children—and in the case of Sidama, 100%—were not reading at the expected oral reading fluency rate.¹⁰

The problem of very low achievement exists for oral reading fluency as well as reading comprehension. Figure 7 below shows the percentage of children whose reading comprehension scores were 0% correct. It is clear that a large percentage of children did not comprehend what they were reading, though RTI notes that the questions were quite simple and targeted at a basic Grade 2 level such that children should have been able to answer 4 or 5 of the 5 comprehension questions correctly. In Sidama (72.8%), Tigray (56.9%) and Benishangul-Gumuz (54.0%), more than half of the region's children in Grade 2, did not understand a story at all. Even in the urban regions (Harari and Addis Ababa), one quarter or more of children could not comprehend basic questions. There were some improvements between Grade 2 and 3, with less than one third of Grade 3 children scoring zero in all regions (except Sidama at 61.8%).

¹⁰ This is based on benchmarks from other countries and preliminary RTI analysis from Ethiopia. Using these EGRA data, the MOE will be able to determine appropriate grade-level benchmarks for children's oral reading fluency. Currently, the GOE's minimum learning competencies state that by the end of grade one, students are expected to be "readers" by reading at a "fluent" rate. To both better define and achieve these competencies, USAID will address this in its upcoming READ project.

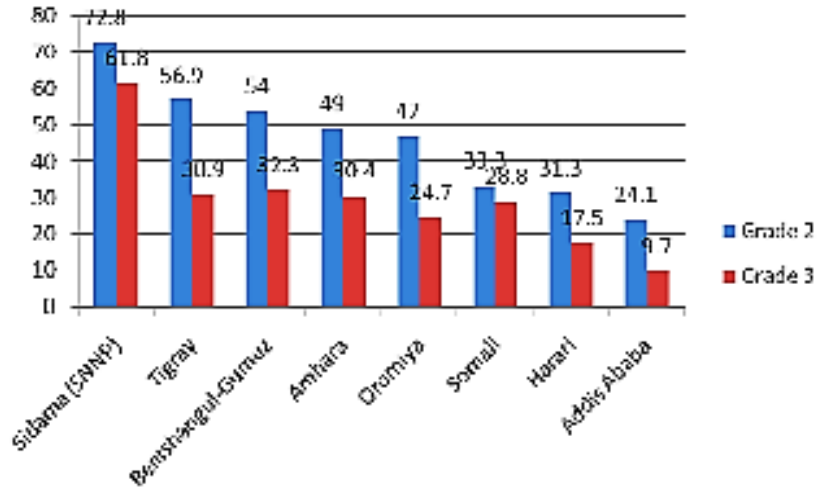


Figure 7 - Percentage of children in Grades 2 and 3 with Reading Comprehension Scores of 0%

Source: Piper, 2010

These findings indicate that even though the purpose of mother tongue instruction is to ensure that children understand what they read, the children’s inability to decode the words they read means they are unable to understand the text, although they are likely to have the oral vocabulary to understand it. This is confirmed after analysis of the listening comprehension task, which shows that the average child can listen to and comprehend spoken stories quite well. RTI concludes that the gap between the reading comprehension and listening comprehension scores is consistently large, and shows that the problems identified by this EGRA are specific to *reading*, and not due to general language issues in the children (Piper, 2010).

Addis Ababa Regional EGRA Data

As mentioned in chapter previous chapters, due to the mixed-methods design of this study, I restricted my analysis to the Addis Ababa data since this is the region in which I was able to visit schools and collect follow-up qualitative data. As noted, the full EGRA dataset is sampled from 338 schools in seven of Ethiopia’s nine ethnically-based

administrative regions, for a total sample size of 13,079. The Addis Ababa regional data is comprised of a sample of 1,304 students from thirty-three primary schools in the city and its outskirts. Figure 8 below shows Addis Ababa’s regional administration units.

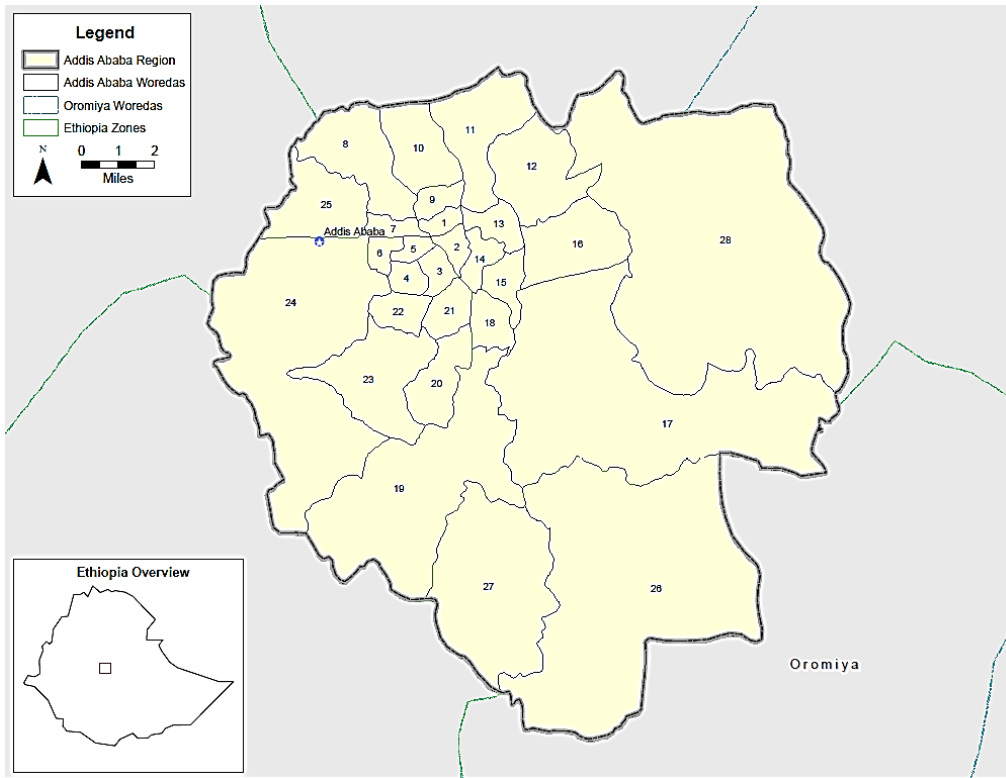


Figure 8 - Map of Addis Ababa City Administration

Source: Piper, 2010

Sampling

For the national sample, RTI, with the support of the MOE, developed a sampling framework which employed a three-stage stratified sampling, using proportional to population sampling at the regional and school levels and systematic sampling at the classroom level. Similar to other national assessments in Ethiopia (such as the NLA), the EGRA did not utilize a simple random sample of the population of students in each group of interest for cost and efficiency reasons. However, to make inferences about the whole

population, and not just those sampled, RTI weighted their data. To adjust for the fact that the sample design did not give each individual an equal chance of selection, students were grouped within schools, schools within *woredas* (districts), *woredas* within regions, and corrected for this grouping using weights. RTI claimed that the weights increased the power of the individuals who were sampled, making them represent the estimated population within each group.

However, the procedure in Addis Ababa was a different, two-stage sampling. This is because as Addis Ababa is considered both an administrative region and a city, there was no need to sample at the *woreda* level. As I restricted my analysis to Addis Ababa and am only interested in those students actually sampled, I opted to use unweighted survey data in my analysis. While the standard recommendation in the literature is to use weighted regression of subpopulation samples (e.g. Gurevitch & Hedges, 1999), others note that the use of unweighted data is also justified. Fletcher and Dixon (2011) conducted a simulation to assess the coverage of the 95% confidence interval for both weighted and unweighted regression across a range of likely research scenarios. They found that unweighted regression is often more reliable than weighted. They note: “Unweighted regression will often be more robust because it does not make use of potentially poor information on the measurement error variances” (p. 168). In practice, this means that only if the actual weights are known that the optimality of weighted regression applies; this is seldom the case in reality and in the case of EGRA, they are only estimations. Other researchers (e.g. Bement & Williams, 1969; Cochran, 1954) have noted similar conclusions. As such, my regression analyses will utilize unweighted Addis Ababa subpopulation data.

Descriptive EGRA Findings

For those regions using Amharic as the language of instruction, Addis Ababa's scores were the highest, which is unsurprising as Addis is the most urban of the regions using Amharic. There were only modest differences between males and females in Addis Ababa, with the advantage fluctuating between genders. This is unusual when compared with the rest of the country, as girls performed more poorly than boys in rural regions. Like the rest of the country, scores are much higher in Grade 3, which means children are still improving on their ability to identify letters in the third grade. With respect to oral reading fluency, the scores are closer to those of familiar word fluency than to unfamiliar word fluency (34.5 in Grade 2 and 46.9 in Grade 3). RTI notes that it is plausible that students are not taught to read using decoding skills that might more rapidly increase their oral reading fluency outcomes (Piper, 2010). Reading comprehension scores are less than what might be expected given the fluency scores, with 37.2% for Grade 2 and 49.7% for Grade 3. This indicates that children do not understand what they are reading. Out of the entire country, Addis Ababa had the lowest percentage of zero scores in the sample, but a large number of students still scored zero on a number of sub-task assessments. 8.7% of word naming fluency, 18.4% of unfamiliar word fluency, 10.1% of oral reading fluency, and 24.1% of reading comprehension assessments in Grade 2 were still zero. Table 6 displays these overall Addis Ababa raw scores below per assessment sub-task.

Table 6 - EGRA Scores in Addis Ababa Region

		Addis Ababa EGRA Scores						
Task		Grade 2			Grade 3			Total
		Total	Female	Male	Total	Female	Male	
Amharic	Fidel Identification	67.0	65.4	69.2	84.5	88.4	82.0	76.1
	Phonemic Awareness	8.0	8.0	7.9	8.6	8.4	8.8	8.3
	Word Naming Fluency	38.2	38.0	38.4	53.8	55.8	51.0	46.3
	Unfamiliar Word Fluency	21.7	21.6	21.7	28.2	28.2	28.2	25.1
	Oral Reading Fluency	34.5	34.5	34.5	46.9	48.1	45.3	41.0
	Reading Comprehension	37.2	37.2	37.3	49.7	50.4	48.8	43.7
	Listening Comprehension	69.3	68.9	69.9	68.8	64.3	74.8	69.0
Zero Scores (%)	Word Naming Fluency	8.7	8.3	9.3	3.4	2.3	4.7	6.0
	Unfamiliar Word Fluency	18.4	18.2	18.7	13.9	15.0	12.4	16.0
	Oral Reading Fluency	10.1	10.9	9.1	3.8	4.7	2.6	6.8
	Reading Comprehension	24.1	24.3	23.8	9.7	10.1	9.1	16.6

Source: Piper, 2010

In Figure 9 below, the percentages of children scoring at different levels are graphically depicted. The top line shows Addis Ababa region as a whole, and the lines beneath depict the sub-cities within Addis Ababa. In Akaki-Kaliti and Addis Ketema, none of the children scored zero words per minute on oral reading fluency. On the other hand, more than 20% of children scored 0 in Yeka and Akaki. With respect to reaching the benchmark, more than 20% of children can read at the benchmark score of 60 wpm in both Addis Ketema and Arada. It is once again Yeka and Akaki that have more than 50% of children that read less than 30 wpm. For Lideta and Gullelie, the percentages are more than 40%. On the other hand, in Addis Ketema and Kirkos more than 80% of children read 30 wpm or more. As such, it is clear that there are disparities within the Addis Ababa region and while Addis Ababa is the best scoring region in the country, less than 20% of the region's children read at the 60 wpm benchmark.

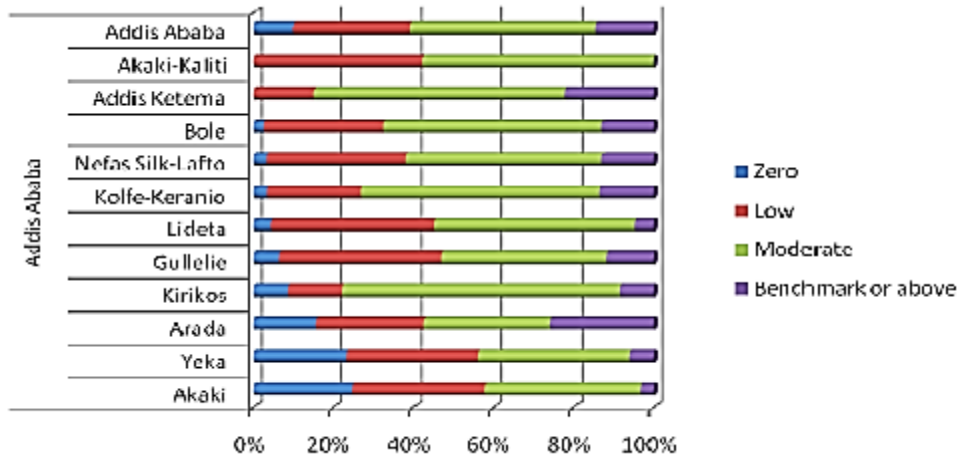


Figure 9 - Addis Ababa Woreda Percentage Score on Oral Reading Fluency by Sub-City

Source: Piper, 2010

In Figure 10 below, the Addis Ababa scores are disaggregated by grade and gender and compared against regional benchmarks for subtasks assessment scores. The scores plotted on the radial graph thus represent the percentage of success in meeting the benchmark. As noted, in contrast to the rest of the country, the gaps by gender are modest, with significant overlap in Grade 2 (blue line for boys and red line for girls) and Grade 3 (green line for boys and purple line for girls). Scores are skewed toward three areas: fidel¹¹ naming, oral reading fluency, and listening comprehension. It appears that the average Grade 2 child is 60% of the way to the fidel naming benchmark, and Grade 3 children are 80% of the way there. Similarly, Grade 2 and Grade 3 children are 60% and 80%, respectively, of the way to the benchmark for oral reading fluency. The scores are much more modest, though, for decoding (40% on average for all groups) and reading comprehension (40% for Grade 2 and nearly 60% for Grade 3).

¹¹ Fidels are the letters used in Sabeen script languages, including Amharic.

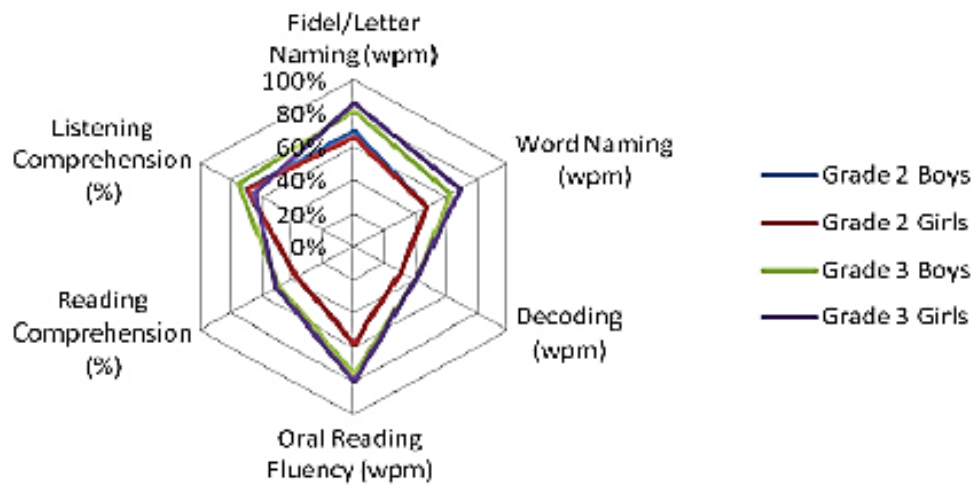


Figure 10 - Radial Plot for Grade 2 Grade 3 Boys and Girls against Addis Ababa Benchmarks for Six EGRA Tasks

Source: Piper, 2010

Variable Selection

While RTI investigated in detail the breakdown of scores for each sub-skill of literacy for grades 2 and 3, their analysis of the relationships between contextual factors and overall reading skills outcomes is limited (see: Piper, 2010). First and foremost, RTI only analyzes the bivariate relationships between selected individual contextual factors and the oral reading fluency outcome. Oral reading fluency is a measure of overall reading competence: the ability to translate letters into sounds, unify sounds into words, process connections, relate text to meaning, and make inferences to fill in missing information. As skilled readers translate text into spoken language, they combine these tasks in a seemingly effortless manner (automaticity). Because oral reading fluency captures this complex process, it is commonly used to characterize overall reading skill (Hasbrouck & Tindal, 2006, in Gove & Wetterberg, 2011).

RTI further notes that tests of oral reading fluency, as measured by timed assessments of correct words per minute, have been shown to have a strong correlation with more complex assessments of reading ability. For example, Fuchs et al (2001) noted that oral reading fluency had correlation of 0.91 with the Reading Comprehension subtest of the Stanford Achievement Test. But poor performance on a reading comprehension tool suggests that the student could have had trouble with a number of sub-tasks like decoding, reading fluently enough to comprehend, or vocabulary. Based on this, RTI cites literature that claims that oral reading fluency is the most useful measure for assessing early reading skills for several reasons: 1) it avoids the floor effect (or bottom-out effect) that students might not test as well with paper/pencil method (frequently used with comprehension measures); and 2) oral reading fluency is consistently highly correlated with measures of comprehension found in many studies (see Wilson, 2005; Fuchs, Fuchs, Hosp, and Jenkins, 2001; Fuchs, Fuchs, and Maxwell, 1988; Juel, 1988).

Yet, RTI notes in the Ethiopia EGRA Technical report that the Addis Ababa scores are skewed toward oral reading fluency, with 60% of Grade 2 children and 80% of Grade 3 children achieving the benchmark. I used a test of the Pearson correlation to address the relationship between oral reading fluency ($M = 40.79$, $SD = 22.22$) and reading comprehension score ($M = 2.20$, $SD = 1.46$). At an alpha level of 0.05, this test was found to be statistically significant, $r(1302) = 0.78$, $p < 0.05$, indicating that these two variables are indeed positively related. But, while oral reading fluency is significantly correlated with reading comprehension in Addis Ababa, the raw reading comprehension scores are considerably lower than oral reading fluency with 40% for

Grade 2 and nearly 60% for Grade 3 meeting the benchmark. This indicates that while some children are able to demonstrate automaticity, they still do not understand what they read. For this reason, my analyses builds upon RTI's by comparing the regression analysis results against both oral reading fluency and reading comprehension as dependent variables.

The selection of independent variables is limited to those available in the dataset. RTI collected contextual data through three instruments: face to face questionnaire administration with pupils and paper-based questionnaires completed by teachers and school directors. These data sources generated 105 potential independent variables from which to choose. Because these variables represent data on students', teachers', and directors' individual backgrounds (out-of-school) and experiences within the school (in-school), natural groupings of variables emerged. Table 7 summarizes these groupings. I utilized data from these groupings to both reduce the overall amount of data (discussed in the next section) and to aid in interpretability of variance explained by in-school and out-of-school factors. To this end, 'out-of-school factors' identified for inclusion were variables associated with student background characteristics, socioeconomic status, and family support. In-school factors tested were those relating to school context, school physical and human resources and school/family involvement. Those variables that were self-identifying due to their inclusion as part of Addis Ababa regional data (e.g. urban, official language of Amharic, region) and those with large amounts of missing data were dropped as potential covariates.

Table 7 - Thematic Grouping of Predictor Variables

	Themes	Examples of Variables
Out of school	Student Background Characteristics	Whether the student attended KG or preschool, grade repetition, age, grade, gender, whether the language of instruction matches the mother tongue, and has access to other reading materials in the home.
	Socioeconomic Status	Whether the student has amenities in the home like phone, electricity, toilet, bicycle, car, etc.
	Family Support	Whether the student's parents are literate and they receive help on their homework from parents, siblings, tutors, or others in the home environment.
In school	School Context	Location of school, whether the school is urban, uses multigrade or shift classrooms, matches mother tongue and instruction languages, has problems with absenteeism, school closures, and overage students.
	School Infrastructure	Whether the school has amenities like electricity, water, and separate toilets.
	School Material Resources	Whether the teacher has access to teaching resources like other reading materials, libraries, ICT, teachers' guides and language textbooks.
	School Human Resources	Whether the teacher is trained, level of qualification, and years of teaching experience. Whether the school director is trained in teaching and management, level of qualifications, experience as a trained teacher and director, supervision and management of teachers.
	School and Parental Involvement	Whether the school has a functioning PTA and frequency of PTA meetings.

One of the limitations of multiple regression analysis is the inevitable exclusion of variables that could possibly explain more of the variance in the dependent variables had they been measured and included in the dataset. No dataset is perfect. No dataset contains every possible variable that will have an effect on the dependent variable, thus model misspecification is inevitable. The design of this study attempts to ameliorate this

challenge by collecting follow up data from parents and teachers to explore their experiences and determine what other variables might affect the development of reading skills in Addis Ababa.

Data Screening and Reduction

The first step in my analysis was to screen the data for any unusual data points and univariate outliers. No obvious outliers were discovered. However, in the case of the reading comprehension score variable, a large amount of missing data was discovered: 71 missing data points out of the sample (n = 1,304). After clarifying with RTI, I learned that these 71 data points were coded incorrectly as missing. I re-coded them accurately as “0” to indicate that these pupils did in fact score a “0” on the assessment. These data points represent those students who could not understand the passage and questions well enough to even attempt to answer. Table 8 shows descriptive statistics for the two dependent variables, reading comprehension score and oral reading fluency.

Table 8 - Descriptive Statistics for the Two Dependent Variables in Addis Ababa (N = 1,304)

	Mean	SD	Minimum	Maximum
Oral Reading Fluency	40.79	22.22	0	124.29
Reading Comprehension	2.20	1.46	0	5

Principal Components Analysis

As mentioned, the amount of potential predictor variables contained in the EGRA dataset is quite large. To reduce the amount of data and increase interpretability of my results, I conducted factor analysis to summarize a number of original variables into a smaller set of variables that explain the important dimensions of variability. Specifically,

I used the principal components analysis technique to summarize observed variability by a smaller number of components. Since principal components analysis models the correlation matrix, the analysis is only as good as the correlations that comprise it. Thus, I explored the correlation matrices of each sub-group of thematically related predictor variables. I identified those variables that had correlations of at least a medium size (e.g., $> .30$) and created composites for those variables that are similarly grouped. Tables 9-17 below shows the initial bivariate correlations among variable groups.

Table 9 - Pearson Correlation Matrix among Student Background Characteristics Variables

	Oral Reading Fluency	Reading Comprehension Score	Attended Pre-primary	Repeated Grade	Age	Current Grade	Female	Mother tongue matches language of instruction	Has Textbook	Has Other Reading Materials
Oral Reading Fluency										
Reading Comprehension Score	.7767*									
Attended Pre-primary	.0609	.0554								
Repeated Grade	-.1369*	-.1198*	-.0733							
Age	.0594	.0578	-.2510*	.0211						
Current Grade	.2431*	.2022*	.0384	-.1303*	.2512*					
Female	.0574	.0212	-.1721*	-.0619	.0954*	-.0092				
Mother tongue matches language of instruction	.0792*	.1032*	.1511*	-.0114	-.0991*	.0624	-.0682			
Has language textbook	.0645	.0790*	.0587	-.0223	-.0107	.0913*	-.0094	.0581		
Has other reading materials	.0909*	.0673	.0980*	-.0125	-.0040	-.0076	.0088	.0740*	-.0537	

*p < 0.01

Table 10 - Pearson Correlation Matrix among Student Socioeconomic Status Characteristics Variables

	Oral Reading Fluency	Reading Comprehension Score	Has Radio	Has Phone	Has Electricity	Has TV	Has Toilet	Type of Floor	Has Bike	Has Motorcycle	Has Car	Has Animals
Oral Reading Fluency												
Reading Comprehension Score	.7767*											
Has Radio	-.0238	-.0267										
Has Phone	.0467	.0384	.1762*									
Has Electricity	.0647	.0488	.0271	.2980*								
Has Television	.0425	.0256	.1095*	.3970*	.3001*							
Has Toilet	.0590	.0581	.0746	.1460*	.2089*	.2218*						
Type of Floor	.0677	.0456	.0779*	.1918*	.0936*	.2804*	.1758*					
Has Bicycle	-.0788*	-.0734*	.0195	.0473	.0144	.0653	.0868*	.1057*				
Has Motorcycle	-.0131	.0045	-.0454	.0181	.0221	.0075	.0023	.0203	.2435*			
Has Car	-.0303	-.0442	.0614	.1016*	.0465	.1404*	.1036*	.1832*	.2178*	.1895*		
Has Animals	-.0979*	-.0905*	-.0126	-.0056	-.1211*	-.0431	-.0691	-.0037	.0645	.0370	.0370	.0370

*p < 0.01

Table 11 - Pearson Correlation Matrix among Family Support Variables

	Oral Reading Fluency	Reading Comprehension Score	Mother helps with Homework	Father helps with Homework	Siblings help with Homework	No one helps with Homework	Tutor helps with Homework	Others help with Homework	Mother is literate	Father is literate
Oral Reading Fluency										
Reading Comprehension Score	.7767*									
Mother helps with Homework	-.0271	-.0119								
Father helps with Homework	.0931*	.0810*	.0881*							
Siblings help with Homework	-.0665	-.0679	-.2222	-.3017*						
No one helps with Homework	.0130	.0214	-.1596*	-.2231*	-.4966*					
Tutor helps with Homework	.0017	-.0112	-.0455	-.0590	-.1201	-.0739*				
Others help with Homework	.0204	.0208	-.0849*	-.1100*	-.2385	-.1379*	-.0365			
Mother is Literate	.0365	.0279	.1644*	.1427*	.0830*	-.2285*	.0226	-.0441		
Father is Literate	.0703	.0347	-.0009	.2369*	.0792*	-.2445*	.0433	.0083	.3219*	

*p < 0.01

Table 12 - Pearson Correlation Matrix among School Context Variables

	Oral Reading Fluency	Reading Comprehension Score	Location of School	Students absent for more than a week in a school year	Duration of Teachers' Walk to School	Language of Instruction is in most Students' Mother Tongue	Frequent School Closings beyond regular calendar	Multigrade Classrooms	Shift Classrooms
Oral Reading Fluency									
Reading Comprehension Score	.7767*								
Location of School	-.0199	.0068							
Students absent for more than a week in a school year	-.0765*	-.0865*	.0103						
Duration of Teachers' Walk to School	-.0676	-.0713	.0124	-.0208					
Language of Instruction is in most Students' Mother Tongue	.0267	-.0059	.1236*	-.0940*	.0442				
Frequent School Closings beyond regular calendar	-.1099	-.0418	.1354*	.0330	-.3102*				

Multigrade Classrooms	.0175	.0374	.0245	-.0140	.	.	.
Shift Classrooms	-.0845*	-.0777*	-.2815*	.0061	-.2437*	.1881*	.4988*
							-.0213

*p < 0.01

Table 13 - Pearson Correlation Matrix among School Infrastructure Variables

	Oral Reading Fluency	Reading Comprehension Score	Has water	Has electricity	Has girls washroom
Oral Reading Fluency					
Reading Comprehension Score	.7767*				
Has water	.1497*	.1271*			
Has electricity	.0939*	.1245*	.4433*		
Has girls washroom	.1464*	.1322*	.1827*	.1827*	

*p < 0.01

Table 14 - Pearson Correlation Matrix among School Material Resources Variables

	Oral Reading Fluency	Reading Comprehension Score	Has Mother Tongue Textbooks	Has computer room	Has library	Has sufficient reading materials
Oral Reading Fluency						
Reading Comprehension Score	.7767*					
Has computer room	.0225	.0262	-.0037			
Has library	-.0107	.0047	.2287*	.0404		
Has sufficient reading materials	.0843*	.0441	.0678	.2621*	.2231*	

*p < 0.01

Table 15 - Pearson Correlation Matrix among School Human Resources (Teacher) Variables

	Oral Reading Fluency	Reading Comprehension Score	Teacher's highest qualification	Years of teaching experience	Years of experience trained teaching experience	Days of in-service training	Days of in-service training in teaching reading
Oral Reading Fluency							
Reading Comprehension Score	.7767*						
Teacher's highest qualification	-.0298	-.0034					
Years of teaching experience	.0728	.0995*	-.0963*				
Years of experience trained teaching experience	.0157	.0353	-.1428*	.8125*			
Days of in-service training	.0320	.0361	-.1391*	.1805*	.3431*		
Days of in-service training in teaching reading	.0449	.0237	-.0182	.2418*	.3405*	.4538*	

*p < 0.01

Table 16 - Pearson Correlation Matrix among School Human Resources (School Director) Variables

	Oral Reading Fluency	Reading Comprehension Score	Director's hours spent on instructional support	Director trained in school management	Director supported teachers in teaching reading	Frequency of Director's review of teachers' plans	Frequency of Director's teacher observations
Oral Reading Fluency							
Reading Comprehension Score	.7767*						
Director's hours spent on instructional support	-.0046	.0075					
Director trained in school management	.0552	.0691	.1236*				
Director supported teachers in teaching reading	.0879*	.0166	.1785*	-.2292*			
Frequency of Director's review of teachers' plans	-.0044	.0037	-.4400*	-.2878	.0393		
Frequency of Director's teacher observations	.1074*	.0906*	-.1477*	.1173*	-.0805	.1951*	

*p < 0.01

Table 17 - Pearson Correlation Matrix among School/Parental Involvement Variables

	Oral Reading Fluency	Reading Comprehension Score	Teacher holds meetings with parents	Functional PTA exists	Frequency of PTA meetings
Oral Reading Fluency					
Reading Comprehension Score	.7767*				
Teacher holds meetings with parents	.1150*	.1103*			
Functional PTA exists	.0851*	.0842*	.5304*		
Frequency of PTA meetings	-.0225	-.0375	.2852*	.1409*	

*p < 0.01

As there were high correlations between variables in the socioeconomic status, school context, school infrastructure and resources, family support, and school/parental involvement thematic groups, I reduced these variables into appropriate composites. These composites were generated in STATA 12 by adding up the variables, based on those that load highly on a particular factor.

Table 18 below shows the factor loadings for the newly created variables: “SESHouse” (socioeconomic indicators based on the relative wealth of the home), “SESTransport” (socioeconomic indicators based on the means of transportation), “SFamFactor” (variables indicating the level of involvement between the family and the school), “SIFactor” (variables indicating the level of infrastructure, and thus wealth, of the school), “SContext” (variables describing the use of time in the classroom through shifts and school closings), and “Father” (variables describing whether or not the father is literate and helps with homework).

Table 18 - Factor Loadings for Six New Composite Variables for the EGRA (N = 1,304)

	SESHouse	SESTransport	SFamFactor	SIFactor	SContext	Father
Has phone	.494					
Has electricity	.441					
Has television	.539					
Has toilet	.366					
Type of floor	.370					
Has bicycle		.601				
Has motorcycle		.576				
Has Car		.554				
Teacher holds meetings with parents			.707			
Functional PTA exists			.707			
Has water in school				.643		
Has electricity in school				.643		
Has girls washroom in school				.412		
School uses shift classrooms					.707	
School closings beyond regular calendar					.707	
Father is literate						.707
Father helps with homework						.707

Multiple Regression Analysis

As mentioned previously, RTI conducted initial regression analysis with selected predictor variables to examine their effect on the dependent variable, oral reading fluency. RTI's analysis, however, is limited in that it only explores one relevant dependent variable and only investigates its relationship with individual predictor variables without controlling for any other variables. Their results are summarized in Figure 11 below. The variables included are those that have a significant bivariate correlation with oral reading fluency (at $\alpha=0.05$ level) and the X axis depicts the number of words per minute (wpm) effect.

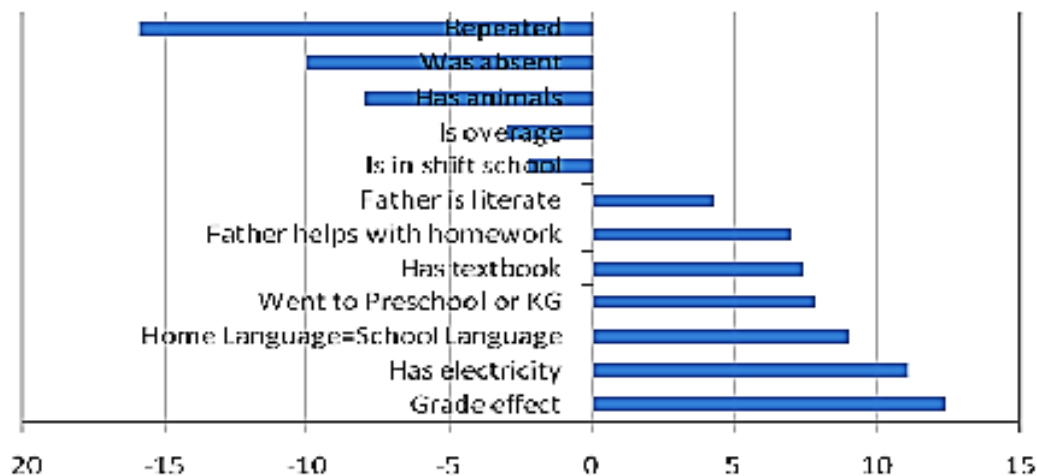


Figure 11 - Impact on Oral Reading Fluency

Source: Piper, 2010

RTI found that grade repetition has a strong negative relationship with oral reading fluency, such that if a child repeated a grade, their scores are on average 15.9 wpm lower. If the child's family has animals, their scores are on average 8.0 wpm lower. If the child is in a shift school, particularly the afternoon session, their scores are on average 2.2 wpm less. Father's literacy (average 4.3 wpm) and father helping with

homework (average 7 wpm) are both correlated with improved student outcomes. In addition, going to preschool or KG (average 7.8 wpm) matters quite a bit, as does having the textbook (average 7.4 wpm). Speaking the same language at home and at school is an important predictor (average 9.0 wpm), which is particularly important in a city like Addis Ababa with significant internal migration.

My analysis aims to take RTI's several steps further. Beginning where RTI's bivariate regression left off, I fitted several different multiple regression models to the data to explore how the combination of multiple relevant variables predict the dependent variables of oral reading fluency and reading comprehension. As RTI's analysis also only utilizes oral reading fluency as the dependent variable, my use of both dependent variables explores more fully the relationships between relevant predictor variables and multiple, more comprehensive measures of literacy.

Despite the data reduction techniques I employed to condense the data, the amount of predictor variables available in the dataset remained large, with thirty-four variables to choose from. To fit one "optimal" model in this case is very challenging. As each predictor is added, the significance of other predictors change and the overall significance of the model changes. Essentially, the fit of the model varies in relationship to variables contained within it. When there are many variables to choose from, this can present methodological and theoretical challenges in selecting the "optimal" model. Agresti (2007) offers the following advice: "First, include enough of them [predictors] to make the model useful for theoretical purposes and to obtain good predictive power. Second, as a counterbalance to the first goal, keep the model simple" (p. 630-631).

Klees (2008), notes that in theory, data are intended to be fit to an already specified model in regression analysis. But in situations such as the one I have described above, given the mass of potential variables, the model selection process is actually rather *unspecified*. Klees quotes Edward Leamer's article "Let's Take the Con Out of Econometrics," in which he describes the reality of regression analysis:

The econometric art as it is practiced at the computer . . . involves fitting many, perhaps thousands, of statistical models. . . . This searching for a model is often well-intentioned, but there can be no doubt that such a specification search invalidates the traditional theories of inference. The concepts of unbiasedness, consistency, efficiency, maximum likelihood estimation, in fact, all the concepts of traditional theory utterly lose their meaning by the time an applied researcher pulls from the bramble of computer output the one thorn of a model he likes best, the one he chooses to portray as a rose. (Leamer, qtd. in Klees, 2008, p. 314).

It is also never possible for all conceivable variables that affect reading outcomes to be included in the dataset. Many variables were perhaps not measured or were measured with error, or perhaps unknown. These misspecification challenges are inherent in using multiple regression analysis as a research tool. As such, I am cognizant of the role I play as the researcher in my model selection and the potential problems that Leamer notes of bias, consistency, and estimation. As a result, I offer several different models that researchers could present as valid results of the EGRA data. I keep in mind Agresti's advice, but also know that no model will ever be "right" or "perfect".

Due to the large number of potential predictor variables, the methods by which I determined my model include first an automated variable selection procedure in which

STATA 12 scans the data to choose a subset for the model. The software constructs these models by adhering to a specific criterion (the most popular include forward, backward, and stepwise) to sequentially remove or add variables until those that are left make a significant contribution in predicting the dependent variable. This method is a useful solution when the model is initially unspecified, as in this case. I chose to use forward selection procedure: forward selection adds one variable at a time to the model until reaching a point where no remaining variable not yet in the model makes a significant partial contribution to predicting y . At each step, the variable added is the one that is most significant, having the smallest p-value and the largest t test statistic, or equivalently the one providing the greatest increase in R^2 . As this process is automated, many researchers critique the use of such variable selection procedures as there is no guarantee of a resulting “sensible” model (Agresti, 2007). Thus, my analyses compare models derived by the forward selection procedure to other models in which I add in theoretically relevant predictor variables from in-school and out-of-school contexts which were significantly correlated with the dependent variable. I also explored fuller models with extraneous potentially theoretically relevant variables added in, but none made significant contributions to the model, so those presented in the following tables are those that most fully represented the data. All models were tested for multicollinearity using both the variance inflation factor (VIF) and tolerance ($1/VIF$) tests. None indicated multicollinearity.

The results of the regression analyses are displayed in Tables 19-20 below.

Table 19 - Multiple Regression Models for Reading Comprehension

Reading Comprehension Model 1 – Forward Selection				Reading Comprehension Model 2 – Added Out-of-School Variables				Reading Comprehension Model 3 – Added In-School Variables			
<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>		<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>		<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>	
School Infrastructure	.210	.035	***	School Infrastructure	.219	.035	***	School Infrastructure	.216	.035	***
Frequency of Director’s teacher observations	.141	.039	***	Frequency of Director’s teacher observations	.141	.039	***	Frequency of Director’s teacher observations	.140	.039	***
Current Grade	.480	.088	***	Current Grade	.458	.087	***	Current Grade	.439	.088	***
Mother tongue matches language of instruction	.413	.139	**	Mother tongue matches language of instruction	.310	.140	**	Mother tongue matches language of instruction	.390	.140	**
Father support	.112	.039	**	Father support	.090	.039	*	Father support	.085	.040	*
				Child has language textbook	.326	.149	*	Child has language textbook	.349	.150	*
				Siblings help with homework	-.312	.088	***	Siblings help with homework	-.310	.088	***
								Absent	-.171	.104	
<i>Constant</i>	.290	.256		<i>Constant</i>	.206	.289		<i>Constant</i>	.265	.292	
<i>Number of cases</i>	988			<i>Number of cases</i>	983			<i>Number of cases</i>	982		
<i>R²</i>	.091			<i>R²</i>	.105			<i>R²</i>	.108		
<i>Adjusted R²</i>	.086		***	<i>Adjusted R²</i>	.099		***	<i>Adjusted R²</i>	.100		***

*p < .05. **p < .01. ***p < .001.

Table 20 - Multiple Regression Models for Oral Reading Fluency

Oral Reading Fluency Model 1 – Forward Selection				Oral Reading Fluency Model 2 – Added Out-of-School Variables				Oral Reading Fluency Model 3 – Added In-School Variables			
<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>		<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>		<i>Independent Variables</i>	<i>Unstandardized B</i>	<i>Std. Error</i>	
School Infrastructure	3.212	.583	***	School Infrastructure	3.354	.582	***	School Infrastructure	3.378	.577	***
Current Grade	9.385	1.372	***	Current Grade	9.317	1.366	***	Current Grade	8.935	1.382	***
Frequency of Director’s teacher observations	2.015	.647	**	Frequency of Director’s teacher observations	1.926	.645	**	Frequency of Director’s teacher observations	2.620	.666	***
Father support	2.573	.623	***	Father support	2.462	.631	***	Father support	2.306	.636	***
Sub-City	-.540	.249	*	Sub-City	-.524	.248	*	Sub-City	-.901	.263	**
Is Female	2.799	1.377	*	Is Female	2.541	1.386		Is Female	2.738	1.402	*
Mother tongue matches language of instruction	4.397	2.194	*	Mother tongue matches language of instruction	4.498	2.192	*	Mother tongue matches language of instruction	3.798	2.229	
Child has other reading materials at home	3.198	1.434	*	Child has other reading materials at home	3.964	1.443	**	Child has other reading materials at home	3.994	1.458	**
School Context of time (closings, shift classrooms)	-2.028	.622	**	School Context of time (closings, shift classrooms)	-2.089	.619	**	School Context of time (closings, shift classrooms)	-1.494	.636	*
				SES Transport	-1.579	.510	**	SES Transport	-1.694	.601	**
				Siblings help with homework	-3.275	1.397	*	Siblings help with homework	-3.122	1.415	*
								Directors supported teachers in how to teach reading	8.052	2.003	***
<i>Constant</i>	765.222	349.928		<i>Constant</i>	744.762	348.372		<i>Constant</i>	1267.812	369.779	
<i>Number of cases</i>	948			<i>Number of cases</i>	946			<i>Number of cases</i>	906		
<i>R²</i>	.140			<i>R²</i>	.153			<i>R²</i>	.166		
<i>Adjusted R²</i>	.132		***	<i>Adjusted R²</i>	.143		***	<i>Adjusted R²</i>	.158		***

*p < .05. **p < .01. ***p < .001.

These regression analyses were utilized to determine the influence of various contextual out-of-school and in-school factors on reading comprehension scores and oral reading fluency scores, while controlling for other various contextual factors included in the models. As noted, Models 1 for each dependent variable were selected through forward automatic selection procedures in STATA 12. The subsequent second and third models were generated by adding in other theoretical relevant and significantly correlated variables to the previous models.

Reading Comprehension model 1 regressed students' reading comprehension scores on their in-school and out-of-school variables in the EGRA dataset. Forward automatic selection narrowed the model down to five predictors from a possible thirty six. The overall multiple regression was statistically significant ($R^2 = .091$, $F(5, 982) = 19.65$, $p < 0.001$). The variables accounted for about 8.6% of the variance in student reading comprehension scores. Holding all else constant at an $\alpha = 0.05$ level, each of the independent variables had a statistically significant positive effect on reading comprehension scores. These variables included the level of school infrastructure, the frequency of the school director's observations on the teachers in the classroom, the grade level of the student, whether the student's mother tongue matches the language of instruction in the school, and the level of support provided to the student by the father through his literacy level and support with homework.

Reading comprehension model 2 regressed students' reading comprehension scores on those variables from model 1, in addition to other relevant out-of-school variables including whether the child had a language textbook and whether the siblings helped with homework. The overall multiple regression was statistically significant ($R^2 =$

.105, $F(7, 975) = 16.38$, $p < 0.001$). The variables accounted for 9.9% of the variance in student reading comprehension scores. Adding the new variables to the model did not change the significance of each original predictor. Holding all else constant at an $\alpha = 0.05$ level, whether the child had a language textbook and whether the siblings helped with homework had a significant effect on reading comprehension. It is important to note that whether the siblings helped with homework had a negative effect on achievement of reading comprehension scores.

Reading comprehension model 3 regressed students' reading comprehension scores on those variables from models 1 and 2, in addition to other relevant in school variables including whether the student had missed over a week of school in the last year. The overall multiple regression was statistically significant ($R^2 = .108$, $F(8, 973) = 12.78$, $p < 0.001$). The variables accounted for 10% of the variance in student reading comprehension scores. Holding all else constant at an $\alpha = 0.05$ level, whether the student had missed over a week of school in the last year did not have a significant effect on reading comprehension scores. The remainder of the variables remained the same in their significance in predicting reading comprehension achievement.

Oral Reading Fluency model 1 regressed students' oral reading fluency scores on their in-school and out-of-school variables in the EGRA dataset. Forward automatic selection narrowed the model down to nine predictors from a possible thirty six. The overall multiple regression was statistically significant ($R^2 = .140$, $F(9, 938) = 16.97$, $p < 0.001$). The variables accounted for 13.2% of the variance in student oral reading fluency scores. Holding all else constant at an $\alpha = 0.05$ level, each of the independent variables had a statistically significant effect on oral reading fluency scores. These

variables included the level of school infrastructure, the grade level of the student, the frequency of the school director's observations on the teachers in the classroom, the level of support provided to the student by the father through his literacy level and support with homework, the sub-city, whether the student is female, whether the student's mother tongue matches the language of instruction in the school, whether the child has other reading materials at home, and the use of time in the school (whether the school was closed outside of holidays whether the classrooms were shift).

Oral Reading Fluency model 2 regressed students' oral reading fluency scores on those variables from model 1, in addition to other relevant out-of-school variables including SES Transport and whether the siblings helped with homework. The overall multiple regression was statistically significant ($R^2 = .153$, $F(11, 934) = 15.28$, $p < 0.001$). The variables accounted for almost 14.3% of the variance in oral reading fluency scores. Adding the new variables to the model removed the significance of being female in the model. The new variables, SES Transport and whether siblings helped with homework (negative effect) both had a significant effect on oral reading fluency, holding all else constant at an $\alpha = 0.05$ level.

Oral Reading Fluency model 3 regressed students' oral reading fluency scores on those variables from models 1 and 2, in addition to the other relevant in school variable about whether the school director support teacher in how to teach reading specifically. The overall multiple regression was statistically significant ($R^2 = .170$, $F(12, 893) = 15.19$, $p < 0.001$). The variables accounted for almost 15.8% of the variance in student oral reading fluency scores. Holding all else constant at an $\alpha = 0.05$ level, adding the new variable to the model removed the significance of whether the students mother tongue

matched the language of instruction and reintroduced the positive effect of being female, while also having a significant effect in predicting oral reading fluency achievement.

These results suggest that both in-school and out-of-school variables indeed have an important influence on both students' reading comprehension scores and oral reading fluency scores. These effects hold even after students' additional contextual variables (both in- and out-of-school) are taken into account. All these models also explain a noticeably low amount of variance in reading skills outcomes. Other researchers have discovered similar results in literacy studies. Klinger et al (2006) explained less than 30% of the variance in reading outcomes and Leslie and Allen (1999) used variables that explained between 20% and 40% of the variance. Stanovich (1986) notes that in-school variables typically explain very little of the variance in achievement, with family background variables dominating the various factors.

When compared against one another, the reading comprehension and oral fluency models share some similarities, yet also show some differences. Holding all else constant at an $\alpha = 0.05$ level, the grade level of the student, the level of school infrastructure, the frequency of the school director's teacher observations, the level of father support, whether the mother tongue matches the language of instruction (in five out six models), and in four out of six models whether siblings helped with homework all had an effect on student achievement in both reading comprehension and oral reading fluency. Whether the student's siblings helped with homework, absenteeism (only significant in the reading comprehension model), SES Transport (only significant in the oral reading fluency model), and the use of time in the school (whether the school was closed outside of

holidays whether the classrooms were shift; only significant in the oral reading fluency model) all had a *negative* effect on achievement on the dependent variables.

Other predictors emerged only in one of the two outcome models. For instance, whether the child had other reading materials available in the home was only significant in the oral reading fluency models, but not in the reading comprehension models.

Whether the child has a language textbook was only significant in the reading comprehension models, but not in the oral reading fluency models. Whether the student is female (which had a *positive* effect), the sub-city, the school context of time (closings and shift classrooms), the SES Transport factor, and whether the school directors supported teachers in how to teach reading emerged only in the oral reading fluency models as significant predictors of achievement, but not in the reading comprehension models. As seen in the Tables 9 through 17, there were other variables from both in-school and out-of-school contexts that were correlated with one or both of the outcome variables. For instance, the years of teaching experience was significantly correlated with reading comprehension scores and whether the school has sufficient reading materials was significantly correlated with oral reading fluency scores. Student absenteeism, grade repetition, and whether the student's family had animals had a significant negative correlation with both. When added to the regression models however, these variables did not have a significant effect on the outcome, when controlling for the other variables. These similarities and differences are explored further in the following chapters.

Implications for Qualitative Phase II

Despite a number of inherent methodological problems with the use of multiple regression analysis, comparative results from a number of different models displayed a

complicated picture of the relationships between in-school and out-of-school contextual factors and the reading outcomes of oral reading fluency and reading comprehension. As demonstrated by the multiple regression analyses conducted with the EGRA data, the reality of the Ethiopian context is highly complex. No one model can ever perfectly fit the data, nor can the data at hand ever perfectly reflect the reality of the Ethiopian classroom and the life of the Ethiopian student. Furthermore, the regression models explained a noticeably small amount of the variance in the scores. This hints that there are other explanatory variables that are not included in the models and can be further explored through qualitative data. For example, possible omissions from the EGRA data variables is class size, prior test scores, better defined socioeconomic proxies, and other environmental factors. As a result, the next chapter explores qualitative data collected from parents, teachers, students, and education sector stakeholders to further explain those factors that affect achievement of early literacy skills.

Conclusion

The EGRA scores in Ethiopia indicate that a vast majority of students are not performing at the expected levels. Many children are unable to read a single word, even after Grade 3. While Addis Ababa is the highest scoring region in Ethiopia, it still faces serious problems in reaching its respective reading achievement goals. The multiple regression analyses presented in this chapter reflect the reality of Ethiopian context is highly complex.

Chapter 6: Qualitative Data Findings

Introduction

This chapter presents the analysis of the qualitative data to answer the second and third research questions I posed in this study: *According to qualitative data, how do parents' and teachers' perspectives explain and substantiate the contextual factors identified in the EGRA dataset and do other factors emerge?* and *Given the answers to research questions one and two, what are the factors associated with achievement that are most favorable and most challenging for literacy development?* As described in chapter four, the analysis of the qualitative data makes up the second phase of this broader mixed methods study which seeks to understand the relationship between the contextual factors that affect literacy development and educational quality improvement in Ethiopia.

The School Site Context

As mentioned in previous chapters, due to the mixed-methods design of this study, I restricted my analysis to Addis Ababa, since this is the region in which I was able to visit schools. According to the 2007 census, Addis Ababa houses 3,384,569 people, although unofficial estimates are higher. Nearly all of Ethiopia's ethnic groups are represented in the city and its outskirts, but the largest groups are the Amhara, Oromo, Gurage, Tigray, Silt'e, and Gamo each of which has its own language. Amharic is most widely spoken, but Afan Oromo (especially on the outskirts of the city as Addis Ababa is nestled within the larger Oromiya region), Gurage, Tigrinya, Silt'e, and Gamo are also widely spoken. The EGRA dataset contains a sample of 1,304 students from thirty-three primary schools in the city and its outskirts.

Based on my initial analysis of the school-level quantitative EGRA data, I purposively sampled two out of thirty three total schools in the Addis Ababa region. These schools were selected based on their performance on the two key measures in the EGRA: one school performed well on both reading comprehension and oral reading fluency and the other school performed poorly. The willingness of school directors, teachers, and parents to participate in the data collection was also a key factor in school selection. The willing participation of schools was geographically linked. Many schools located in central Addis Ababa suffered from “research fatigue”, or the frequent in-and-out presence of outside researchers who arrive in Addis Ababa and visit the closest and most convenient schools to the central locations of the capital city. As a result, I selected schools that were located on the outskirts of Addis Ababa that represented both low (Fitawrari Abayneh Metekia Primary School) and high (Fitawrari Habte Giorgis Primary School) mean scores on the reading comprehension and oral reading fluency measures on the EGRA. While these schools characterized both the higher and lower achieving schools in Addis Ababa, the student scores within each school still represented a large amount of variation.

Fitawrari Abayneh Metekia Primary School (Abayneh here forth) is a large primary school on the outskirts of Addis Ababa. It enrolls 1,538 students in grades one through eight, employs 74 teachers (majority male), and has an average class size of 50 students per class. Fitawrari Habte Giorgis Primary School is an exceptionally large primary school also on the outskirts of the city. It enrolls 4,006 students in grades one through eight, employs 110 teachers (also majority male), and has an average class size

of 74 students per class. The table below includes these and other identifying characteristics of each school site.

Table 21 - School Sites

Name of School	Fitawrari Abayneh School	Fitawrari Habte Giorgis School
<i>Sub City</i>	Akaki	Kolfe
<i>Woreda</i>	Kality	Keranio
<i>Established (Year)</i>	1	14
<i>Area (Square meter)</i>	1963	1955
<i>Language of Instruction</i>	31,000	23,463
<i>Type (Grade)</i>	Amharic	Amharic
<i>Lesson Time</i>	Primary	Primary
<i>Number of Teachers</i>	Full Day	Full Day
<i>Number of Students</i>	74	120
<i>Number of Class Room</i>	1,538	4,006
<i>Number of Administration Staff</i>	31	54
<i>Has a functional parent-teacher association</i>	21	15
<i>Has water, electricity, and separate girls washroom</i>	Yes	Yes
<i>Mean Reading Comprehension Score* (minimum 0, maximum 5)</i>	Yes	Yes
<i>Mean Oral Reading Fluency Score* (minimum 0, maximum 124.29)</i>	1.1	2.7
<i>% of students whose families have electricity*</i>	25.6	50.6
<i>% of students whose families have animals*</i>	88	100
<i>% of students who attended pre-primary*</i>	28	8
<i>% of students who have a language textbook*</i>	38	88
<i>% of students who were absent more than a week in the school year*</i>	72	100
<i>% of students who have other reading materials at home*</i>	3	5
<i>% of students whose mother tongue matches language of instruction*</i>	35	35
<i>% of students whose mother can read/write*</i>	100	90
<i>% of students whose mother help with homework*</i>	48	78
<i>% of students whose father can read/write*</i>	8	13
<i>% of students whose father help with homework*</i>	73	93
<i>% of students whose siblings help with homework*</i>	13	28
<i>% of students who receive no help with homework*</i>	38	55
	3	5

* Data from the EGRA 2010 sample of 40 students in each school

As elaborated in chapter four, I collected data at these schools through several techniques including semi-structured interviews and focus groups with teachers and parents. The school directors of each school assisted me in purposively selecting parents of children who were in grades 2 and 3 at the time of the 2010 EGRA and who would also agree to participate in the data collection. The implication of this selection is that these parents are those most frequently involved with the school since school directors knew them by name and believed that they would willingly participate in data collection. Teachers were selected on the basis of being present and available during my school visits and that they teach Amharic in the second and third grades. I used focus group discussions to elicit information from parents and teachers that was useful in understanding how they view the quality of their school and what challenges the students face in achieving early literacy skills. Each focus group discussion lasted an average of forty five to sixty minutes, for a total of four focus group discussions with teachers and parents at each school. Each focus group discussion had four or five participants. I also conducted semi-structured interviews with the explicit purpose of collecting rich data on the individual experience. I searched for perceptions, attitudes, and opinions that helped me better understand the various factors that affect literacy achievement and educational quality. Each interview lasted between thirty and sixty minutes for a total of ten interviews. Table 22 below displays the number and demographic characteristics of research participants.

Table 22 – Research Participant Information

Participant¹²	School Site	Participant Status	Data Collection Type	Mother Tongue	Ethnic Group	Religion	Age	Gender	Level School Completed	Employment Status
Dawit	Giorgis	Parent	Interview	Amharic	Amhara	Orthodox	38	Male	10 th Grade	Self-employed
Desto	Giorgis	Parent	Focus Group	Amharic	Amhara	Orthodox	28	Male	8 th Grade	Self-employed
Aster	Giorgis	Parent	Interview	Amharic	Amhara	Orthodox	26	Female	6 th Grade	Unemployed
Erko	Giorgis	Parent	Focus Group	Amharic	Amhara	Orthodox	31	Female	8 th Grade	Employed
Birhanu	Giorgis	Parent	Focus Group	Afan Oromo	Oromo	Orthodox	37	Male	9 th Grade	Employed
Dubale	Giorgis	Parent	Focus Group	Amharic	Amhara	Orthodox	29	Male	4 th Grade	Unemployed
Fitsum	Giorgis	Teacher	Focus Group	Afan Oromo	Oromo	Orthodox	26	Male	Diploma in Mathematics	Employed
Urgessa	Giorgis	Teacher	Interview	Afan Oromo	Oromo	Orthodox	59	Male	2 year Certificate	Employed
Eshatu	Giorgis	Teacher	Interview	Amharic	Amhara	Orthodox	24	Female	Diploma in Civics	Employed
Bekama	Giorgis	Teacher	Focus Group	Amharic	Amhara	Orthodox	26	Female	Diploma in Social Science	Employed
Teshome	Giorgis	Teacher	Focus Group	Afan Oromo	Oromo	Orthodox	23	Male	2 year Certificate	Employed
Girma	Giorgis	Teacher	Focus Group	Amharic	Amhara	Orthodox	31	Male	2 year Certificate	Employed
Tasew	Giorgis	School Director	Interview	Amharic	Gurage	Orthodox	24	Male	Diploma	Employed

¹² Names were changed to protect research participants' anonymity.

Anely	Abayneh	Parent	Interview	Afan Oromo	Oromo	Orthodox	38	Female	7 th Grade	Unemployed
Yegile	Abayneh	Parent	Focus Group	Amharic	Amhara	Orthodox	32	Female	10 th Grade	Employed
Endale	Abayneh	Parent	Focus Group	Afan Oromo	Oromo/ Amhara	Orthodox	25	Male	8 th Grade	Unemployed
Melaku	Abayneh	Parent	Focus Group	Afan Oromo	Oromo	Orthodox	31	Female	7 th Grade	Unemployed
Yidel	Abayneh	Parent	Focus Group	Amharic	Amhara	Orthodox	36	Female	5 th Grade	Self-employed
Buzayehu	Abayneh	Parent	Focus Group	Afan Oromo	Oromo	Orthodox	29	Female	9 th Grade	Unemployed
Roman	Abayneh	Parent	Interview	Afan Oromo	Oromo	Orthodox	38	Male	10 th Grade	Employed
Workinesh	Abayneh	Teacher	Focus Group	Amharic	Gurage	Orthodox	24	Female	Diploma in Language	Employed
Tsegaye	Abayneh	Teacher	Focus Group	Amharic	Amhara	Orthodox	23	Male	Diploma in Social Science	Employed
Zewde	Abayneh	Teacher	Interview	Afan Oromo	Oromo	Orthodox	26	Female	Diploma in Social Science	Employed
Abebe	Abayneh	Teacher	Focus Group	Amharic	Gurage	Orthodox	22	Female	Diploma in Natural Science	Employed
Mulugeta	Abayneh	Teacher	Focus Group	Afan Oromo	Oromo	Orthodox	23	Male	Diploma in Social Science	Employed
Bertukan	Abayneh	Teacher	Interview	Afan Oromo	Oromo	Orthodox	31	Female	2 year Certificate	Employed
Markos	Abayneh	School Director	Interview	Tigrigna	Tigray	Orthodox	41	Male	Diploma	Employed

As noted in the previous chapter, the variables in the EGRA dataset represent data on students', teachers', and directors' individual backgrounds (out-of-school) and experiences within the school (in-school), natural groupings of variables emerged. As such, the interview and FGD protocol were developed along the groupings that emerged through the EGRA data. Thus the analysis consisted of a coding process of sifting through the text within the transcripts and identifying the appropriate analytical categories. Throughout the analysis, general patterns and themes emerged that supported the grouping of the EGRA data. These themes were repeated throughout, allowing me to feel confident that my data had reached saturation. However, within these broader analytical themes, new data emerged that were not a part of the EGRA dataset, thus providing anew, rich perspective to view the contextual factors affecting the achievement of early literacy skills. Table 23 below presents the coding protocol that I used to analyze the qualitative data.

Table 23 - Coding Protocol

Out of School Factors	In School Factors
<i>Student Background Characteristics</i>	<i>School Context</i>
- Language	- Quality
- Gender	- Literacy
<i>Socioeconomic Status</i>	<i>School Infrastructure</i>
- Poverty	
<i>Family Support</i>	<i>School Material Resources</i>
- Parents' capacity/interest	- Textbooks
- Siblings' help	<i>School Human Resources</i>
- Living with family members	- Tutorial assistance
- Household responsibilities	- Skills in teaching reading
- Lack of interest	<i>School and Parental Involvement</i>

Out-of-School Factors

At both schools, my discussions with parents were particularly important to delve into the out of school factors that affect their children's literacy achievement. The

data on out-of-school factors in the EGRA dataset were mostly identified through face-to-face administration of a questionnaire with the children themselves. It is possible that both the instrument itself was limited in what information it could collect from children and the quality of data collected from children could be jeopardized if the child did not understand the question or if the child did not accurately know the answer to the question. All the parents I interviewed had children who were in grades 2 and 3 at the time of the 2010 EGRA data collection and they represented the Oromo, Amhara, Gurage, and Tigray ethnic groups. Their mother tongues were Oromifa, Amharic, and Tigrigna. In both schools, the language of instruction is Amharic.

Family Support

The parents' most commonly factor affecting their children's literacy achievement was the level of support that they were able to provide to their children at home. Further, every respondent, including teachers, noted that family support and various associated challenges were discussed. Parents from both schools agreed though that the majority of the responsibility for children's achievement in early literacy skills is the parents'. Parents felt that while the quality of the school is important, it is their responsibility to follow up with their children, ensure that they are doing their homework, and foster an interest for learning in their children. However, parents of course vary in their willingness or ability to do this. One parent at Giorgis stated:

There is a problem with regard to parents. There are a lot of parents who do not even care about their children's education. These parents should be attentive of their children by checking their children's exercise book if there is a homework given or if there is something the children don't understand.

Other parents noted that they feel their children's competence is mainly a result of the assistance provided at home. A parent at Abayneh noted: "There is no problem related to their [children's] teachers or school for that matter. Their problem in developing reading skill arises from the family." Regardless of performance, across both schools, parents acknowledged that their family's support of their children is critical for their children's achievement. Teachers also agreed that family support was critical for their students' success. However, their perspective was more critical of the support that parents are willing or able to provide.

Parents as Seen By Teachers

As mentioned above, teachers criticized many aspects of family support. One key issue is the capacity of the parents to help their children. An Abayneh teacher describes this situation: "The educational status of parents is also a factor. Students who come from an educated family tend to be good at reading since they get much assistance at home. On the contrary, students from illiterate families are made to focus on unnecessary thoughts."

Teachers also criticized parents' awareness or interest in their children's education. An Abayneh teacher described the importance of parents' interest:

I think for the development of a reading skill the role of the family is vital. If there is an interest of reading in the family, children's curiosity to read will be increased. Books and picture that are appropriate for children should be available at home. If there is not a reading habit in their family, children will not be interested in reading. In addition to textbooks, there should be other supplementary texts to assist them in developing their reading skill. Children should also have a convenient place for reading at their home.

When asked what factors prevent children from developing strong reading skills, one Giorgis teacher responded: “The factors are a lack of focus at home from the parents... the lack of interest for reading.” Another Giorgis teacher agreed: “... there is not a single parent who cares about Amharic language.” Teachers also reported that some parents were too busy to help their children. Nearby the Abayneh school, there is a large industrial factory that employs a large number of parents in the area and requires long working hours for little pay. While this reality is certainly reported as a common problem across Ethiopia, it remains an important restriction in families’ ability to help their children at home.

Parents’ Self-Description

When asked about their capacity to help their children at home, the parents responded similarly to the teachers. One parent from Abayneh describes the problem:

My children are not ranking [high performing] students. Even though they are satisfied with their school, my husband and me are both illiterate and couldn’t assist them after school. This limitation has made my children less competent at school. Had they have a home tutor they would have been better. What I want to say is that the school is in no way responsible for the poor performance of my children.

Similarly, another Abayneh parent notes: “My daughter has no grasp of any skill that she was taught... This problem with my daughter as I see it has nothing to do with the school or the teachers. Her problem arises from the fact that we have no one at home to assist her.”

However, parents still acknowledge that even if they have little capacity to help, they still play an important role in their children's success. One Abayneh parent notes:

If parents are educated they assist and follow up their children. In the case of uneducated parents what I can say is that these parents should still follow and make their children study even though they cannot directly assist them. The success of these children still depends on the strength of their parents, because children tend to engage in games and fun stuff if they are not directed. The uneducated parents should follow them to the maximum of their capacity.

Other parents in both schools similarly remarked that though they are not able to provide much direct assistance, they should still follow up with their children to ensure that they are studying and completing their homework.

When probed about the type of support parents provide at home, most parents at Giorgis school said that their children mostly complete their homework by themselves and only assist if there is something the child is having difficulty with. Moreover, many parents also admitted that they have limitations in their own capacity to assist. Many parents, even in the urban Addis Ababa region, identified themselves as uneducated. Indeed, the highest self-reported level of education was one parent noting that she had dropped out at tenth grade. The rest of the parents interviewed had completed less education. As a result, many parents noted that siblings assisted the younger children in completing their homework and teachers noted the same. However, the EGRA data indicated that the effect of this is less than ideal. The results from the multiple regression models in chapter five show a significant *negative* effect of siblings' help on homework

on both dependent variables of oral reading fluency and reading comprehension skills. It could be surmised that older siblings' poor skills are passed on to their younger siblings.

Socioeconomic Status

Parents are also limited in their ability to help their students at home due to their socioeconomic status. Most families in the areas surrounding the school make their living through working at a nearby factory or selling goods in small neighborhood market stands. The income levels are very low. Many others are unemployed. One parent at Giorgis said: "... this school is a school of children who have very poor families. Since these children cannot have access to valuable materials at home the school should find ways to get aid and provide them what they miss." Indeed, when asked what some of the factors are relating to achievement in early literacy skills, teachers at both schools indicated that the socioeconomic status of the family was important. The EGRA data indicated that SES of the family (measured by a proxy composite of home wealth related variables like electricity, television, flooring, etc.) was not a significant factor in predicting children's success. However, it could be surmised that the housing situation of the families in Addis Ababa was relatively constant. In the oral reading fluency models, SES Transport, a composite variable for SES measured as a composite of whether the family owned a mode of transportation including a bicycle, motorcycle, or car, was a significant predictor. This could indicate that while the housing situation of families was relatively constant, the differentiation of wealth status was drawn by the ownership of transportation. Additionally, for both the reading comprehension and oral reading fluency outcomes, the school infrastructure variable, a composite of whether the school has electricity, water, and a separate girls' washroom, was a significant predictor. The school

infrastructure variable is a proxy indicator for the wealth of the community as a whole. As such, we can see that the EGRA data and qualitative data confirm the importance of SES on the success of students.

Another key issue associated with the socioeconomic limitations of the family is the availability of supplementary reading materials for children at home. Supplementary materials are identified by both parents and teachers as critical for their children's success. An Abayneh parent describes this: "The things I do for my son include buying books that are appropriate to his age and interest. For example, books that have stories and pictures keep him reading because he likes these stories and pictures. This way he practices reading while being entertained." Yet many parents interviewed noted that they were unable to afford this.

Living with Family Members

A new factor that emerged from the qualitative data was that many students are not living with their father or their mother. Instead, they live with extended family members or other caregivers. This was raised repeatedly by teachers as problematic for the student's achievement. One Giorgis teacher noted:

There are some students who are never absent, but there are also students who miss class more than twice in a month. Yesterday I called one of the parents whose child missed class more than twice in a month and found out that the student's parent is neither father nor mother. That child is living with relatives who make her very busy with inappropriate tasks like taking care of a child, cooking, as well as washing clothes.

Indeed, teachers in the focus groups discussion at Giorgis school noted that nearly half of the students are not living with their parents and thus do not get much assistance at home. There are many possible reasons for this including: that the child is an orphan; the child is from a single parent household and raising the children is too much burden for one parent; or that the parents' work commitments require them out of the home. Given that Ethiopians, like in many other sub-Saharan African countries, conceptualize the family as not only the nuclear family, but as a larger extended network of members, that the child would not live directly with his/her parents is not all too uncommon. But teachers at Abayneh also raised this as a problem. One asserted: "A number of children are not living with their parents and there is a lack of concern for their education. They may also come [to school] without eating and they will be tired during class." Another Abayneh teacher agreed and noted that many students live with family members who are not their parents and who do not care for them as much as they should. As such, these family members/caregivers are only involved when there is a serious problem.

Responsibilities at Home

The reality that students are kept out of school due to household responsibilities is a socioeconomic reality for many students, whether students live with their parents or with extended family members. This is less the case in Addis Ababa than in rural areas (Piper, 2010), but qualitative data from parents and teachers reveal that this is still a problem in both Giorgis and Abayneh schools. A teacher at Abayneh said:

The main problem is related with family background. Families with low awareness are not focused on the education of their children. They make their children busy with home stuff and there is no time for the children to study, they

even sometimes won't let their children participate on the after class study in the school.

Another teacher at Abayneh agreed: "Yes, they [students] frequently miss class. It is mostly because of their parents that they miss class. Parents give them something to do, make them look out for smaller ones [children], or even look after the house when everybody else is out." In the majority of accounts described in the data, it is girls who are more frequently kept out of school or have limited time to practice reading or to complete homework because they are required to perform tasks at home.

Gender

The EGRA data show that girls outperform boys in the Addis Ababa region and in several of my multiple regression models gender was not a significant predictor of achievement. However, parents and teachers note that in their experience, gender differences still exist. As mentioned above, girls are given more household tasks that take them away from attending class and studying outside of school. One Abayneh parent notes: "Parents tend to give more attention for their sons. They mostly make their daughters busy by assigning them other home duties. Because of this girls tend to be poor achievers in a classroom... I think their expectation is for their son." At Abayneh though, the school urges parents to treat their children equally. One parent explained:

Other families discriminate between their children. Most families make girls busy at home with home activities. The suppression on girls makes them less competent in school. We discuss this in a school meeting. Parents are told to make their daughters free so that they have enough time for studying and give them additional home tasks afterwards.

However, parents and teachers in both schools noted that gender norms are changing. While it used to be an accepted fact that boys outperformed girls, it is now girls that are outperforming boys. A teacher at Giorgis noted: “Discrimination has highly minimized now. It was in the old days that boys were favored. Now, in fact, majority of competent students are girls. In my judgment also it is girls who are competent in my class.” When asked whether there is discrimination between boys and girls, another Giorgis teacher stated:

From my observation on my students I will say no. Girls used to be poor achievers a few years back. A single girl would not be found in one to twenty class ranks. This is changed now. In fact they have become dominant in that class rank category. This I believe shows the change in attitude towards girls in our society. For instance I have in my class a boy and a girl from the same family. They are treated equally in everything that I can observe.

Parents who have both boys and girls noted similar trends in their children’s achievement.

Teacher and parents agreed, however, that the role of the mother and father in their children’s education, remain different. When asked who played a larger role in the involvement in the school, teachers and parents from both schools indicated that the mother was the most involved. One Giorgis teacher said: “When I force students to come with their parents, most of the parents who come are mothers.” However, the role of the father is unclear, garnering varying reports from parents and teachers in the schools. An Abayneh mother claimed: “It is me who is involved in the matters of my children and their school. Their father doesn’t care about their education. Even when they ask him, he

will tell them that it's up to them to learn or to quit." A Giorgis teacher similarly noted: "It is only for a serious matter that fathers show up. For the rest of the time it is mothers who are involved." These findings are important when compared to the EGRA data. In most of the multiple regression models, it was fathers' help with homework that had a significant positive effect on achievement; mothers' help did not.

Language

Another important factor that teachers and parents in both schools raised is the critical role that language plays in the development of reading skills. In the EGRA data, whether the child's mother tongue matched the language of instruction at the school was a significant predictor of achievement in both oral reading fluency and reading comprehension. At Abayneh school, where the school director noted that nearly half of the students have a different mother tongue than Amharic, several teachers feel that this mismatch is the largest challenge for students to develop early literacy skills in Amharic. An Abayneh teacher described a typical case:

There was once a student who can't speak Amharic and even can't write her name and it was difficult for me [to know] what to do about it. So what I did was to inform to the school about the case and make her parents come to school. The administration decided to get the matter solved by a language teacher since I was a science teacher at the moment. Finally the student dropped out.

In some cases in the qualitative data, parents and teachers noted that the mismatch between mother tongue and the language of instruction was mitigated by children's attendance in pre-primary school (or kindergarten). Indeed, Abayneh started a preschool on the school ground for these students with a donation from an NGO. But still many

more children are unable to attend. Abayneh teachers also noted that they attempt to alleviate such language problems by arranging situations in which students who have a different mother tongue interact regularly with children whose mother tongue is Amharic and they inform parents to communicate with their children in Amharic at home.

In-School Factors

At both schools, I also discussed with parents, teachers, and school directors about what in school factors affect children's literacy achievement. In addition, I sat in on several Amharic language classes (three at each school with different teachers) to observe the classroom environment. While the courses were conducted in Amharic and I could not follow the content in detail, I was able to make observations about the school context and environment, the classroom conditions, and the general instructional practice of the teacher.

School Context

When asked about the quality of education at their school, parents and teachers had mixed opinions. At Abayneh, parents generally felt happy with the school. One parent noted: "The quality of education in this school is very good. I said this because of what I observed in my 2nd grade daughter. She can even read English in a good way. She does her homework by herself. They have even taken her to do a reading for 6th and 7th graders. Therefore I am very satisfied with the school." Another said: "I would like to stress on the strength of the school. It is a very good school with a great passion to offer quality education. The teachers are very much concerned with the safety of our children." Finally, another Abayneh parent claimed: "The quality of education offering in this school is very good. The teachers are very good in teaching. I can say the school follows

every student thoroughly. Even when there is a problem with students the school immediately report to parents and solve problems.” When asked about what indicates a quality education, one Abayneh parent responded:

Okay, the main criterion in evaluating quality of a certain school is its capacity to make students pass successfully, i.e. the coming grade level. With this regard, this school has made most of its 8th grade students pass the national exam. With regard to reading and writing competencies, I have checked upon my son and he is good in these skills.

Teachers at Abayneh shared this parent’s opinion that the quality of their school is demonstrated through its high scores on exams. Most parents and teachers at Giorgis also noted that the school was able to offer a quality education. Teachers regularly referenced the “good reputation” the school has in the area. Yet parents at Giorgis were quicker to critique the school than at Abayneh. A parent contradicted: “Before I brought my daughter here what I heard about this school was not good. But after my daughter started to learn here my earlier attitude is totally changed. This is because of what I observed on my daughter. She is only a 2nd grader but she can read English.” Another parent described:

This school is where my father and I were taught. In light of this fact the school is better now than any of the years I can remember. Even though this school is one that I can say has a good quality, it also has various weaknesses... For example there is shortage of teachers and textbooks as well as reference books. In addition, the school also has shortage of technological equipment like computers. Because I believe that the quality of education should be seen in light if the fact that it is

problem solving and it is moving alongside with current advancement. The other problem is that some teachers are not working hand in hand with parents. These are the problems I can forward.

Likewise, Giorgis teachers felt that they were able to offer a good quality education, but with limitations: “This school has a good reputation. I say it offers a good quality education even though there are aspects that affect a quality of education like the large number of students most of whom come from a very poor family where there is no awareness of educating children properly.”

When asked for specific feedback as to why teacher and parents felt the way they did about school quality, several defining characteristics similar to both schools emerged as challenges. Respondents in both schools described absenteeism for the reasons noted in earlier sections, the mismatch of mother tongue language and language of instruction, the socioeconomic status of the community whose students attended the schools, and the student to teacher ratio (50:1 in Abayneh and 74:1 at Giorgis).

School Infrastructure

The results of the EGRA data showed that the infrastructure of the school is a significant factor in predicting achievement. However, in the qualitative data, school infrastructure was rarely mentioned as a factor. Interviews with school directors revealed that each school has electricity, enough tap water for drinking and hand washing, and separate male and female latrines. However, at Giorgis, there are only 20 latrines (10 for girls and 10 for boys) for a total of 4,006 students. At Abayneh, where the student population is significantly less at 1,538 total students, there are 32 latrines (16 for girls and 16 for boys). In parent and teacher interviews, the only references to the school’s

infrastructure were teachers at Giorgis who mentioned that electricity goes out sometimes during the day and at Abayneh, parents are asked to give a 20 Birr donation (around \$1.12) per year for the construction of a dining hall. The Giorgis school director also mentioned that parents are asked to give donations for construction of extra facilities at the school.

School Material Resources

An important factor to parents and teachers that was repeatedly referenced in the interviews is school textbooks. The intention at each school is that one Amharic language textbook is assigned to each individual student at the beginning of the school year and then returned at the end of the school year. However, teachers and parents at both schools mentioned that textbooks were either in short supply or they were damaged, especially at Abayneh. The result of this is that students are not able to regularly reference their texts at home and at school and often do not complete their homework. In my classroom observations, the average student to textbook ratio was about three to one at both schools. Parents and teachers also noted a lack of supplementary materials available at the school. While both schools have a library and a computer room, the amount of materials in these rooms is limited. Teachers have to sign up for times to visit each room and the sheer number of classes in each school is prohibitive for regular usage of such materials. Each school also has a room full of teachers' aids and reference books, but similar to library and computer materials, the amount of available resources when compared to the number of teachers makes regular use difficult.

School Human Resources

A key element of the in school context is of course the human resources available at the school. As mentioned, Giorgis has 120 teachers for 4,006 students and the support of 15 administrative staff members and Abayneh has 74 teachers for 1,538 students and the support of 21 administration staff members. These ratios indicate that Abayneh has more human resources available to it to support both classroom and administrative functions. However, many teachers at both schools are assigned to teach in subjects that they were not trained in during pre-service teacher education. In fact, out of all teachers interviewed only one teacher held a diploma in language. The rest held diplomas in natural science, mathematics, civics, or social science. The Giorgis school director also noted that one of the key challenges noted regarding teachers is a lack of interest and motivation of young teachers, in particular. This may be due in part to the fact that they are not teaching the subject that they were trained in, but school directors also noted that it is also due to low salaries.¹³

A new theme that emerged from the qualitative data was a new tutorial assistance program initiated at Abayneh. While this program was not available at the time of the EGRA data collection, parents noted that it has been helpful for their children to gain the extra support. Abayneh teachers are assigned to assist students with their studying after class time is over. The school creates tutorial schedules to review what students were taught in class. Teachers are not compensated for this and “conduct tutorial sessions for free, with only an intrinsic satisfaction.”

¹³ Fresh Diploma graduates no years of experience earn 1,427 Birr (about \$78) per month and Degree Holders earn a salary of 1,644 Birr (about \$90). Those with work experience can earn up to 3,000 Birr (\$165) per month.

Parents were both appreciative and critical of teachers. Overall, parents at Abayneh expressed gratitude for the teachers at the school. One parent noted:

I would like to thank the teachers in this school. They are very good in handling children. Even when students fight they try to solve it with much consideration. It is only after many patience and struggle that they call parents. And it is also after a number of records that they decide to expel students out of the school. They expel a student only when they are left with no solution. This is also done for the sake of that student, so that he learns and come back by the coming year. ... I am grateful for every member of the school community including the guards. They all look after our children with much concern.

However, parents at Giorgis were more critical of the teachers. Parents commented that they heard the reputation of the teachers at the school was not “that good” and that they lacked teaching skills in language. One parent criticized: “In fact my son has got textbook, but I don’t think he is being taught Amharic reading skills in the classroom properly. The teacher simply gives them homework and doesn’t even correct it the next day.” Indeed, teachers themselves (in both schools) noted that their main mode of instruction is to give reading homework and have them read aloud in class. My observation in the classroom validates this. Classrooms were crowded, multiple children shared textbooks, and the main mode of instruction employed by teachers was either rote repetition of words or letters on the chalkboard or having students read aloud the same text one after the other.

Skills in Teaching Reading

As hinted above, another key theme that emerged as part of the human resources available at the school was the teachers' skill in teaching *reading*, as clearly distinguished from teaching *language*. Not only do most teachers teach a subject that they were not specifically trained in, but they are also not equipped with specific skills to teach children how to read. When asked about specific pedagogical techniques for teaching reading, teachers at both schools named various instructional techniques like pairing better readers with poor readers for group work and asking students to build from reading a word to a phrase to a sentence. But all observed teachers in this study have their students spend the majority of class copying and repeating words, phrases, and sentences. Many teachers remarked that they had taken a training course on Amharic, but when asked whether teachers have taken a course or training that help them teaching concrete reading skills, such as decoding, most remarked that they have not. A teacher at Giorgis remarked: "I have not taken such training. I am teaching without a technical knowledge in teaching reading skill." This was the case at both Abayneh and Giorgis.

Family Involvement in the School

As indicated in previous sections, both parents and teachers emphasized the importance of the role of the family in their children's achievement. At Giorgis, teachers noted a serious problem with parental involvement. One teacher said:

I better say that there is no parent involvement [with the school] at all, because most parents come to school only when their children are in trouble. Of the five parents I know who come to school, four of them are mothers. Apart from these parents, the involvement of the other parents can said to be very poor.

At Abayneh, on the other hand, parents commented that the school held them accountable for their children's attendance and behavior. Parents noted that their children were regularly threatened with expulsion and they described meetings that the teachers called with them to discuss how well the students were performing. One parent described a meeting:

We attended a meeting once last year just before the school is closed. They told parents whose children show a weak performance, that the school will expel their children if they don't make their children study. The school also asked if we have any complaints about teachers. There was indeed a problem with teachers last year, which is not seen at all this year. Last year the teachers used to discriminate in classrooms and even on achievement. However, this year students are appreciating their teachers.

Another parent, who described her daughter as troubled, described such a call from the teacher:

I have been called to the school by her teacher so many times to discuss about problems. I begged the teacher and told her my problems and she then told me to leave it for her and promised she will do everything in her capacity. The teacher also told me that even though I am not education, I should follow up my daughter after school and make her study and do homework. Like the teacher told me, when I ask her [daughter] where her homework is she would tell me she has not been given any. But when I check her classmates in the neighborhood they would show me what they had been given. Because of this the school once again called me and told me that they are going to expel her or to demote her back to

kindergarten. Then I asked the school to make her repeat 1st grade rather than sending her back, otherwise it will not be good for her morale when her equals make it to the next grade in the school she is expelled out of. This problem with my daughter as I see it has nothing to do with the school or the teachers, they are trying to help. Her problem arises from the fact that we have no one at home to assist her.

It appears that the leadership at Abayneh maintains a high level of involvement with the parents to address problems. At Giorgis, when asked whether he communicates with parents, one teacher responded: “There is no mechanism of doing that. The class is not manageable.” Another said: “Most of them [parents] do not involve at all. Unless we force it, they will never show up at school. I haven’t seen a single parent who would come to school to see how his/her children are doing so far.”

These meetings at Abayneh are separate from official parent teacher association (PTA) meetings. Directors at both schools have an official PTA that incorporates parental feedback into decisions made about the school’s quality of education and utilization of resources. At Abayneh, there are four parents, one student, and two teachers in the PTA and they meet once every two weeks. At Giorgis, there are five parents, one student, and two teachers and they meet “as the need arises.” However, when asked about the existence of the PTA, some teachers and parents knew about it and some did not. This is not surprising given the small size of the PTAs at each school.

Key Similarities and Differences between School Sites

Several key similarities are shared between the high scoring Abayneh and the lower scoring Giorgis. Both schools face similar challenges (as discussed in chapter 3)

that plague the Ethiopian education system including: lack of qualified teachers and learning resources in the school, parental inability and unwillingness to support their children's education, socioeconomic hardships, a mismatch between mother tongue and language of instruction, and a general lack of interest in reading. These are core problems shared between both Abayneh and Giorgis.

However, some subtle differences emerged between the lower scoring Abayneh and the higher scoring Giorgis. As noted, the most commonly cited factor affecting achievement is that of family environment and support to the student at home. As shown in Table 23 earlier in this chapter, at Abayneh mothers and fathers were less literate and less frequently helped their children with homework. However, Abayneh teachers and administrators made marked efforts to address the role of the family at school, and on the whole, the relationship between the school and family is different at Abayneh than at Giorgis. At Abayneh, teachers and the school directors established a higher level of accountability of the parents to attend to their children's behavior and performance in school. The school took on more responsibility as well to address the gaps (through tutorial services, for example) and educate the parents themselves in what their role should be. But it appears that if parental capacity is low and the home environment is detrimental to learning, the school's efforts to mitigate this may be futile, at least in the short term.

Indeed, the challenging out-of-school factors that students face at Abayneh were more evident than those at Giorgis. At Abayneh, teachers and parents more frequently noted that parents were unable to support their children at home because of their insufficient skills and the high prevalence of children living with extended family or

caregiver rather than their parents. Thus, the associated challenges of increased household responsibilities and the lack of awareness about the child's education are also higher. Moreover, the lack of interest in reading and education was also more frequently discussed at Abayneh and fewer students have language textbooks. Additionally, at Abayneh, a school located more squarely in the Afan Oromo-speaking outskirts of Addis, teachers, parents, and administrators noted that more students' mother tongue did not match the language of instruction. Moreover, fewer students attended pre-primary school at Abayneh, less students' families have electricity, and more students' families have animals, which are all proxy indicators for a lower socioeconomic status. Even the distinctly improved student to teacher ratio at Abayneh, a commonly cited indicator of quality education, did not mitigate these effects.

What became evident through the qualitative data collection process is how reluctant parents were to criticize the school. They took the bulk of the responsibility of their children's achievement on themselves and only after probing did they critically discuss the responsibilities of the teacher and the administrators. (When they did, it was limited.) Critics have noted the highly politicized nature of government and power in Ethiopia's ethnically decentralized system. Human Rights Watch, in a 2009 report, claimed that local government officials often withheld basic services to individuals based on their allegiances to the ruling party. Political intimidation at the individual level can have a powerful effect on the individual's willingness to criticize or even provide suggestions to local government institutions, in this case the local public primary school. As an outsider, I can never fully understand this, but my own observation of Ethiopians'

response to their government is that of silence. As such, the qualitative data in this study most likely reflect the political nature of the everyday lives of Ethiopians.

Definitions of Quality

To complete the second phase of this study, I discussed the concept of quality with parents, teachers, and administrators and held several unstructured conversations with education stakeholders in Ethiopia from several institutions including the Ministry of Education and non-governmental organizations. We discussed various issues relating to how to define the quality of education and how literacy development initiatives can be used to improve the quality of education. When asked about their concept of a quality education, Ministry of Education officials all used the phrase “fit for the purpose.” One official described:

This [quality education] all depends on what framework and what philosophy you follow. In Ethiopia, we see the quality of education of that which is “fit for the purpose”. In our case, this is economic, political, and social development. This should directly lead to the development of our country out of poverty and the development of human resources to support that. Primary education, in particular, should be fit to the purpose of the needs of those students, specifically for the purpose of thinking development.

Another official highlighted the contextual nature of a quality education:

[There are] a lot of definitions, but context is the general consensus when we are talking about quality education. What we mean by quality education: one that produces people who are fit for the purpose of our country’s development. It used to be a measure of quality of education by how much English one spoke. Now it’s

more important if we can read our own language. Having Marxist ideology took us nowhere. There are different definitions of democracy and development. For us, we are over 80 nationalities and have different ways of life and other cultural differences. Therefore, our education is a cultural thing.

An NGO representative similarly noted the importance of a quality education for future growth:

You can look at it from the economic perspective of a quality education is one that allows students to grow and be active participants in their society and to be able to make a living, and whatever education it takes to achieve that. Quality education is one that opens doors. It's one that gives students the basic skills that they need to be successful in life and that allow more opportunities for them down the road, because they are fluent in English, they are fluent in Amharic, they have sound math and analytical skills. The better education they have, the more opportunities that are going to be available to them for their future.

When I asked teachers and parents to conceptualize the quality of education, they focused more singly on student achievement on standardized assessments. One teacher said:

By quality, specifically when I talk about a specific levels or grades, we say that it is high quality or poor quality when the students are actually performing up to the standard. There is a minimum learning competency for each grade level. So when students, after completing that third level, for students fail to meet that minimum learning competency we say that is a poor quality, but after there can be some other, other explanations as well...Our framework is that minimum learning

competency and the students perform up to that standard which it is a good quality. And the ones that are below that, the quality might be poor. So it has a lot to do with the student's performance. That's what I understand.

Similarly, when asked about quality, parents discussed their children's performance on exams and, like teachers, reported their views about the school's overall performance as compared to other schools in the region as mark of success. However, when further probed, parents described their views of quality in more depth. One parent expressed: "Any improvement in the school increases the understanding of the children. It also increases their curiosity to advance in education." Another described, "Educational quality is vital for a nation. It develops our children's creativity which is very importance for our development. Regarding our school, it is working for the development of the quality and it helps for my child to be a better citizen."

Unsurprisingly, leadership at the MOE emphasizes the role of the school in creating a quality education. An official described: "The MOE believes that the key factor for quality improvement is the leadership in the school. Teachers are, of course, indispensable to this. Leadership is a determining factor in school success." Other stakeholders acknowledge the role of the school, but also highlight the importance of the home environment as being underemphasized in current quality improvement initiatives. While the following quote from a representative of the NGO sector is lengthy, it warrants inclusion as it highlights the complex nature of the relationships between in-school and out-of-school environments. He explained:

There can be so many things that can contribute to a quality education system, but broadly speaking, quality education is when kids are coming out of school

equipped with the basic tools that they need to contribute to the cultural, social, economic development of their country and communities, when they are empowered to be actors in their own lives, to be proactive. And so, how do you get there and what does that take? Well obviously it takes a lot of things. It takes teachers who are committed and qualified and are in the classroom. It takes kids who are healthy enough to benefit from learning when they are in the classrooms. It takes materials, textbooks and it takes good leadership and management. I think why it's been so hard not only in Ethiopia, but in any country. You know I worked in Zambia for eight years prior to this. Why it's so difficult to achieve quality is because it is so multi-faceted, and if you're not addressing all of the integrated factors that contribute to either a good quality education system or a bad one, I think it's hard to argue that any of those individual inputs that you making are going to have much impact. So, you either do everything in a sense or you do nothing. I think that's one of the challenges... but at the same time you have to ask yourself if you're doing enough in each of those individual areas to really have an impact. Because the tendency with this type of program [USAID funded quality improvement programs] is that you get spread very thin. So, I think that's sort of a dilemma that this kind of program faces... it was tied to a more holistic approach to raise all the hopes of the education system at the same time, but then again the issue of the individual inputs are spread so thin that sometimes it's hard to make measurable gains in those particular areas.

The blend of these perspectives underscores the conceptual framework of this study in that quality is a complex, multifaceted concept that cannot be reduced to a single

initiative to improve a set of basic skills. At the micro level, as it pertains to literacy initiatives, without considering the in-school and out-of-school factors that affect achievement simultaneously, inputs are unlikely to result in optimal outcomes.

Conclusion

The second phase of this mixed methods study revealed several important findings. In both schools, directors, parents, and teachers emphasized the capacity and willingness of families to support their children as the most important factor in student achievement. Respondents also noted the importance of mother tongue, the availability of textbooks, and the community's socioeconomic status. While they cannot be directly specified for one model or another, these factors are in concordance with the results from the EGRA data, except that the relative weights of these variables change when other contextual variables are added in. In addition, several other factors emerged from the qualitative data that were not included in the EGRA dataset. These include a lack of interest among teachers, parents, and students for reading; a lack of training in the actual teaching of *reading skills* (as opposed to the current pre-service training of teaching general *language*); the prevalence of children not living with their parents; the amount of household responsibilities that a child has at home; and the provision of tutorial services at the school as important factors.

Respondents also discussed their ideas of a quality education. The majority echoed the literature discussed in chapter two and described quality as something complex and multifaceted. In chapter seven, I will explore the relationship between Phase I and Phase II findings and discuss their implication for overall educational quality

improvement in Ethiopia. I will also discuss how findings from both phases of this study demonstrate the efficacy of a mixed methods research design.

Chapter 7: What Does It All Mean?

Introduction

In this final chapter, I summarize the study, explore the relationship between Phase I and Phase II findings and discuss their implications for overall educational quality improvement in Ethiopia. This chapter also answers my final research question: *Given the answer to research question three [the factors associated with achievement that are most favorable and most challenging for literacy development], how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?* I explore how these findings have implications for three important areas in the study of education: theory, research, and policy and practice. Finally, I conclude with suggestions for future research.

Summarizing the Study

The current state of educational quality in the developing world, as measured by various assessments of student cognitive skills, is poor. As greater focus and resources continue to shift to improving educational quality through the mastery of basic literacy skills, we are left wondering how literacy fits into the larger conceptual puzzle of educational quality. This study has explored the current state of early grade reading skills as a step towards improving educational quality in Ethiopia. The purpose of this mixed methods sequential explanatory study was twofold: first, to critically examine the state of literacy in Ethiopia and second, to explore the use of literacy development as an educational quality improvement initiative.

Connecting to the Theoretical Framework

The first phase of this study includes an in-depth statistical analysis of the only existing data on early literacy skills in Ethiopia. But to avoid the reductionist tendency to rely on limited and most-easily measurable quantitative variables and linear analysis alone to explore a phenomenon, I was guided by frameworks drawn from critical theory, including the New Literacy Studies (NLS) and cultural historical activity theory (CHAT), to supplement the quantitative EGRA data with qualitative data collected from purposively selected schools through interviews and focus group discussions with parents, teachers, administrators, and other various education sector stakeholders. These frameworks claim that literacy activities happen across the multiple and dynamic landscapes of school, home, community, work, and play. Barton and Hamilton (1998) suggest:

Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people's heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people (p. 3).

These frameworks also view literacy as a social practice that cannot be reduced down to a set of neutral or technical skills as it has been traditionally perceived and is reemerging in the latest discourse on quality of education.

These assertions established the need to further investigate how the EGRA data pointed to literacy *activities* across in-school and out-of-school environments. To do this, I departed from NLS' widely utilized ethnographic approach, and employed a mixed-

methods design to attain a broader, more holistic understanding of literacy in Ethiopia that analyzes empirical quantitative and qualitative data using both linear and nonlinear techniques. I argue that this approach is actually aligned with NLS' spirit of exploring phenomena from a variety of perspectives and sources of information. Furthermore, many quantitative studies that utilize linear techniques like regression analysis are able to highlight interesting relationships between variables, but they are limited in exploring how these variables are experienced and practiced in everyday life. As such, based on the results of my analysis of the EGRA dataset, I collected qualitative data from each category of predictor variables (in-school and out-of-school variables) to explore further how those variables are *experienced*. Just as a more holistic viewpoint of both the practice of literacy itself and the relationship between literacy and educational quality is required to compensate for the current reductionist approach to both concepts, a more holistic mixed-methods research design was also necessary to fully explore these relationships.

Revisiting the Research Questions

My first research question was: *According to the Ethiopia Early Grade Reading Assessment dataset in the Addis Ababa region, what contextual factors affect achievement in basic literacy skills and how are they related?* The EGRA dataset contains a rich selection of contextual variables relevant to modeling the relationship between environmental context, family, school environment, and student to literacy practice. To further unpack these variables, I explored my next research question from a different, qualitative perspective: *According to qualitative data, how do parents' and teachers' perspectives explain and substantiate the contextual factors identified in the*

EGRA dataset and do other factors emerge? I asked this research question to better understand the relationships between context, family, school environment, and student and to further determine what variables might be missing from the EGRA dataset. In follow-up to the answers to my first two research questions, I asked a third question: *Given the answers to the first two research questions, what are the factors associated with achievement that are most favorable and most challenging for literacy development?* This question delves into parents', teachers', administrators', and policy makers' opinions on how the associated factors present opportunities and challenges for developing literacy in Ethiopia. My final research question took the answer to the third one step further by investigating how literacy development fits into the overall understanding of educational quality in Ethiopia: *Given the answer to the third research question, how can interventions for literacy development be best implemented in relationship to overall educational quality improvement?*

Key Findings

This section reviews the key findings from each research question and explores how the two phases of this sequential explanatory mixed methods study are complementary.

Phase I: Research Question One

In the first phase of this study, I analyzed the quantitative EGRA data to critically examine the current state of early literacy development in Ethiopia. The EGRA scores in Ethiopia indicate that a vast majority of students are not performing at the expected levels. Many children are unable to read a single word, even after Grade 3. Even fewer comprehend what they read. While Addis Ababa is the highest scoring region in Ethiopia,

it still faces serious problems in reaching its reading achievement goals. In contrast to the rest of the country, the gaps by gender are modest. Higher scores are skewed toward three sub-tasks assessed on the EGRA: fidel naming, oral reading fluency, and listening comprehension. It appears that the average Grade 2 child is 60% of the way to the fidel naming benchmark, and Grade 3 children are 80% of the way there. Similarly, Grade 2 and Grade 3 children are 60% and 80%, respectively, of the way to the benchmark for oral reading fluency. The scores are much more modest, though, for decoding (40% on average for all groups) and reading comprehension (40% for Grade 2 and nearly 60% for Grade 3).

Multiple regression analyses of various predictor variables highlighted their effect on the dependent outcome variables of oral reading fluency and reading comprehension. The results from the three multiple regression analysis models suggest that both in-school and out-of-school variables indeed have an important influence on both students' reading comprehension scores and oral reading fluency scores. These effects hold even after students' additional contextual variables (both in- and out-of-school) are taken into account. When compared against one another, the reading comprehension and oral fluency models share some similarities, yet also contain some differences. Holding all else constant at an $\alpha = 0.05$ level, the grade level of the student, the level of school infrastructure, the frequency of the school director's teacher observations, the level of father support, whether the mother tongue matches the language of instruction (in five out of six models), and in four out of six models whether siblings helped with homework all had an effect on student achievement in both reading comprehension and oral reading fluency. Whether the student's siblings helped with homework, absenteeism (only

significant in the reading comprehension model), SES Transport (only significant in the oral reading fluency model), and the use of time in the school (whether the school was closed outside of holidays whether the classrooms were shift; only significant in the oral reading fluency model) all had a *negative* effect on achievement on the dependent variables. Other predictor variables were significant in one model, but not another, depicting the complex relationship of variables to one another in a model, as well as the differences between reading comprehension and oral reading fluency.

The significant effect of the grade of the student in the regression model is straightforward: the higher the grade, the more time and opportunity the student has had to develop reading skills. The significant effects of other variables, however, are open to interpretation. As discussed in chapter five, socioeconomic status is typically an important predictor of literacy skills. While SES is not directly measured and included as a variable in the EGRA dataset, several possible proxy indicators are. In all models, the school infrastructure variable (a composite of electricity, water, and separate girls' bathrooms in the school) is a significant predictor; the better the level of school infrastructure, the better the achievement. However, it is not the water itself that likely improves performance, but rather that the presence of these amenities reflects a higher level of community affluence. Furthermore, in government primary schools in Ethiopia, school infrastructure also represents the amount of money that families from the surrounding communities are able to donate to the school for improvements. Other significant variables could also serve as proxies for SES including: fathers' support which implies that the father has the dispensible time and freedom away from his work to spend on his childrens' education; the sub-city within the Addis Ababa region, which implies

the relative wealth of that particular community; whether the school has sufficient language textbooks and whether the families can provide reading materials at home, indicating that the school and family can direct dispensible resources to educational materials above and beyond basic needs; transportation, which might indicate how much dispensible income the family has and how it is spent as it was a negative predictor in the oral reading fluency model; and how the school uses time, implying that the school is resilient enough to environmental challenges (such as agricultural production cycles or insufficient human resources) to devote to ensuring the availability of school time. While each of these variables can be interpreted differently in their own right, they are important proxies for the larger socioeconomic challenges that students and families face.

The role of being female had a significant positive effect on achievement in the reading comprehension model. In the qualitative data, parents and teachers discussed how traditional gender roles are changing in Addis Ababa and old ideas of the girl as inferior are fading away. While it cannot be causally linked, perhaps these data show that the advocacy efforts of Ethiopian government and international organizations to empower the girl are showing positive results. However, the role of gender in terms of the mother is still problematic. Mothers' literacy level and help with homework did not have a significant effect, whether positive or negative. This may be attributed to the pervasive patriarchal structure of the family in much of Ethiopia. Interestingly, another key player in family dynamics – the sibling – also had a significant effect on achievement, but the effect of their help with homework was negative. It could be surmised that the students who needed help with homework and sought help from siblings were those with poor existing skills. Alternatively, one could propose that siblings, who are also subject to the

same poor instruction and socioeconomic challenges, could not provide the quality of support that the student needed. The various roles of gender and the family in Addis Ababa should be explored more deeply in further research.

The importance of the mother tongue matching the language of instruction also had a significant effect on achievement in both models. It is well established that children learn best in their mother tongue and Ethiopia has one of the most progressive policies in sub-Saharan Africa with respect to language of instruction (Piper, 2010). Due to the large number of languages in Ethiopia however (over eighty), the policy cannot be comprehensive. Addis Ababa, which uses Amharic as the language of instruction, is surrounded geographically by the Oromiya region where Afan Oromo is the native tongue. It was repeatedly raised that because of this administrative geographic boundary, many students are learning in a language other than their native tongue. Despite its progressive policy, Ethiopia must work to ensure the broader coverage of students learning in their native tongue.

The significant effect of the school director's observation on teachers in the classroom was also shared across models. This is striking when explored with the fact that no variables on teacher quality were significant predictors. Again, while it cannot be causally linked, this may be due to the hierarchical structure of Ethiopian institutions which emphasizes the importance of the higher levels of leadership. Alternatively, this may also indicate that the level of instruction provided by teachers is not the main mode of literacy development in students in Ethiopia. Perhaps students are developing their reading skills in greater relationship to the other factors mentioned than their teachers.

In sum, despite a number of inherent methodological problems with the use of multiple regression analysis, the comparative results from a number of different models displayed a complicated picture of the relationships between in-school and out-of-school contextual factors and the reading outcomes of oral reading fluency and reading comprehension. No one model can ever perfectly fit the data, nor can the data at hand ever perfectly reflect the reality of the Ethiopian classroom and the life of the Ethiopian student. As a result, the findings from Phase II's qualitative data collected from parents, teachers, students, and education sector stakeholders further explain those factors that affect achievement of early literacy skills.

Phase II: Research Questions Two, Three, and Four

In the second phase of this study, I collected and analyzed qualitative data to explore the experience of parents, students, teachers, and administrators as it relates to literacy development of young learners in Ethiopia. The purposively selected primary schools, low scoring Fitwrari Abayneh and high scoring Fitwrari Habte Giorgis, share several key similarities. Both schools shared similar challenges that plague the broader Ethiopian education system including: lack of qualified teachers and learning resources in the school, parental inability and unwillingness to support their children's education, socioeconomic hardships, a mismatch between mother tongue and language of instruction, and general interest in reading. These are core problems shared between both Abayneh and Giorgis.

However, some subtle differences emerged between the lower scoring Abayneh and the higher scoring Giorgis. As noted, the most commonly cited factor in the qualitative data affecting achievement is that of family support to the student at home.

Abayneh teachers and administrators made marked efforts to address the role of the family at school, and on the whole, the relationship between the school and family is different at Abayneh than at Giorgis. At Abayneh, teachers and the school directors established a higher level of accountability of the parents to attend to their children's behavior and performance in school. The school took on more responsibility as well in addressing the gaps (through tutorial services, for example) and educating the parents themselves in what their role should be.

But it appears that if parental capacity and willingness is low and the home environment is detrimental to learning, the school's efforts may be futile, at least in the short term. Indeed, the out of school factors that students face at Abayneh were more evident than those at Giorgis. At Abayneh, teachers and parents more frequently noted that parents were unable to support their children at home because of their insufficient skills and the prevalence of children living with extended family rather than their parents is high. This is confirmed in the EGRA data that indicate that parental literacy and help with homework is lower than at Giorgis. Associated challenges of increased household responsibilities and lack of awareness about the child's education are also higher. Moreover, the lack of interest in reading and education was also more frequently discussed at Abayneh. Additionally, at Abayneh, a school located more squarely in the Afan Oromo-speaking outskirts of Addis, parents, teachers, and administrators reported more students' mother tongue did not match the language of instruction. Even the distinctly improved student to teacher ratio at Abayneh, a commonly cited indicator of quality education, did not mitigate these effects.

The second phase of this mixed methods study revealed several important findings above and beyond those identified in the EGRA dataset in Phase I. First, the findings from both Phase I and Phase II emphasize the importance of student background variables. The child's grade, the relative wealth of his/her community (measured through the School Infrastructure factor), and whether he/she repeated a grade were significant predictors of both reading comprehension and oral reading fluency. Regression analyses for both dependent variables also indicated that different aspects of the home environment were important, namely the literacy level and support of the father, the availability of reading materials at home, whether siblings help with homework, and whether the mother tongue matches the language of instruction. However, the importance of the out-of-school environment to both the teachers and parents was underestimated in Phase I.

As noted in chapter two, the work of theorists like Paulo Freire highlights the complex relationships that exist between families and their home and school environments. Additionally, as we saw in the qualitative data, the politics of power also impact how families conceptualize their role and the role of the school in their children's education. Parents took a bulk of the responsibility of their children's performance in school as their own and were generally reluctant to criticize the school, as the school is an extension of the Ethiopian government. State institutions (including the school) yield considerable power over the individual. Many school-based interventions operate on an implicit assumption that the school can "level the playing field" for students who come from disadvantaged home and community environments. However, the data from this study contradict this hypothesis, as the many variables measuring various in-school

factors like teacher qualifications, teacher training, teaching experience, pedagogical techniques, and school material resources did not emerge as significant predictors of achievement.

The only school-based predictors that emerged in the data were the support that the school director was able to provide to the teacher in teaching reading and how the school made use of its time, in regard to frequency of school closings and shift classrooms. In interventions like EGRA however, the focus is on how school inputs can result in improved reading skills. Addressing the home realities may be perceived as misplaced and irrelevant to EGRA's goals and they are generally viewed as an obstacle to overcome. As is clear from this study, ignoring the home environment is problematic both in regard to its effect on achievement and in relationship to the power structures that dictate the individual's difficulty in criticizing or providing input into how the school can respond to the needs of the children.

Respondents in Phase II also noted the importance of the combination of both in-school and out-of-school variables like mother tongue, the availability of reading materials, whether the student had access to pre-primary education, and the community's socioeconomic status. This is in concordance with the results from the EGRA data which model combinations of both types of predictor variables, except that in the three multiple regression models, the relative weights of these variables change when other contextual variables are added in. Thus, various models could be proposed that support or contradict a number of different expected outcomes.

In addition, several other factors emerged from the qualitative data that were not included in the EGRA dataset. These include a lack of interest among teachers, parents,

extended families and caregivers, and students for reading; a lack of training in the actual teaching of *reading skills* (as opposed to the current pre-service training of teaching general *language*); the prevalence of children not living with their parents but instead with extended families or caregivers; the amount of household responsibilities that a child has at home; and the provision of tutorial services at the school as important factors. It is possible that had these factors been included in the EGRA dataset, the extent of model misspecification could be smaller and a greater amount of variance explained.

Findings from both the quantitative and qualitative data indicate that instances of literacy activities occur in multiple environments. In school, ill-equipped teachers are navigating challenging environments to introduce their students to letters and texts. Schools struggle to provide language textbooks and extra reading materials to their students. To varying degrees of success, parents and siblings help their children with their homework. Some are able to provide them with extra reading materials. Living on the outskirts of Addis Ababa, children in this study have greater access to texts such as signs, newspapers, etc., than their peers in rural areas. Literacy activities happen in all these areas, not just in school.

Furthermore, the current discourse on literacy assumes that reading skills in first or second languages (or even third or fourth) will be learned if proper instruction happens. This study has showed that even while controlling for both in-school and out-of-school factors, the proxies for good instruction (teacher training and teacher qualifications) did not predict achievement in either reading comprehension or oral reading fluency. In the qualitative data, teachers and parents note that the role of the teachers' training (specifically in teaching reading) is important, but is also one of the

many factors that lead to achievement. To overemphasize the role of the teacher and school and ignore the importance of the many out-of-school environmental factors on achievement of early literacy skills is at best a miscalculation and at worst detrimental to a child's future. Nordtveit (2008), in his study on non-formal and early childhood literacy programs in Senegal, notes the importance of the concept of 'family literacy'. This term has been used to describe the interaction between parents and children in education and two types of family literacy can be differentiated: one is an informal and spontaneous interaction between parents and children, and the other is a formal interaction stimulated by an outside intervention (Nordtveit, 2008). Expanding the concept of literacy to include the family in any theoretical model is necessary.

Furthermore, my data showed that the linkages between reading skills, literacy, and quality are clear. Literacy is an indispensable component of the many that comprise a quality education. Reading skills are critical for developing literacy. However, the achievement of reading skills is to literacy what literacy is to quality: only a small element of the broader phenomenon. Figure 12 below displays this relationship.

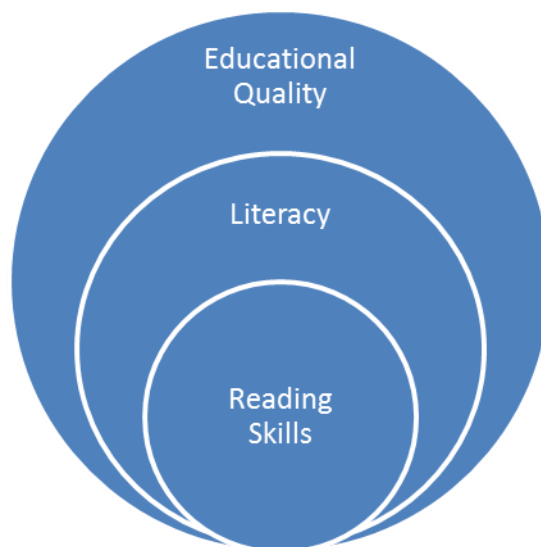


Figure 12 - Relationship between Reading Skills, Literacy, and Educational Quality

Upon reflection of the literature and findings in this study, I would continue to define quality as a much broader concept than that purported in interventions like EGRA. My definition of a quality education borrows from “EdQual”, a research consortium on implementing educational quality in low income countries based at the University of Bristol. A quality education is one that engages both the human capital and human rights approaches, one in which all learners develop the capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies, and enhance wellbeing. Interventions like EGRA only work on one aspect of quality, namely the human capital aspect by attempting to improve basic cognitive skills to see returns in economic growth, yet this is the approach increasingly adopted by international donor agencies and national governments worldwide to improve “quality.” Moreover, by aiming to improve basic cognitive skills primarily through school-based interventions, EGRA only addresses very limited aspects of cognitive skills development and literacy. While EGRA has a place in the educational development agenda to improve instructional practices in reading skills, calling it a “quality improvement” program threatens to undermine efforts to develop other critical aspects of human development.

Implications for Educational Research

The findings from this study have implications for the nature of educational research. First, the presentation of three plausible multiple regression models in chapter five for each dependent variable implies that no model will ever be “optimal” or “perfect”. As each predictor is added, the significance of other predictors change and the overall significance of the model changes. Essentially, the fit of the model varies in

relationship to variables contained within it. When there are many variables to choose from, this can present methodological and theoretical challenges in selecting the “optimal” model. Since there were 105 variables from which to select in the EGRA data, this study characterizes that challenge.

Second, the fact that new in-school and out-of-school variables emerged from the qualitative data indicates that the quantitative data were not sufficient to fully explore the phenomenon at hand. Indeed, one limitation of multiple regression analysis is the inevitable exclusion of variables that could possibly explain more of the variance in the dependent variables had they been measured and included in the dataset. As discussed, no dataset is perfect. No dataset contains every possible variable that will have an effect on the dependent variable, thus model misspecification is inevitable. Many variables were also potentially not measured or were measured with error, or perhaps unknown. Furthermore, with large data sets, it is relatively easy to find significant variables of interest, so researchers have the ability to massage the data according to their interests. Simply put, these misspecification challenges are inherent in using multiple regression analysis as research tool.

Klees (2008) sums up my exact reflection on Phase I of this study:

This dismal conclusion that the major social science tool for empirical research may be a dead end is demonstrable in all its uses. Perhaps the second most common use of regression analysis is in education, where it is used to estimate what are called educational production or input-output functions. The dependent variable usually studied is the score on some achievement test. The three conditions for proper specification are again impossible to fulfill. First, the array

of potential independent variables is huge, including, for example, socioeconomic status, gender, race, ethnicity, age, homework effort, computer use in the home, previous learning, ability, motivation, aspiration, peer characteristics, teacher degree level, teacher practices, teacher ability, teacher experience, class size, school climate, principal characteristics, and curriculum policies, to name a few. Second, there is no agreement on how to measure most, if not all, of these variables. Third, again the possible functional interrelationships are innumerable. Contrary to the linear formulation usually run, recursive and simultaneous equation formulations with an array of interaction terms among the independent variables have been posited but little used.

The problem of course, is that regression, for the reasons noted above and as demonstrated in chapter five of this study, cannot fully specify or unpack the causal relationships underlying the associations between variables. Klees' conclusion is that if we are interested in looking at quantitative data, we may be limited to analyzing cross-tabulations and correlations.

I was aware of these potential challenges during the design of this study and as a result, I decided to use the sequential explanatory mixed methods design to collect and analyze the most comprehensive data possible. Upon reflection of my Phase I quantitative data analysis, it was the correct design. If I had not followed up and collected qualitative data in purposively selected schools, I would not have understood the relative importance of significant variables to the stakeholders who experience them on a daily basis. This is critical as these are the exact people whose knowledge, attitudes, and behavior one attempts to alter through literacy and educational quality improvement

initiatives. Furthermore, if I had not collected follow up data, I would not have discovered other unexplored, yet important variables that stakeholders claimed affect literacy development. This is also critical as the regression analyses results only explain a small amount of the variance in student achievement.

While the case for collecting follow up qualitative data is arguably simple to make, I also posit that the further analysis of the EGRA data was critical to the study for two reasons. First, the EGRA data is being used to make policy decisions and justify international foreign aid funding. As described in chapter five, the initial EGRA analyses were limited. Further analysis was critical to examine the relationships between variables and what variables affect achievement in reading comprehension, as well as oral reading fluency. The findings are different between oral reading fluency and reading comprehension and warrant further study. Second, the results of the multiple regression analyses demonstrated that the reality facing students in early primary schools in Addis Ababa is extremely complex. While the models could not be fully specified, the regression analyses did display pictures of the magnitude and direction of the effect of the included predictor variables on the reading comprehension and oral reading fluency outcomes. This information was useful to get an overall sense of the relative importance of in-school and out-of-school factors.

As such, the design of this study attempted to maximize the strengths and minimize the weaknesses of quantitative and qualitative data collection and analysis. But as Yoshikawa et al (2008) suggest, this goes beyond the value of triangulation where the researcher pulls data from a variety of sources and methods to achieve convergence on a particular finding. The value of this type of mixed methods research is that the

combination of data types – of words and numbers – can elucidate the complexity of the phenomenon at hand. Indeed, as indicated above, the use of the sequential explanatory mixed methods design provided a clearer picture of the complex myriad of variables affecting literacy achievement. The mixed methods approach balances the strengths and weaknesses of different types of data by allowing the researcher to choose the combination of methods to best answer the research question. Johnson and Onwuegbuzie (2004) note that this approach is a natural philosophical partner of pragmatism, or the balance of dualisms. This study provides evidence for the utility of such designs when examining the complex conceptual issues that are regularly researched and funded through improvement interventions.

Implications for Theory

As noted in the previous section, the data presented in Phase I and Phase II of this study emphasized the importance of both in-school and out-of-school factors in predicting achievement of early literacy skills. The importance of out-of-school factors, namely the home environment of the child, was strongly emphasized in the qualitative data beyond what was indicated in the quantitative data. Additionally, other factors emerged in the qualitative data that parents, teachers, and administrators felt were important for literacy skills achievement.

These findings confirm the relevance of the literature presented in chapter three of this study. The usefulness of CHAT, in particular, is that it leads to a new perspective on what is educationally relevant. The unit of analysis in CHAT is the activity itself which contains inherently dialectic relationships between persons and societal wholes which allows the analysis to spread across social and material environments and be mediated by

a range of actors in a given context. As discussed in chapters five and six, sole focus on the achievement of the individual without full consideration of their lived experience and the experiences of stakeholders that represent various levels of the environment underestimate the scope and complexity of the issue. This perspective shares much in common with other sociocultural critiques and problematizes analyses that limit knowledge to something discrete or acquired by individuals.

As discussed, literacy is aptly characterized by CHAT. As Hull and Schulz (2001) note, there is a widespread desire of late to extend beyond a focus on the individual person as a unit for educational and psychological analysis. Conceptualizing literacy as an activity, or a practice, allows us to get around the false dichotomy of the interior mental and external materials worlds. Similarly, when we move beyond the idea that literacy skills are objective “things” to be obtained, we can realize that variance in the achievement of literacy skills cannot be easily explained by one or another isolated factor. Indeed, as the findings from chapters five and six demonstrated, the interrelated factors of relative importance vary immensely. As Mundy (1993) also concludes, it can be deduced that when viewed from such a holistic perspective that few positive, linear conclusions about literacy development can be drawn.

But this relationship between literacy and quality is perhaps better described with complexity theory. Complexity theory originally emerged from the fields of physics, biology, chemistry and economics, and arises in some senses out of chaos theory. Complexity theory has been applied in the social sciences to describe larger systems by focusing on the complex whole and the relationships between the parts, in contrast to more reductionist approaches (critiqued throughout this study) that focus on the

individual parts of a system. We can use this idea to describe the education system as a complex whole, which in practice, cannot be broken down in bits to one input or another. In complexity theory, the parts of a system do not act in isolation, nor does a system as a whole act in isolation. Factors of culture, society, ethnicity, religion, language, political forces, and so on, all play a role. Nordtveit (2010) cites an example of an educational intervention in which newspapers are produced by and introduced into local communities to increase the availability of reading materials for the purpose of literacy development. Complexity theory would tell us that such an intervention may have a positive effect in one place and a negative effect in another. In some cases, the intervention may have no effect or may even be counterproductive. No matter what, the way that a factor will interact with others within a system largely depends on its initial condition.

Despite the fact that complexity theory is descriptive and not normative, some tenets of the theory can be used to generate suggestions for change in an educational system. Mason (2008) notes that:

...complexity theory suggests, in other words, that what it might take to change a school's inertial momentum from an ethos of failure is massive and sustained intervention at every possible level until the phenomenon of learning excellence emerges from this new set of interactions among these new factors, and sustains itself autocatalytically (p.7).

This position is clearly echoed in some of the qualitative data I collected to answer my fourth research question about how best to implement interventions for literacy development and quality improvement. One response bears repeating in this section:

Why it's so difficult to achieve quality is because it is so multi-faceted, and if you're not addressing all of the integrated factors that contribute to either a good quality education system or a bad one, I think it's hard to argue that any of those individual inputs that you making are going to have much impact. So, you either do everything in a sense or you do nothing.

Mason, in his 2008 article, agrees. He notes that complexity theory implies that if change on a systemic level is to happen, then change at every possible level within the system must happen as a prerequisite. Indeed, if an effort for change has failed, it may be because the interactions between factors in a system have been insufficient to instigate larger scale improvements.

Implications for Policy and Practice

The findings from this study have several policy and practice implications that are insinuated in the previous sections. First, on the systemic level, Nordtveit and Mason hint that any literacy or quality improvement intervention must address as many levels of the system as possible, as holistically as possible. Frequently, education interventions are criticized for utilizing pre-packaged solutions that only address one or two aspects of a problem, and often with little to no research on the cultural appropriateness of said intervention. Moreover, such interventions are rarely integrated with other programs in other sectors like health or agriculture. As it relates to Ethiopia, the GEQIP is indeed a quality improvement program that does address quality at multiple levels of the system. However, as discussed in chapter three, the way that GEQIP defines its success through inputs and outputs limits its applicability to address the many factors that are present at all levels of the education system.

Second, at the micro level, several recommendations for specific interventions can be made. Most development interventions place an excessive level of responsibility on the teacher. This approach overlooks the relationships between various in-school and out-of-school factors and has resulted in approaches to educational development that have relied on established modes of in-service cascade style teacher training. A master trainer (usually an instructor at a teacher training college) is trained in the content who then delivers massive trainings to selected in-service teachers who are then expected to both implement this knowledge in the classroom and share it with their colleagues. While the massive numbers of teachers trained in a development intervention look impressive to donor communities, this model breaks down at a number of points along the way. As demonstrated in chapters five and six, the teacher is not the only important factor in educational achievement and should not be treated as such. Furthermore, instead of making massive assumptions about how such knowledge is transmitted and how change is effected at the classroom, when teacher professional development is the priority, it should shift to pre-service stage where there is greater opportunity to reach more teachers *before* they have even begun their practice.

Because of the complex relationships between factors, too much focus on one type of factor will not result in expected impacts. Findings in chapter five noted the importance of leadership at the school. Perhaps this is the first place to start intervening at the school level (in conjunction with out-of-school interventions) to affect change in schools. The school director's leadership affects the whole network of teachers at the school, which may have a larger effect than a one-off training for a few individual teachers.

Assessments such as EGRA, and the recommended interventions based on its results, have frequently discounted the appreciable effect contextual challenges have on student achievement and instead focus on targeted inputs at the school level. The reliance on quick, easy fixes that only address one or two factors of a larger systemic problem will continue to result in education systems that produce students who are not learning.

Contributions and Further Research

Through its many implications, this study has also generated several suggestions for further research. One recommendation for further research is how to better shape out-of-school contexts in any educational quality improvement initiative. As noted in the above sections, the implications of my research indicate that too much expectation is placed on the teacher, especially when the school is unable to mitigate the powerful effects of out-of-school contexts. Further research should also explore why variables predict achievement in oral reading fluency and in reading comprehension differently. Investigating these effects could provide stronger recommendations on how to improve different aspects of literacy. Another area of future research would be to use CHAT and complexity theory as a mode of analysis with similar data. While this study relied on these theories as frameworks, much more could be discovered about the relationships between factors within in- and out-of-school environments if explored in depth with model-building as the goal. A third, related suggestion for further research is to explore in further detail the “how” of connecting in-school and out-of-school contexts in a context like Ethiopia. This would require a more emic, qualitative approach that this study’s design did not allow.

As proposed in chapter one, the findings from this study achieved two goals: (1) to uncover a more holistic picture of how early literacy is experienced in Ethiopia; and (2) to explore how different types of data and methods may uncover different, yet complementary findings that provide deeper insight than one type or method alone. This study provides a responsive, critical theoretical grounding for understanding conflicting perspectives, policies, and approaches to improving the quality of education through literacy development. In sum, this study demonstrated the utility of a mixed-methods approach to explore more holistically the practice of literacy in Ethiopia and its relationships to the pursuit of educational quality more broadly.

APPENDICES

Appendix A: EGRA Instrument



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 አግርኛ

አጠቃላይ መመሪያ:

በትደሚያ ህፃን ከሚፈለጉት/ከሚወዳቸው ርዕሰ ጉዳዮች ውስጥ በመምረጥ የግንቃቂያ/የመነሻ ተራክቦ በግድረግ (ለምሳሌ ተገቢ በላትን ውስጥ ያለውን ተመልክት/ች) ከሚገመገመው ህፃን ጋር ጨዋታ አዘልና አዝናኝ ግንኙነት መመሥረት በግም አስፈላጊ ነው።

ቃላዊ ስምምነት

እንደምን አደርክ/ሽ? እኔ ስሜ-----ይባላል። የምኖረው-----ውስጥ ነው። ስለራሴ ጥቂት ነገር ልነግርህ/ሽ እፈልጋለሁ። [የልጆች ቁጥርና ዕድሜ፣ ስለሌሎች የቤት እንስሳት፣ ስለሌሎች ጭቃዎች ወዘተ.]
 1. ስለእንተና/ስለእንቸና ስለቤተሰብህ/ሽ ልትነግረኝ/ሪኝ ትችላለህ/ያለሽ? [ምሳሻቸውን መጠበቅ፣ ተግባራዊ የሚያመነታ/የምታመነታ ከሆነ ጥያቄ 2 ን መጠየቅ]
 2. ከትምህርት ቤት ውጪ ስትሆን/ኛ ምን መሥራት ትወዳለህ/ትወጃለሽ? ...

- ዛሬ ለምን እዚህ እንደመጣሁ ልነግርህ/ሽ። እኔ የመጣሁት ከትምህርት ሚኒስቴር ነው። ህፃናት ግንባብን እንዲያቀርቡ ለመረዳት/ለግዴታ ጥረት እያደረግን ነው። እንተም/አንቺም ለዚህ ተግባር የተመረጠኩ/ሽው በዕጣ ነው።
- እሁን ያንተን/ያንቺን ትብብር እንፈልጋለን። ነገር ግን ፈቃደኛ ካልሆንክ/ሽ አለመሳተፍ ትችላለህ/ያለሽ።
- እሺ፣ እሁን የገባብ ጨዋታ አብረን እንጫወታለን። ከዚህ በመተማመን ፈጠራዎችን፣ ቃላቶችንና አጭር ታሪክ እንድታነብህ/ሽ እጠይቅሃለሁ/ሻለሁ።
- ገባቡ ምን ያህል ጊዜ እንደወሰደህ/ሽም ለግዴታ ይኼን የመቆጣጠሪያ ሰዓት እጠቀማለሁ።
- ይኼ ፈተና እይደለም። በትምህርት ቤት የምታገኘውን/ኛውንም ውጤት እይነክም።
- ከዚህ በተጨማሪ ስለቤተሰቦችህ/ሽ - ለምሳሌ በቤት ውስጥ ምን ዓይነት ቋንቋ እንደሚጠቀሙ፣ በቤት ውስጥ ሰላላቸው ገብረት ወዘተ. - እጠይቅሃለሁ/ሻለሁ።
- እሁንም በድጋሚ የምገልጽሃለሁ/ሽ ፍላጎት ከሌለህ/ሽ መሳተፍ የለብህም/ሽም፣ በተጨማሪም የሚቀርቡልህን/ሽን ጥያቄዎች ባትመልስ/ሽ እትፍራ/ሪ፣ ምንም ችግር የለም።
- ጥያቄዎች እሉህ/ሽ? ለመጀመር ተዘጋጅተሃል/ሻል?

ቃላዊ ስምምነት ከተገኘ በላትን ውስጥ ምልክት አድርግ/ሪ፤ እዎ (ምናልባት ቃላዊ ስምምነት ካልተገኘ ህፃኑን/ኛን አመሰግንህ/ሽ በተመሳሳይ ሁኔታ ወደሚቀጥለው/ወደምትቀጥለው ህፃን ተሻግር።)

ሀ. የገምገማው ቀን	ቀን-----ወር----- /2010
ለ. የገምገማው ስም	
ሐ. የት/ቤት ስም	
መ. ክልል	
ሠ. ወረዳ	
ረ. ፈረቃ	<input type="radio"/> 1 = ሙሉ ቀን <input type="radio"/> 2 = ጫት <input type="radio"/> 3 = ከሰዓት በኋላ
ሰ. ብዙ ክፍል አንድ ላይ?	<input type="radio"/> 0 = አይ <input type="radio"/> 1 = አዎ

፳. የትምህርት ስም	
በ. ክፍል	<input type="radio"/> 2 = 2ኛ <input type="radio"/> 3 = 3ኛ
ተ. ለየ ክፍል	
ሾ. የተግባራዊ መለያ ኮድ	
ገ. የተግባራዊ ዕድሜ	
ኘ. የተግባራዊ የታ	<input type="radio"/> 01 = ወንድ <input type="radio"/> 02 = ሴት
ሻ. የተጀመረበት ሰዓት



ክፍል 2. የታላቅን ረደል መለየት

ይህ መለጠጫ በጊዜያዊነት ይደረጋል። እናም የተግራው ገጽ የለም። ታላቅን ራስዎ ብለው ሁለት ጊዜ አንብብሉት/ላት። ከዚያም ተግራው/ዋ የታላቅን ረደሎች እንዲጠራ/እንድትጠራ አድርግ። “ረደሎቼን ብቻ” ናሙና ግድረግ እንዳለብህ አስታውሱ።

ይህ የግዳመት መለጠጫ ነው። የታላቅን ሁሉንም ረደሎች እንድትነገረኝ/ሪኝ? እፈልጋለሁ። ለምሳሌ፡ “አሁን” በሚለው ቃል ውስጥ የታላቅን ረደሎች “አሁን እና ይ” ናቸው። በዚህ መለጠጫ ውስጥ በያንዳንዱ ቃል ውስጥ ያዳመጥኩት/ቸውን ሁሉንም የታላቅን ረደሎች እንድትነገረኝ/ሪኝ? እፈልጋለሁ። እያንዳንዱን ቃል ሁለት ሁለት ጊዜ እጠራለሁ/ሻለሁ። ታላቅን አዳምጥ/ጩ። ከዚያም የታላቅን ሁሉንም ረደሎች ልብ በል/ዱ። እስኪ እንጠግመድ። “ውሻ” በሚለው ቃል ውስጥ የታላቅን ረደሎች እነማን ናቸው? “ውሻ” ለጅ/ቷ በትክክል ከመለሰ/ች በግም ጥሩ ነው በል። “ውሻ” በሚለው ቃል ውስጥ የታላቅን ረደሎች “ው እና ሻ” ናቸው። በል። ለጅ/ቷ በትክክል ካልመለሰ/ች እንደገና አዳምጥ/ጩ። “ውሻ” በሚለው ቃል ውስጥ የታላቅን ረደሎች “ው እና ሻ” ናቸው በል። ለሁን ደግሞ ሌላ እንጥክር። “ቤት” በሚለው ቃል የታላቅን ረደሎች እነማን ናቸው? “ቤት” ለጅ/ቷ በትክክል ከመለሰ/ች በግም ጥሩ ነው በል/ዱ። “ቤት” በሚለው ቃል ውስጥ የታላቅን ረደሎች “ቤ እና ት” ናቸው። ለጅ/ቷ በትክክል ካልመለሰ/ች እንደገና አዳምጥ/ጩ። “ቤት” በሚለው ቃል ውስጥ የታላቅን ረደሎች “ቤ እና ት” ናቸው በል። ለሁን ምን እንድትሰራ/ሰራ ገባህ/ሽ? ለጅ/ቷዋ ለልገባኝም ካለ/ች አስታውሱ/ሺ ያዳመጥኩት/ቸውን ቃላት ረደሎች ንገረኝ/ሪኝ። ጥክር/ሪ።

ታላቅን አንብብህ ከዚያም መልሱን ታላቅን ለሁለተኛ ጊዜ አንብብ። በትክክል የጠራውን/ችውን ብቻ ተተብል። ለጅ/ቷ ረደሉን ለመጥራት ለሰባት ሰከንድ ያህል ካመነታ/ች ምላሽ የለም የሚል ምልክት አድርግ። ከዚያም የሚተላለፈውን ቃል በል። በሚገባ አንብብ እንጂ ረደሎቼ ላይ የተለየ ጫና አታድርግ። ከሰዓቱ ቀደም የግብዓት ሕግ፡ - ለጅ/ቷ የመጀመሪያዎቹን ለምስት ቃላት እንድትም በትክክል መመለስ ካልቻለ/ለች ወይም የተሳሳተ መልስ ከመለሰ/ች ‘አመሰግናለሁ’ ብለህ የመለጠጫውን ተግባር አድርግ። ከሰንጠረዥ ግርጌ ባለው ሳጥን ውስጥም ምልክት አድርግ። ከዚያም ወደተከታዩ ተግባር እለፍ።

“-----” በሚለው ቃል ውስጥ የሚገኙት ረደሎች እነማን ናቸው? “-----”? ታላቅን ሁለት ጊዜ ድንገጥ።

ገንቦ	/ገ-ገ-ቦ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ኅረምላ	/ኅ-ረ-ም-ላ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
አውራ	/አ-ው-ራ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
መጋሃ	/መ-ጋ-ሃ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ጥራጥራ	/ጥ-ራ-ጥ-ራ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ትርስ	/ት-ር-ስ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ወልጋዳ	/ወ-ል-ጋ-ዳ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ገምት	/ገ-ም-ት/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ጡረታ	/ጡ-ረ-ታ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም
ጋራግ	/ጋ-ራ-ግ/	0 ትክክል	0 ስህተት	0 አያውቅም/ታውቅም	0 ምላሽ የለም

ለጅ/ቷ የመጀመሪያዎቹን ለምስት ቃላት በትክክል ካልመለሰ/ች በዚህ ሳጥን ውስጥ ምልክት አድርግ

ጎበዝ ጥሩ ሰርተሃል/ሻል። ወደሚተላለፈው ክፍል እንሸጋገር።



ክፍል 3፡ - የተዘወተሩ ቃላት ንባብ

በመጽሐፉ ውስጥ የተዘወተሩ ቃላት ያለበትን ገጽ ለልጅ/ቷ ለሳይተህ/ሽ የሚከተለውን በል/ዪ፡፡

እዚህ ጥቂት ቃላት ተሰጥተዋል፡፡ እባክህ የምትችለውን/ችውን ያህል ቃላት እንብብ/ቢ (የቃላትን ፊደል ሙጥሬት ሳይሆን ፊደሎቹን እያይዘህ/ሽ ቃላትን እንብብ/ቢ፡፡) ለምሳሌ ይህ ቃል "ድመት" ተብሎ ይነበዛል፡፡
 እሳቱ እንደሚለው፡ የሚከተለውን ቃል እንብብ/ቢ [በተለ ወደግለው ቃል ለመልክት]
 ልጅ/ቷ በትክክል ከመለስ/ች ገበዝ! በል፡፡ ይህ ቃል በቀለ ነው፡፡
 ልጅ/ቷ በትክክል ካለመለስ/ች ይህ ቃል በቀለ ነው በል፡፡
 እሁን ደግሞ ሌላ እንጥክር፡፡ እሳቱ ይህን ቃል እንብብ/ቢ [ተመመ ወደግለው ቃል ለመልክት]
 ልጅ/ቷ በትክክል ከመለስ/ች ገበዝ! በል፡፡ ይህ ቃል ታመመ ነው፡፡
 ልጅ/ቷ በትክክል ካለመለስ/ች ይህ ቃል ታመመ ነው በል፡፡
 ጀምሮ/ሪ በላህ/ሽ የምትችለውን/ችውን ያህል በዋጥነትና በጥንቃቄ ቃላትን ታንባህ/ቢ ያለህ፡፡ በገዱ ላይ የተሰጡትን ቃላት ከመጀመሪያው በመጀመር ከግፊት ወደቀኝ እንብብ/ቢ፡፡ ድጋፍ እስካልፈለግህ/ሽ ድረስ ዝም ብዬ ነው የጥላምጥህ/ሽ፡፡ ምን እንደምትሰራ/ሪ እውቅህ/ሽ? ተዘጋጅህ/ሽ? እሺ ጀምሮ/ሪ፡፡

① ልጅ/ቷ የመጀመሪያውን ቃል ማንበብ እንደሚችል/ች መቆጣጠሪያ ሰዓትን አስጀምር፡፡ ከዚያም በሚያነሳቸው/ በምትነሳቸው በእያንዳንዱ ቃል እንጂ በእርሳስ እየጠቀምክ ተከተል፡፡ በትክክል ያሳነበው/ችው ቃል ካለ በቃሉ ላይ በዓልጽ የእነዛር (/) ምልክት አድርግ፡፡ በዚህ ሂደት ልጅ ወይም ልጅ ሰራተኛውን/ችውን/ችውን/ችውን እንደትክክል አድርገህ ውሰድ፡፡ ይህንን ልጅ/ቷ በራሱ/ቷ አስተካክሎ/ላ ያነበባቸውን/ቸውን/ችውን ቃላት እንደሰህተት ወሰደህ ምልክት ካደረግህበት ቃሉን ከበበውና ተጥል፡፡ ልጅ/ቷ በሚያነበበት/በምትነበበት ጊዜ እንዴት ቃል ለማንበብ ለሶስት ሰከንድ ያህል ካመነታ/ች ቃሉን ነግረህ/ሻት የሚተላለውን በማመልከት እሺ ቀጥል/ዪ ከምትል በስተቀር ምንም ነገር አትናገር፡፡ ዝም በል፡፡ በትክክል ሊያነብ/ላ ታነበብ ባለመቻሉ/ላ እንተ ለልጅ/ቷ የነገርከውን/ካትን ቃል ስህተት እንደሆነ በዓልጽ ምልክት ማድረግ አለብህ፡፡

ከ60 ሰከንድ በኋላ 'አቆም' በማለት ንባቡን አስቀምጥ፡፡ እናም መሠረቱ ግንባታው/ችው ቃል ላይ አራት ግዕዝ ቅንፍ] ምልክት አድርግ፡፡

ከሰዓቱ ቀደም የማስቀም ሕግ፡ - ልጅ/ቷ የመጀመሪያው ረድፍ ካሉት ቃላት አንድም ቃል በትክክል ካሳበበ/ች ወይም ለመጀመሪያው ረድፍ ካሉት ቃላት ምንም ምላሽ ካልሰጠ/ች 'አሰጥላለሁ' በላህ የንባቡን ተግባር አዳርጥ፡፡ ከሰንጠረዥ ግርጌ ባለው ላጥን ውስጥ ምልክት አድርግ፡፡ ከዚያም ወደተከተሉ ተግባር እለፍ፡፡

ድመት በቀለ ታመመ

ላይ	መልሱ	ወደ	ነው	ወይም	(5)
ምንድን	መስርቱ	በኋላ	የተለያዩ	ተማሪዎች	(10)
ሰው	ባለ	ውስጥ	በጣም	ቦታ	(15)
ነጥብ	ምን	ብቻ	በምንባቡ	ነበር	(20)
ነገሮች	መሰረት	በሽታ	ቤት	አለች	(25)
በማድረግ	ያሉትን	ሁለት	የሚከተሉትን	ጊዜ	(30)
ጥያቄዎች	መሠረት	መልመጃ	ይቻላል	ቃል	(35)
ሚርን	ልጅ	ያለ	ሆኗቸው	ጥሩ	(40)
እንዴት	ምሳሌ	የሚለው	መልሱ	ቃላት	(45)
አንድ	ሶስት	ናቸው	መካከል	ዮሐንስ	(50)

ንባቡ ሲጠናቀቅ በመቆጣጠሪያ ሰዓቱ ላይ የተረወ ጊዜ (ሰከንድ መጠን)
 ልጅ የመጀመሪያው ረድፍ ካሉት ቃላት በትክክል ያነበበው ከሌለ በዚህ ላጥን ውስጥ ምልክት አድርግ

ንባብ ጥሩ ስርተሃል/ሻል፡፡ ወደሚተላለው ክፍል እንሸጋገር፡፡



ክፍል 4. የፈጠራ ታላትን ግንባብ

በመጽሐፉ ውስጥ የፈጠራ ታላት ያለበትን ገጽ ለልጅ/ቷ ለሳይተሁ የሚከተለውን በልጅ/ቷ

እዚህ ጥቂት የፈጠራ ታላት ተሰጥተዋል። እባክህ የምትችለውን/ኛውን ያህል ታላት አንብብ/ቤ (የታላቱን ፈጠራ ማጠቃለያ ላይሆን ፈጠራውን ለያይዘህ ታላቱን አንብብ/ቤ) ለምሳሌ ይህ ታላት ለጊዜ ተቆይቶ ይሰጣል።
 እስከ እንለግጥ፡ የሚከተለውን ታላት አንብብ/ቤ [ገተለ ወደግለው ታላት ለመልክት]
 ለጅ/ቷ በትክክል ከመለስ/ች ገቢህ በል። ይህ ታላት ገተለ ነው።
 ለጅ/ቷ በትክክል ካለመለስ/ች ይህ ታላት ገተለ ነው በል።
 ለሁን ደግሞ ሌላ አንጥክር። እስከ ይህን ታላት አንብብ/ቤ [ጋራ ወደግለው ታላት ለመልክት]
 ለጅ/ቷ በትክክል ከመለስ/ች ጥሩ ነው በል። ይህ ታላት ጋራ ነው።
 ለጅ/ቷ በትክክል ካለመለስ/ች ይህ ታላት ጋራ ነው በል።
 ጆም/ሪ በላህ/ሽ የምትችለውን/ኛውን ያህል ታላቱን በፍጥነትና በጥንቃቄ ታንባላህ/ቤ ያለህ። በገጹ ላይ የተሰጡትን ታላት ከመጀመሪያው በመጀመር ከግራ ወደቀኝ አንብብ/ቤ። ድጋፍ እስካልፈለግህ/ሽ ድረስ ዝም ብሎ ነው የግጥም/ሽ። ምን እንደምትሰራ/ሪ እውቅህ/ሽ? ተዘጋጅህ/ሽ? ጆም/ሪ።

① ለጅ/ቷ የመጀመሪያውን ታላት ግንባብ እንደሚረዳ/ች ማጠቃለያ ሰዓቱን አስጀምር። ከዚያም በሚያንባቸው/በምታንባቸው በእያንዳንዱ ታላት ለንጹር በእርሳስ እየጠቀምክ ተከተል። በትክክል ያሳነበው/ችው ታላት ካለ በታላ ላይ በግልጽ የእዝባር (/) ምልክት አድርግ። በዚህ ሂደት ለጅ/ቷ ወዲያው በፊት/ቶ አስተካክሎ/ላ ያንባባቸውን/ያንባባቸውን እንደትክክል አድርገህ ውሰድ። ይህንኑ ለጅ/ቷ በፊት/ቶ አስተካክሎ/ላ ያንባባቸውን/ያንባባቸውን ታላት እንደሰሙት ወሰደህ ምልክት ካደረግህ/ሽ ታላት ከበበውና ተተል። ለጅ/ቷ በሚያንባቡት/በምታንባቡት ጊዜ ለንጹጥ ታላት ለግንባብ ለሰባት ሰባት ሰባት ካላውጣት/ች ታላት ነጻሪው/ሻት የሚተላለውን በማለት እጅ ተጥል/ሪ ከምትል በስተቀር ምንም ነገር አትናገር። ዝም በል። በትክክል ሊያንብ/ሉ ታንብብ ባለመቻሉ/ላ አንተ ለልጅ/ቷ የነገርከውን/ካትን ታላት ስህተት እንደሆነ በግልጽ ምልክት ግድረግ አለብህ።

ከ60 ሰከንድ በኋላ እቅድ በግለት ገባቡን አስቀም። እናም በመጨረሻ ግንባብ ታላት ላይ ለፊት ግልጽ ትንቢት ምልክት አድርግ።

ከሰዓቱ ቀደም የግለቆም ሕፃን - ለጅ/ቷ የመጀመሪያው ረድፍ ካለት ታላት አንድም ታላት በትክክል ካሳበበ/ች ወይም ለመጀመሪያው ሕፃን ታላት ምንም ምላሽ ካልሰጠ/ች 'እውቀት' በላህ የገባቡን ተግባር አቆርጥ። ከሰንጠረዥ ግርጌ ባለው ሳጥን ውስጥ ምልክት አድርግ። ከዚያም ወደተከተሉ ተግባር እለፍ።

ሰደብ	ገተለ	ጋወመ			
1	2	3	4	5	
ረሰበሰ	መነገበ	ሱዳ	ቃዲያ	ጋም	(5)
ግርዳ	ወታ	ታዶ	ሾርጭ	ግርጫ	(10)
ወደፈ	ደር	ሱዳሂ	ባገለ	ቃገተ	(15)
ቦሰ	ቡጭግ	ቻተረ	ቡጫ	የክል	(20)
ልርጫ	ቱም	ነሰገ	መኘክ	ፈገረ	(25)
በራመ	ለጥጥ	ገረበ	በቸቨ	ዘደረ	(30)
ወረቀ	ባገክ	አመር	ጀለፈ	ገጉብ	(35)
አዲጋ	ተቃ	ረደሰ	ወቸቀ	ግሩብ	(40)
ሲዶ	መደገ	ቀበ	ተመለ	ተመ	(45)
ከለፈ	ረሰደ	ቀነረ	ጋመነ	በለደ	(50)

ገባቡ ሲጠናቀቅ በመቆጣጠሪያ ሰዓቱ ላይ የተረው ጊዜ (ሰከንድ መጠን)

ለጅ በመጀመሪያው ረድፍ ካለት ታላት በትክክል ያነበበው ታላት ከሌለ በዚህ ሳጥን ውስጥ ምልክት አድርግ

ገባቡ ጥሩ ሰርተሃል/ሻል። ወደሚተላለው ክፍል እንሸገር።



ክፍል 5 ሀ. የቃል ገባብ

በመጽሐፍ ውስጥ የግንባታው ታሪክ ያለበትን ገጽ ለልጁ/ት እንዲይዙ/ሽ የግዘተውን ባል፡፡

ይህ አዋር ታሪክ ነው፡፡ ይህን ታሪክ ሮካ ባለሀብት በደግሞ በትክክል እንብራራለን/ባለን፡፡ እንብራራለን ስትጨርስ/ሽ ጥያቄዎች እንዲያስጡ/ሻለሁ፡፡ ምን ግድርን እንላለሁ/ሽ ገብተዋል/ሻልን? ለሽ ይምር/ሪሳል የምትችሉዎት/ችሩዎትን ያህል ታሪክን እንብራራለን/ባለን፡፡ ደጋፊ ካልላለሁ/ሽ በተር ህግ ብዬ ነው የግዳግጥህ/ሽ፡፡ ተዘጋጅህ/ሽ? ይምር/ሪ፡፡

ፀልጁ/ት የሚመረጡትን ቃል ግንባብ እንደሚመረጥ/ች መቆጣጠሪያ ሰዓትን አስይዙ፡፡ ከዚያም በግንባባቸው/በምትገቡበት በአያንዳንዱ ቃል እንዲሁ በአርባ አምስት ተከተለ፡፡ በትክክል ያሳያቸውን ቃል ካለ በቃሉ ላይ በግልጽ የአገገር (/) ምልክት አድርገው፡፡ በዚህ ሂደት ለጁ ወይም ለሌላ አስተካከሎ ያገባቸውን/ያችሁን እንደትክክል አድርገው ወሰዱ፡፡ ይህንና ለጁ/ት በራሱ/ሷ አስተካከሎ/ሳ ያገባቸውን ቃላት እንደሆኑት ወሰዱ ምልክት ካደረግሁት ቃሉን ከባቢው ቀጥሎ፡፡ ለጁ/ት በግንባባቸው/በምትገቡበት ጊዜ እንደን ቃል ለግንባብ ለሰጠን ሰዓት ያህል ካመነ/ች ቃሉን ነግረኸው/ሃች የግዘተውን በግመልክት እጂ ቀጥሎ/ሪ ከምትል በስተቀር ምን ነገር አትናገር ህግ ባል፡፡ በትክክል ሊያገቡ ባለሙያዎች ለገንጠል የነገሩትን ቃል ስህተት እንደሆነ በግልጽ ምልክት ግድርን አለሁ፡፡

ከ60 ሰዓት በኋላ 'አቆም' በግለት ገባብን አስተም፡፡ እኛም በመጨረሻ ባህሰው ቃል ላይ እራት ግዕዝ ትንቢት] ምልክት አድርገው፡፡

ከሰዓት ቀደም የግንባባዎ ለገጽ - ለጁ በሚመረጡ መስመር ካሉት ቃላት እንደም በትክክል ባለግንባብ/ሀ ምልክት ካደረግሁ 'አመሰግናለሁ' ብለህ የገባብን ተግባር አድርገው፡፡ ከሰዓት በፊት ገርገር ባለው ላጥን ውስጥ ምልክት አድርገው፡፡ ከዚያም ወደተከተሉ ተግባር ላለፍ፡፡

ክፍል 5 ለ. አገባብ መረጃት

የተረቀቀው 60 ሰዓት ሲያልፍ ወይም ለጁ/ት ምንግብን ከ60 ሰዓት ቀደም ግ ከጨረሱ/ች ምንግብን ከልጁ/ት ፊት አገኛ፡፡ ከዚያም ከዚህ በታች ካሉት ጥያቄዎች የሚመረጡትን ጥያቄ ወይን፡፡ መልሱን ለመመለስ ለልጁ/ት ቢበዛ 15 ሰዓት ስጡ፡፡ የልጁን/ትም መልስ በሰንጠረዥ ውስጥ ከተሰጡት ምልክት ውስጥ ግንድ ላይ ምልክት አድርገው፡፡ ከዚያም ወደግዘተው ጥያቄ ላለፍ፡፡

ልጁ/ት ግንባብ ያቆሙበትን/ችበትን ቦታ እስከግምላላው ትንቢት ድረስ የግመል ከትንቢት ጥያቄዎች ብቻ አንብቡ፡፡

አውን ለላባባቸው/ሽው ታሪክ ጥቂት ጥያቄዎች ለመይዘት/ሽ ነው፡፡ ጥያቄዎቹን በምትችሉዎት/ችሩዎት መጠን ለመመለስ ሞክር/ሪ፡፡			
	ትክክል	ስህተት	ምላሽ የለም
ለበበ አላገኘው ጋር በደብረሲና ከተማ ይኖራል፡፡ እናቱ አንድ ላም ነበረችቸው፡፡ አበበ ላላገኘውን ይጠብቃል፡፡ ከወተት ሽያጭ በግንገራ ገቢ እናቱ ተለብሶ ለአበበ ደብተር ይገባለታል፡፡ 22	የአበበ እናት የት ይኖራል? [ደብረ ሲና]		
አንድ ቀን አበበ ከጓደኞቹ ጋር ሲጫወት ላላገኘው ጠፋችበት፡፡ ከዚያ ሲፈልግ ቆይቶ ወደ ግታ ከአቶ ጌታቸው ለንዴ ግላ ውስጥ አገኛት፡፡ 41	የሰንዴ ግላው ባለቤት ግን ነው? [አቶ ጌታቸው]		
ደለ ብሎት ይቶ ሲመለስ በርተት አቶ ጌታቸው አዩት፡፡ በሩጫ ደረሰበት ፡፡ የሰንዴ ቡቃያው በመባላቱ ተቆጠ፡፡ አበበንና ላላገኘውን ይከው ወደ አበበ እናት ወሰዷቸው፡፡ 62	አቶ ጌታቸው አበበንና ላላገኘውን ወደአበበ እናት የወሰዷቸው ለምንድን ነው? [ለውተሳታታቸውን የሰንዴው ሰብል ለማስከፈል]		

ገባብ ሲጠናቀቅ በመቆጣጠሪያ ሰዓት ላይ የተረፈ ጊዜ (ሰዓት መጠን) ለጁ/ት የሚመረጡትን መሰጠር በትክክል ካላገባቸው/ች በላጥን ውስጥ ምልክት አድርገው ደርግ

ገባቢ ጥሩ ሰርተፍ/ሻል፡፡ ወደግዘተው ክፍል እንሸጋገር፡፡





ክፍል 6. አጻጻፍ መረጃት

ይህ በጊዜ የሚለካ መለማመጃ አይደለም፤ እናም የተግራው ገጽ የለም፤ ምንጡን ሙከራ ብለህ አንድ ጊዜ ብቻ አንብብላት/ላት፤ ከዚያም ለአያንዳንዱ ጥያቄ 15 ሰከንድ ሰጥ፤ ከዚያም የሚከተለውን በል።

አንድ አጭር ታሪክ ሙከራ ብዬ አንድ ጊዜ ብቻ እንብልሃለሁ/ሻለሁ። ከዚያም አንዳንድ ጥያቄዎች እጠይቅሁለሁ/ሻለሁ። በጥንቃቄ አጻጻፍ/ጠፈ፤ ከዚያም የቻልኩትን/ሺውን ያህል መልስ/ሺ። አሁን ምን እንድትምትሰራ/ሰራ ገባህ/ሻ?

አንዲት ቡችላ ስትጫወት ጉድጓድ ውስጥ ወደቀች። እናቷም ጨኸቷን ሰምታ መጣች። ግን ልትረዳት አልቻለችም። ከዚያ አልግዞ ወደቤቷ ስትመጣ የቡችላዋን ችግር አየች። በረጅም እንጨት ጫፍ ላይ ስጋ አሰራ ወደጉድጓዱ ውስጥ አሰገባችው። ቡችላዋ ስጋውን መብላት ስትጀምር በእንጨቱ ጎትታ አወጣችት።

ቡችላዋ ምን ውስጥ ወደቀች?	[ጉድጓድ ውስጥ]	0 ትክክል	0 ስህተት	0 ምላሽ የለም
ቡችላዋ ጉድጓድ ውስጥ የገባችው ምን ስትሰራ ነው?	[ስትጫወት]	0 ትክክል	0 ስህተት	0 ምላሽ የለም
ቡችላዋ ጉድጓድ ውስጥ ስትወድት ተደግቦ የደረሰው ግን ነው?	[የቡችላዋ እናት]	0 ትክክል	0 ስህተት	0 ምላሽ የለም
ቡችላዋ ከጉድጓዷ ስትወጣ የቡችላዋ እናት ምን ተሰማት?	[ደስታ]	0 ትክክል	0 ስህተት	0 ምላሽ የለም
ቡችላዋ ከጉድጓዱ እንዴት ወጣች?	[አልግዞ በእንጨት ላይ ስጋ አሰራ የላከችውን ስጋ ስትበላ በመጎተት]	0 ትክክል	0 ስህተት	0 ምላሽ የለም

ጎበዝ ጥሩ ስርተኝ/ሻል። ወደሚተገለጹ ክፍል እንሸጋገር።



ክፍል 7. የተግራው ዐውዳጃ ቃለ-መጠይቅ

በቃለ-መጠይቅ እንደሚደረገው ሁሉ እያንዳንዱን ጥያቄ በትደም ተከተሎ ለልጅ አቅርቦለት፣ ለማራጭ ምላሾችን ሙከራ ብለህ አታንብብ። ልጅ እስኪመለስ ጠብቀው፣ ከዚያ ምላሹን በተሰጠው ባዶ ቦታ ላይ ጸኖ ወይም ክልጅ ምላሽ ጋር የሚሰማውን ለማራጭ ምላሽ ኮድ ክበበው። የተለየ መመሪያ አስከፊ ተሰጦ ድረስ አንድ መለስ ብቻ ነው የሚፈቀደው።

1	በትምህርት ቤት ውስጥ የምትናገረውን /ትናገረውን ቋንቋ ነው እቤት ውስጥ የምትጠቀሙ/የምትጠቀሟቸው?	አይደለም: 0 አዎ 1 አላውቅም/ምላሽ የለም 9
2	እቤት ውስጥ የምትናገረው/ረው ቋንቋ ምንድነው? [ከአንድ በላይ ምላሾች ይፈቀዳሉ]	አማርኛ 1 አሮጌኛ 2 ትግርኛ 3 ሲዳሞኛ 4 ሀረሪ 5 ሱማላኛ 6 ሌላ (ግለጽ) 7 አላውቅም/ምላሽ የለም 9
በቤትህ ውስጥ አለ?		የለም አዎ አላውቅም ምላሽ የለም
3	ሬዲዮ	0 1 8 9
4	ስልክ ወይም ሞባይል	0 1 8 9
5	የኤሌትሪክ መብራት	0 1 8 9
6	ቴሌቪዥን	0 1 8 9
7	መጻፍያ	0 1 8 9
8	ባይስክል	0 1 8 9
9	ሞተር ሳይክል	0 1 8 9
10	የቤት መኪና፣ የጭነት መኪና፣ ትራክተር	0 1 8 9
11	የቤት እንስሳት (ለምሳሌ በሬ፣ በግ፣ ፍየላ፣ ግመላ...) አሏችሁ?	የለም 0 አለ 1 አላውቅም/ምላሽ የለም 9
11ሀ	ሥንት የቤት እንስሳት (በሬ፣ በግ፣ ፍየላ፣ ግመላ...)
12	የምትናገርበት/ረበት ቤት ግሪፍ/ክፍን ምንድን ነው?	ቆርቆሮ 1 ሳር 2 ፕላስቲክ 3 አላውቅም/ምላሽ የለም 9
13	የምትናገርበት/ረበት ቤት ወለል ምንድን ነው?	አፈር 1 የፕላስቲክ ታይል 2 ሊኾ (ሲሚንት) 3 አላውቅም/ምላሽ የለም 9
14	አንደኛ ክፍል ከመግባትህ/ሽ በፊት መዋዕለ ሕጻናት ወይም ተድመ መደበኛ ትምህርት ቤት /ቴስ ትምህርት ቤት፣ ቱርግን.../ገብተህ/ሽ ነበር?	አልገባሁም 0 አዎ 1 አላውቅም/ምላሽ የለም 9



15	ባለፈው ዓመት ስንተኛ ክፍለ ነበርክ/ሽ?	ትምህርት ቤት አልገባሁም 0 1ኛ 1 2ኛ 2 3ኛ 3 አላውቅም/ምላሽ የለም 9
16	በዚህ ዓመት ከአንድ ሳምንት በላይ ከትምህርት ቤት ቀሪ ነበርክ/ሽ?	አልቀረሁም 0 አዎ 1 አላውቅም/ምላሽ የለም 9
17	የአማርኛ ቋንቋ መግሪያ ወይም የንባብ መጽሐፍ አለህ/ሽ?	የለኝም 0 አዎ 1 አላውቅም/ምላሽ የለም 9
18	ከትምህርት ቤት ውጪ በቤት ውስጥ የሚነበቡ መጽሐፎች/ጋዜጦች ወይም ሌሎች አሉ?	የለም 0 አዎ 1 አላውቅም/ምላሽ የለም 9
	ለ18ኛው ጥያቄ ምላሹ አዎ ከሆነ ምላሴ ስጥ/ጩ	(ምላሹን መጻፍ አያስፈልገም)
19	[ለ18ኛው ጥያቄ ምላሹ (አዎ) ከሆነ] እነዚህ መጽሐፎች ወይም ጽሑፎች የተጻፉበት ቋንቋ ምንድነው? [ከአንድ በላይ ምላሽ ይፈቀዳል]	አማርኛ 1 እርምጃ 2 ትግርኛ 3 ሲዳሞኛ 4 ሀረሪ 5 ሱማላኛ 6 እንግሊዝኛ 7 ሌላ (ግለጽ) 8 አላውቅም/ምላሽ የለም 9
20	በቤት ውስጥ የሚያስጠናህ/ሽ ማን ነው?	የለም 1 እናት 2 አባት 3 ወንድም/እህት 4 ሌላ ዘመድ 5 አስጠኝ(የተቀጠረ) 6 አላውቅም/ምላሽ የለም 9
21	እናትህ/ሽ ማንበብና መጻፍ ይችላሉ?	አትችሉም 0 ትችላለች 1 አላውቅም/ምላሽ የለም 9
22	አባትህ/ሽ ማንበብና መጻፍ ይችላሉ?	አይችሉም 0 ይችላል 1 አላውቅም/ምላሽ የለም 9
አሁን ጨርሰናል። በጣም ጥሩ ስራ ነው የሰራኸው/ሽው። ወይከፍልህ/ሽ ተመለስ/ሽ። ላራ እዚህ ስለሰራኸው ነገር ለማንም አትውራ/ሪ።		

ያለቀበት ሰዓት /.....

**Teacher Questionnaire
May 2010**



- The Ethiopian Ministry of Education and USAID is conducting a study to better understand how children learn to read. Your school was selected through a process of random sampling. We would like your help in this. But you do not have to take part if you do not want to.
- Your name will not be recorded on this form, nor mentioned anywhere in the survey data. The results of this survey will be published in the form of collective tables. The information acquired through this instrument will be shared with the Ministry of Education with the hope of identifying areas where additional support may be needed.
- The name of your school and the class you teach will be recorded so that we can correctly link school, class, and student data so as to analyze relationships between children's learning and the characteristics of the settings in which they learn. Your school's name will not be used in any report or presentation. The results of analysis will be used to help identify additional support that is needed.
- If you agree to help with this study, please read the consent statement below, check the "Yes" box, and answer the questions in this questionnaire as completely and accurately as you can, regarding your teaching preparation and activities. It should take you no more than 10 minutes. Return the completed form to the study team before the team leaves your school.
- If after reading this message you prefer not to participate, please return this form with no markings to the study team.

CONSENT STATEMENT: I understand and agree to participate in this reading research study by filling out this questionnaire as completely and accurately as possible. YES

Please answer all questions truthfully. Write each response in the space on the right across from each item. Where response options are given, clearly circle the number on the far right of the option that corresponds most closely to your response. For example, (3)

	Name of Assessor:	
1	Name of Region:	
2	Name of Woreda/Sub-City:	
3	Name of School:	
4	Classes you are teaching this year (Circle numbers for ALL classes that apply):	GRADE 1 1 GRADE 2 2 GRADE 3 3 GRADE 4 4 GRADE 5 5 GRADE 6 6 GRADE 7 7 GRADE 8 8

5	Name of the Class and Section you teach:	Class: _____ Section: _____
6	Your gender:	Male 1 Female 2
7	Enrolment of your class (indicate numbers by gender)	Number of boys: _____ Number of girls: _____
8	Your age at last birthday (years)	_____ years
9	Are you a Trained Teacher?	No 0 Yes 1
10	What is your highest professional qualification?	1 → Certificate 2 → Diploma 3 → Bachelor's degree 4 → Master's degree 5 → Other (Specify) 4
11	How many years have you been teaching overall?	_____ years
12	How many years have you been teaching as a trained teacher?	_____ years
13	Does your school have a functioning Library or Reading Room?	No 0 Yes 1 Don't know 9 <i>If "No" or "Don't Know" skip to 15</i>
14	Are there sufficient reading materials for supporting reading teaching?	No 0 Yes 1
15	Do you supervise your pupils as they use the library?	No 0 Yes 1
16	Do you have sufficient learning materials?	No 0 Yes 1 Don't know 9
17	Does your school have a functioning Parent - Teacher Association (PTA)?	No 0 Yes 1 Don't know 9
18	Do you have class meetings with the parents of your pupils?	No 0 <i>Skip to 20</i> Yes 1

19	How often do you have class meetings with these parents?	About once per semester 1 About twice per semester 2 About thrice per semester 3 About four times per semester 4 Five or more times per semester 5 Other, specify.....
20	Approximately, how long do you take to walk to school from your residence?	Stay within the school compound 0 15 minutes or less 1 16 to 30 minutes 2 31 to 45 minutes 3 46 to 60 minutes 4 More than 60 minutes 5
21	Please state the main textbook you use during reading lessons I don't have the Textbooks 9 Skip to 24
22	How often do you use the reading textbook mentioned in Q21 during reading lessons?	One day per week 1 Two days per week 2 Three days per week 3 Four days per week 4 Five days per week 5 I don't have the Texts 9
23	How useful do you find this reading Textbook?	Not useful 1 A little bit useful 2 Somewhat useful 3 Useful 4 Very useful 5
24	Do you have a teacher's guide for the reading class? (They may not have separate one, modify for clarity)	No 0 Skip to 27 Yes 1
25	How useful do you find this guide?	Not useful 1 A little bit useful 2 Somewhat useful 3 Useful 4 Very useful 5
26	What improvements to the guide would you recommend? (Describe):	

Following are different activities you might do with your pupils. Think about <u>the last 5 school days</u> and indicate how often each of the following activities took place, by circling the number on the right that corresponds to the closest frequency:							
		Never	1 day a week	2 days a week	3 days a week	4 days a week	5 days a week
27	The whole class repeated sentences that you said first.	0	1	2	3	4	5
28	Pupils copied down text from the chalkboard.	0	1	2	3	4	5
29	Pupils retold a story that they read.	0	1	2	3	4	5
30	Pupils sounded out unfamiliar words.	0	1	2	3	4	5
31	Pupils learned meanings of new words.	0	1	2	3	4	5
32	Pupils read aloud to teacher or to other pupils.	0	1	2	3	4	5
33	Pupils were assigned reading to do on their own during school time.	0	1	2	3	4	5
Which of the following methods do you use to measure your pupils' reading progress? Indicate how often you use each method by circling the number on the right that corresponds to the closest frequency:							
		Never	1 day a week	2 days a week	3 days a week	4 days a week	5 days a week
34	Written evaluations	0	1	2	3	4	5
35	Oral evaluations	0	1	2	3	4	5
36	Review of pupil work	0	1	2	3	4	5
37	Checking of exercise books	0	1	2	3	4	5
38	Checking of homework	0	1	2	3	4	5
39	Other methods (please describe):						
In what class should pupils FIRST be able to demonstrate each of the following reading skills? Circle number of option corresponding most closely to your response for each skill.							
		Before G 1	G 1	G 2	G 3	Not important	
40	Read aloud a short passage with few mistakes	0	1	2	3	9	
41	Write name	0	1	2	3	9	
42	Understand stories they read	0	1	2	3	9	
43	Recognize letters and say letter names	0	1	2	3	9	
44	Sound out unfamiliar words	0	1	2	3	9	
45	Understand stories they hear	0	1	2	3	9	
46	Recite alphabet	0	1	2	3	9	

47	How many days of in-service training or continuous professional development sessions have you attended during the last year? If none put a "zero" and skip to 49.	Days: _____	
48	Did you learn how to teach reading in mother tongue during this training?	No0	Yes1
49	How many days of in-service training or professional development in the area of reading or in mother tongue have you attended during the last three years?	Days: _____	
50	If yes to Question 49, indicate year(s) and for how many hours total (approx.)	Which Year(s): _____	Total Hours: _____
51	If you ever attended in-service training in Question 47 or Question 49, what was the most useful aspect of these trainings?		
	Name of Data Entrant:		

Thank you for your participation! You have been very helpful.

D10	Have you received special training or taken courses in school management?	Yes 1 No 0 Go to D13 Doesn't know/Refuses to respond 99						
D11	If yes, what was the length of the program? [Enter in the period of time elapsed next to the appropriate measure of time either day, week, or month] [IF DONT KNOW, ENTER "DK"]	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> days weeks months						
D12	Who initiated this training for you?	My woreda/sub-city invited me 1 I initiated it 2 Other 3 If other, specify: _____						
D13	Have you received special training or taken courses that prepared you to implement a program in reading?	Yes 1 No 0 → Go to D17 Doesn't know/Refuses to respond 99						
D14	If yes, what was the length of the program? [IF DONT KNOW, ENTER "DK"]	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td> </td><td> </td></tr> </table> days						
D15	Who organized this training?	Regional Education Bureau (REB) 1 Zone Education Office (ZEO) 2 Woreda Education Office (WEO) 3 Cluster Center 4 Other 5 If other, specify: _____						
D16	How were you selected to this training?	I was invited by the REB 1 I was invited by the WEO 2 I was invited by the Cluster Center 3 I took the initiative to go 4 Other 5 If other, specify: _____						
D17	Have you supported teachers on how to teach reading (the pedagogy)?	Yes 1 No 0						
D18	Are you satisfied with the performance in reading in Grade 2 and Grade 3 in your school?	Yes 1 No 0 no response 99						

D19	In the last month, on how many days did you have to leave the school during the school day on official school business?	Number of Days	<input type="text"/> <input type="text"/>
Information about the school			
D20	What is the highest Class taught in this school?	Class	<input type="text"/>
D21	Does your school teach in mother tongue for Grade 1 Grade 4?	Yes 1 No 0 I don't know 99	
D22	What percentage of actual instruction in Grade 1-4 is in mother tongue?	Percentage	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
D23	When is the appropriate class to begin teaching in English?	Grade 1 1 Grade 2 2 Grade 3 3 Grade 4 4 Grade 5 5 Grade 6 6 Grade 7 7 Grade 8 8 Grade 9 9	
D24	Why does your school not use more mother tongue in its instruction?	Explain:	<hr/> <hr/>
D25	How many of the teachers have received specific training using mother tongue as the medium of instruction?	Number of teachers	<input type="text"/> <input type="text"/>
D26	Who organized this training? [Multiple Possible Responses]	The school 1 The cluster center 2 The woreda 3 The regional education bureau 4 If other, specify: _____	
D27	Since the start of the current school year, was this school closed during the regular school calendar other than holidays?	Yes 1 No 0 Go to D30	
D28	[If yes.] how many days was the school closed?	Number of days	<input type="text"/> <input type="text"/>
D29	[If yes.] Why was the school closed?	Explain:	<hr/> <hr/>

D30	Was your school disturbed [affected] by disturbances (including protests) this year?	Yes 1 No 0 Go to D33 don't know/no response 99
D31	How many days this year?	Number of days this year <input type="text"/> <input type="text"/> <input type="text"/>
D32	How many days last year?	Number of days last year <input type="text"/> <input type="text"/> <input type="text"/>
D33	How many teachers were absent yesterday (or on the last school day)? [ENTER "DK" FOR "DONT KNOW"]	Number of absent teachers <input type="text"/> <input type="text"/>
D34	How many teachers arrived after the start of classes yesterday (or on the last school day)? [ENTER "DK" FOR "DONT KNOW"]	Number of teachers who were late <input type="text"/> <input type="text"/>
D35	Is someone responsible for reviewing teacher's lesson plans	No one 0 Go to D37 Director 1 Deputy Director 2 Other 3 If other, specify: _____
D36	How often are these plans reviewed?	Never 0 Once per year 1 Once every 2-3 months 2 Once every month 3 Once every two weeks 4 Every week 5 Once per day 6 Don't Know/No Responses 99
D37	In your school, who is responsible for observing teachers in their classrooms?	No one observes 0 Go to D39 head teacher 1 deputy head teacher 2 Other 3 If other, specify: _____ I don't know/Refuse to respond 99

D38	In a term, how often are you able to observe the teachers in their classrooms?	Never 0 One time 1 Two times 2 Three Times 3 Four or more times 4 If other, specify: _____ I don't know/Refuse to respond 99
D39	How do you know whether your pupils are progressing? [DO NOT READ RESPONSES - CIRCLE 1 FOR THOSE MENTIONED]	
D39.1		YES Classroom observation 1
D39.2		Monitor students' results on tests given by teachers 1
D39.3		Evaluate children orally myself 1
D39.4		Review children's assignments or homework 1
D39.5		Teachers provide me progress reports 1
D39.6		Other 1
D39.7		If other, specify: _____ Don't know/refuse to respond 1
D40	Has your school received mother tongue textbooks or materials for reading? [IF YES], when?	No 0 Yes 1 If yes, specify: _____ Don't know/refuse to respond 99
D41	Who provides pupils' textbooks in mother tongue? [CIRCLE '1' IF THIS SOURCE WAS MENTIONED]	YES Ministry 1 School (via independent funds) 1 Parents (individually) 1 School Committee or board 1 Other (specify): 1 If other, specify: _____ Don't know/refuse to respond 1
D42	How often did the P.T.A. meet in this past year?	Never 0 once a year 1 once every 2-3 months 2 once a month 3 once a week 4 doesn't know/no response 99

D43	For which of the following does the PTA have decision making authority and/or responsibility? [CIRCLE ALL THAT APPLY] [DON'T READ ALL THE POSSIBLE RESPONSES. SIMPLY CIRCLE 1 FOR EACH RESPONSE GIVEN]	Yes	
D43.1		Discuss school management problems?	1
D43.2		Discuss pupils' problems and solutions?	1
D43.3		Review progress of school improvement efforts?	1
D43.4		Review financial situation (budgets) of the school	1
D43.5		Manage school infrastructure and equipment?	1
D43.6		Discuss school curriculum?	1
D43.7		Raise funds	1
D43.8		Manage procurement or distribution of textbooks?	1
D43.9		don't know/no response	1
D44	Is there clean, safe water supply available on school premises?	Yes	1
		No	0
D45	Does the school have electricity?	Yes	1
		No	0
		don't know/no response	99
D46	Does the school have girls' washroom facilities?	Yes	1
		No	0
		don't know/no response	99
D47	Does the school have a computer room?	Yes	1
		No	0
		don't know/no response	99
D48	Does the school have a library?	Yes, for the pupils	1
		Yes, for the teachers	2
		Yes, for pupils and teachers	3
		No	0
		don't know/no response	99
D49	Using the MOE policy, what language should this school teach in for Grade 1-4?	Mother tongue	1
		Amharic	2
		English	3
		Other	4
D50	Is this considered an urban or a rural school?	Urban	1
		Rural	2

THANK YOU

Appendix B: Sample English EGRA Instrument

SECTION 1: LETTER NAME KNOWLEDGE

Example:

A v L

Test Questions:

A	i	e	R	S	Y	h	O	n	T
B	E	t	L	a	m	d	C	w	f
U	r	x	u	g	D	s	N	p	F
c	y	Q	M	P	V	Z	H	b	j
o	X	K	G	I	J	k	l	q	v
W	z								

SECTION 3: Phonemic Clues

Example:

l	it	lit
sh	in	shin

Test Questions:

l	and	land
m	eat	meat
b	in	bin
s	our	sour
f	table	fable
pl	an	plan
fl	at	flat
ch	cat	catch
sh	put	push
ing	read	reading

SECTION 4: FAMILIAR WORD

Example:

cat book sit

Test Questions:

pen	book	fish	and	goat
egg	nose	happy	leg	sister
hot	cook	family	come	desk
farmer	milk	under	lion	paper
hop	tell	up	teeth	big
twelve	hello	nurse	sweep	gate
apple	village	clinic	church	comb
leave	noisy	honey	line	needle
winter	outside	ride	windy	pray
rice	difficult	know	wash	green

SECTION 5a: PASSAGE READING

Elias lives on a small farm with his mother, father, and brother Hakim. His family is happy. One sunny day Hakim plants seeds with father. A red snake bites him! Mother knows what to do. She puts wet cloths and leaves on Hakim's leg. The next day, Hakim goes back in the field with father. Elias's family is happy again.

Appendix C: Interview Protocol for Teachers

Date
School Name
Age
Ethnicity/Religious Background
Mother Tongue
Gender
Profession/Occupation
Educational Qualification
Number of Years of Experience in teaching/position

1. What do you think is the quality of education at your child's school?
 - a. What are the indicators of a quality education?
 - b. In what ways is the school meeting the criteria?
 - c. How do you think early grade reading is related to educational quality?
2. What are some of the challenges associated with your students learning to read?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Ability
 - h. Others?
3. What have you done to try to overcome these challenges?
4. How would you rate your students' ability in reading?
 - a. Poor, Average, Good, Excellent?
5. Why do you think some of your students are learning to read better than others?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Attended Kindergarten
 - h. Ability
 - i. Others?

6. Did you learn how to teach reading through your academic qualifications?
 - a. If so, please describe.
 - b. If not, why?
7. Have you been trained in how to teach reading through on-the-job training?
 - a. If so, please describe.
 - b. If not, why?
 - c. Would you like further training?
8. What kind of supplementary materials, in addition to the textbook, do you use to teach reading?
 - a. Books, radio, posters, flashcards, etc.?
9. Do you send information to parents to assist them with helping their children with homework assignments?
 - a. If yes, please describe what you do. Communication books? Checking exercises/activities?
 - b. If no, why not?
10. Is there a teacher-parent association at the school?
 - a. How many teachers and parents are involved?
 - b. How often do they meet?
 - c. Is having a teacher-parent association significant in improving the quality of education at your school?
 - i. Why or why not?
11. How are parents or community members encouraged to be involved in your school or classroom? In what ways?
 - a. Is it usually the mother or father who is involved, or both?
 - b. If they are not encouraged, why not?
12. If parents are encouraged to be involved, what are their attitudes about this?
13. What is the greatest challenge when working with parents of students?
14. Are parents' attitudes different about boys' and girls' achievement in school?
15. Do you notice a difference between boys' and girls' reading achievement?
 - a. If yes, please describe.
16. Do your students each typically miss more than 2 days of school per month?
 - a. If so, what are the reasons?
 - b. Is there a difference between girls and boys?
17. Do you believe that quality of education in your school can make a difference in your students' lives?
 - a. If so, how?

b. If not, why not?

18. Additional Notes:

የመምህራን ቃለ መጠይቅ

ቀን :- _____

የትምህርት ቤቱ ስም:- _____

አድሜ :- _____

ብከር / :- _____

ሀይማኖት:- _____

የአፍ መጽቻ ቋንቋ:- _____

ይታ :- _____

ስራ :- _____

የትምህርት ደረጃ :- _____

በሙሉም / በኃላፊነት የሰሩባቸው አመታት :- _____

1. በዚህ ትምህርት ቤት ስላለው የትምህርት ጥራት በተመለከተ ምን ያስባሉ?

❖ የትምህርት ጥራትን በተመለከተ ጠቋሚ መስፈርቶች ምንም ናቸው?

❖ ትምህርት ቤታችሁ በምን አይነት መልኩ ነው እነዚህን መስፈርቶች ላይ የሚደርሱ?

❖ በምን አይነት መልኩ ነው የንባብ ክህሎት ከትምህርት ጥራት ጋር የሚመደው?

2. ተሜዎች የንባብ ክህሎትን መግቢያ በተመለከተ ተያያዥነት ያላቸው ማቆሚያ ምንም ናቸው?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር / ከመምህራን ጥራት አንጻር / ከጠፍ ችግሮች አንጻር / ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ ከመሆን አንጻር / ከብቃት አንጻር

3. እነዚህን ከላይ የተገለጹትን ማቆሚያ ለመጽታት ምንም ጥረት አድርጋችኋል?

4. የማንበብ ክህሎትን በተመለከተ የተሜዎቻችሁን ብቃት እንዴት ትለከታላችሁ?

❖ ደካማ / አማካኝ / ጥሩ / እጅግ በጣም ጥሩ

5. ተሜዎች የንባብ ክህሎትን መግቢያ በተመለከተ የተሻሻሉት ከሌሎች ጋር ያላቸው ልዩነት ከምን የመጣ ነው ብለው ያስባሉ?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር / ከመምህራን ጥራት አንጻር / ከጠፍ ችግሮች አንጻር / ከማንበቢያ ቁሳቁስ እጥረት አንጻር /

የንባብ ትግበራ ዝቅተኛ መግን አንጻር / ቅድመ መደበኛ ትምህርት ከመከታተል አንጻር/ ከብቃት አንጻር/ ሌላ

6. የንባብ ክህሎት ማስተማርን በተመለከተ በትምህርት ያገኙት እውቀት አለ?

❖ መልስዎ አዎ ከሆነ እስኪ ይግለጹልኝ?

❖ መልስዎ የለም ከሆነ ለምን?

7. የንባብ ክህሎት ማስተማርን በተመለከተ በስራ ላይ ሆነ ወያገኙት ስልጠና አለ?

❖ መልስዎ አዎ ከሆነ እስኪ ይግለጹልኝ?

❖ መልስዎ የለም ከሆነ ለምን?

❖ ተጨማሪ ስልጠና ይፈልጋሉ?

8. የንባብ ክህሎትን ለማስተማር ከቋንቋ መሥሪያ መጠቀም ሌላ ምን አጋገጥ ዘዴ ይጠቀማሉ ?

❖ ተጨማሪ መጠቀሚያ

❖ ሬዲዮ

❖ ፖስትር

❖ ፈላሽ ካርድ

9. ለወላጆች ልጆቻቸውን የቤት ስራቸውን በሚሰሩ ጊዜ እንዲያግዙባቸው መልእክት ትልካላቸው ወይ?

❖ መልስዎ አዎ ከሆነ እስኪ ይግለጹልኝ?

❖ መልስዎ የለም ከሆነ ለምን?

10. በትምህርት ቤታችሁ ውስጥ የወላጅ-መምህራን ህብረት አለ ወይ?

❖ ምን ያህል መምህራን እና ወላጆች ይሳተፋሉ?

❖ በየሰንት ጊዜው ይገናኛሉ?

❖ ህብረቱ የትምህርት ጥራት የማስጠበቅ ማጠና ይጠቅማል?

○ መልስዎ አዎ ከሆነ እስኪ ይግለጹልኝ

○ መልስዎ የለም ከሆነ ለምን?

11. የመግቢያ ማስተማሩን በተመለከተ ቤተሰብ ወይም ማህበረሰቡ እንዴት ያበረታቷቸዋል /በምን አይነት መልኩ ነው የሚገባበትታቸው?
 - ❖ የእናት /የአባት /የሁለቱም ተሳትፎ የተለመደ ነው
 - ❖ ማንም የሚገባበትታቸው ከሆነ ለምንድን ነው?
12. የቤተሰቦች ተሳትፎ የሚበረታታ ከሆነ /የእነርሱ አመለካከት ምንድን ነው?
13. ከተማሪ ቤተሰቦች ጋር ተባብሮ ለመሰረት ዋናዎቹ ማክ ቆዎች ምንምን ስላሉ ናቸው?
14. የተማሪዎች ቤተሰብ በወንዶች እና በልጃገረዶች በትምህርት ወጠታማነት ስለሚታዩ በተመለከተ አመለካከታቸው እንዴት ነው?
15. እርስዎ በወንዶች እና በልጃገረዶች በትምህርት ወጠታማነት ስለሚታዩ በተመለከተ ልዩነት አስተዋልዋል?
 - ❖ መልስዎ አዎ ከሆነ እስኪ ይግለጻልኝ?
16. ተማሪዎቻቸው በወር ከሁለት ቀን በላይ ከትምህርት ገበታቸው ይቀራሉ?
 - ❖ አዎ ከሆነ መልስዎ ምክንቱ ምንድን ነው?
 - ❖ አዎ ከሆነ በወንዶች እና በልጃገረዶች መካከል ልዩነት አለ?
17. በትምህርት ቤታቸው ያለው የትምህርት ጥራት በተማሪዎቻቸው ህይወት ላይ ልዩነት ይፈጥራል ብላችሁ ታምናላችሁ?
 - ❖ አዎ ከሆነ እንዴት?
 - ❖ የለም ከሆነ ለምን?
18. ተጨማሪ የምትሉት ካለ?

Appendix D: Focus Group Discussion Protocol for Teachers

Welcome and thank you for participating in this focus group. The purpose of the focus group is to get your feedback about some of your feelings and impressions of the educational quality in your school and in Ethiopia. Specifically, I want to understand the importance of early grade reading skills and literacy. I want to understand what helps or impedes the development of these skills. Also, I hope to understand how you see the role of education in your and your students' lives. This is just the beginning of this project; in the future I will be meeting with some of you individually to explore these ideas further. Before I begin asking questions, I want to thank you again for agreeing to participate in this research project. Let's begin by going around the circle and introducing ourselves and saying what subjects and grades you teach.

1. What do you think is the quality of education at your school?
 - a. What are the indicators of a quality education?
 - b. In what ways is the school meeting the criteria?
 - c. In what way is early grade reading is related to educational quality?
2. What are some of the challenges associated with your students learning to read?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Ability
 - h. Others?
3. What have you done to try to overcome these challenges?
4. How would you rate your students' ability in reading?
 - a. Poor, Average, Good, Excellent?
5. Why do you think some of your students are learning to read better than others?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Attended Kindergarten
 - h. Ability

- i. Others?
- 6. Did you learn how to teach reading through your academic qualifications?
 - a. If so, please describe.
 - b. If not, why?
- 7. Have you been trained in how to teach reading through on-the-job training?
 - a. If so, please describe.
 - b. If not, why?
 - c. Would you like further training?
- 8. How are parents or community members encouraged to be involved in your school or classroom? In what ways?
 - a. Is it usually the mother or father who is involved, or both?
 - b. If they are not encouraged, why not?
- 9. If parents are encouraged to be involved, what are their attitudes about this?
- 10. Are parents' attitudes different about boys' and girls' achievement in school?
- 11. Do your students typically miss more than 2 days of school per month?
 - a. If so, what are the reasons?
- 12. Do you believe that quality of education in your school can make a difference in your students' lives?
 - a. If so, how?
 - b. If not, why not?
- 13. Additional notes:

የአትኩሮት ወይይት ለመምህራን

እንኳን ደህና መጡ። የዚህ ወይይት አላማ በትምህርት ቤታችሁ እንዲሁም በኢትዮጵያ ያለው የትምህርት ጥራትን በተመለከተ የእናንተን አመለካከት እና አስተሳሰብ እንድትገልጹልኝ ነው። ተሜዎች የንባብ ክህሎትን የመግባት ጥቅምን ለማወቅ ይረዳኛል። ይህ የስራችን መጀመሪያ ነው ወደፊት ለየብቻ ወይይትም ይኖረናል። ጥያቄዎቹን ከመጀመሪያ በፊት በድጋሜ በዚህ ወይይት ለመሳተፍ ፍቃደኛ ስለሆናችሁ ማሞኘትን እወዳለሁ። ስማችሁን የምታስተምሩትን ትምህርት እና የምታስተምሩበትን ክፍል በመገለጽ ወይይታችንን እንጀምራለን።

- 1. በዚህ ትምህርት ቤት ስላለው የትምህርት ጥራት በተመለከተ ምን ያስባሉ?
 - ❖ የትምህርት ጥራት በተመለከተ ጠቋሚዎች መስፈርቶች ምንምን ናቸው?
 - ❖ ትምህርት ቤታችሁ በምን አይነት መልኩ ነው እነዚህን መስፈርቶች ላይ የሚደርሱዎት?
 - ❖ በምን አይነት መልኩ ነው የንባብ ክህሎት ከትምህርት ጥራት ጋር የሚዛመደው?

2. ተሜዎች የንባብ ክህሎትን መግባት በተመለከተ ተያያዥነት ያላቸው ማካቆዎች ምንምን ናቸው?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር/ ከመሥሪያ ቤቅ አንጻር / ከጠፍ ችግሮች አንጻር/ ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ ከመሆን አንጻር / ከብቃት አንጻር

3. እነዚህን ከላይ የተገለጹትን ማቆሚያ ለመፍታት ምን ምን ጥረት አድርጋችኋል?

4. የማንበብ ክህሎትን በተመለከተ የተመረቀቻችሁን ብቃት እንዴት ትለኩታላችሁ?

❖ ደካማ / አሜካኝ / ጥሩ / እጅግ በጣም ጥሩ

5. ተመራማሪ የንባብ ክህሎትን መሟላት በተመለከተ የተሻሻሉት ከሌሎች ጋር ያላቸው ልዩነት ከምን የመጣው ብለው ያስባሉ?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር/ ከመሥሪያ ቤቅ አንጻር/ ከጠፍ ችግሮች አንጻር/ ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ ከመሆን አንጻር / ከብቃት አንጻር

6. የንባብ ክህሎት ማስተማርን በተመለከተ በትምህርት ያገኙት እውቀት አለ?

❖ መልስዎ አዎ ከሆነ እስኪይግለጹልኝ

❖ መልስዎ የለም ከሆነ ለምን

7. የንባብ ክህሎት ማስተማርን በተመለከተ በሰራ ላይ የወሰዱት ስልጠና አለ?

❖ መልስዎ አዎ ከሆነ ለምን

❖ መልስዎ የለም ከሆነ ለምን

❖ ለወደፊት ስልጠና ቢሰጥዎት ይፈልጋሉ

8. የመሟላት ማስተማርን በተመለከተ ቤተሰብ ወይም ማህበረሰቡ እንዴት ያበረታቷል / በምን አይነት መልኩ ነው የሚቀበረታቷቸው?

❖ የእናት / የአባት / የሁለቱም ተሳትፎ የተለመደ ነው?

❖ ማንም የሚቀበረታችሁ ከሆነ ለምንድን ነው?

9. የቤተሰቦች ተሳትፎ የሚበረታታ ከሆነ / የእነርሱ አመለካከት ምንድነው?

10. የተመራማሪ ቤተሰብ በወንዶችና በልጃገረዶች በትምህርት ወጠታ ማቆሚያ ተቀናቃኝ በተመለከተ አመለካከታቸው እንዴት ነው?

11. ተመራማሪዎች በወር ከሁለት ቀን በላይ ከትምህርት ገበታቸው ይቀራሉ?

❖ አዎ ከሆነ መልስዎ ምክንያቱ ምንድን ነው?

12. በትምህርት ቤታችሁ ያለው የትምህርት ጥራት በተመራማሪዎችሁ ህይወት ላይ ልዩነት ይፈጥራል ብላችሁ ታምናላችሁ?

❖ አዎ ከሆነ እንዴት?

❖ የለም ከሆነ ለምን?

13. ተጨማሪ የምትሰጡት ካለ?

Appendix E: Interview Protocol for Parents

Date

School Name

Age

Ethnicity/Religious Background

Mother Tongue

Gender

Profession/Occupation

Educational Qualification

1. What do you think is the quality of education at your school?
 - a. What are the indicators of a quality education?
 - b. In what ways is the school meeting the criteria?
 - c. In what way is early grade reading is related to educational quality?
2. Do you feel that your child has learned to read at school?
 - a. If not, why?
3. What are some of the challenges associated with your child learning to read?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Ability
 - h. Others?
4. What have you done to try to overcome these challenges?
5. How interested is your child in reading?
6. Do you think your child's teacher is fully qualified to teach reading?
7. Does your child practice reading at home or in your community?
 - a. If so, please give me an example.
 - b. If not, why not?
8. Does your child bring his/her language textbook home from school?
9. Are you buying supplementary books for your child to help them with reading?
10. Did your child attend kindergarten or a religious preschool?
11. Do you help your child with his/her school work?
 - a. If so, please describe how you help.
 - i. Is it usually the mother or father who is helping, or both?

- b. If not, why not?
- 12. Do the elder children in your family help the younger children with schoolwork?
 - a. If so, please describe how they help.
 - b. How helpful is it when the elder children help the younger children?
- 13. Is there a teacher-parent association at the school?
 - a. How many teachers and parents are involved?
 - b. How often do they meet?
 - c. What do they discuss?
- 14. Are you involved with the school in any way?
 - a. If so, in what ways?
 - i. Is it usually the mother or father who is involved, or both?
 - b. If not, why not?
- 15. How do you feel about being involved in your child's school?
- 16. In your opinion, how do parents in this school feel about the difference between boys' and girls' reading achievement?
 - a. Are boys and girls treated differently?
 - i. If so, how and why?
- 17. Does your child typically miss more than 2 days of school per month?
 - a. If so, what are the reasons?
- 18. Do you believe that quality of education in your child's school can make a difference in his/her life?
 - a. If so, how?
 - b. If not, why not?
- 19. Additional Notes:

የተጫዋቾች ወላጆች ቃለ መጠይቅ

ቀን :- _____
 የትምህርት ቤቱ ስም:- _____
 እድሜ :- _____
 ብሔር/ :- _____
 ሀይማኖት:- _____
 የአፍ መጽሕፍ ቋንቋ:- _____
 ፆታ :- _____
 ስራ :- _____
 የትምህርት ደረጃ :- _____

1. በዚህ ትምህርት ቤት ስላለው የትምህርት ጥራት በተመለከተ ምን ያስባሉ?

- ❖ የትምህርት ጥራት በተመለከተ ጠቁሚያዎች መስፈርቶች ምንም ዓይነት ሳይኖሩ?
- ❖ ትምህርት ቤታችሁ በምን አይነት መልኩ ነው እነዚህን መስፈርቶች ላይ የሚደርሱዎት?
- ❖ በምን አይነት መልኩ ነው የንባብ ክህሎት ከትምህርት ጥራት ጋር የሚያደርግዎት?

2. የንባብ ክህሎትን ልጅዎ በትምህርት ቤት የተሟላ ይመስሉታል?

- ❖ መልስዎ የለም ከሆነ ለምን?

3. ተሟላዎች የንባብ ክህሎትን መሟላ በተመለከተ ተያያዥነት ያላቸው ማንኛዎች ምንም ዓይነት ሳይኖሩ?

- ❖ ከአኮኖሚካዊ ስብከት / ከወላጆች ተሳትፎ አንጻር / ከመሥሪያ ቤቅ ጋር / ከጠቆሞች አንጻር / ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ መሆን አንጻር / ከብቃት አንጻር

- 4. እነዚህን ከላይ የተገለጹትን ማንኛዎች ለመፍታት ምንም ዓይነት ጥረት አድርገዋል?
- 5. ልጅዎ የንባብ ፍላጎቱ ምን ያህል ነው?
- 6. የንባብ ክህሎትን ለማስተማር የልጅዎ መምህር ብቁ ነው ብለው ያስባሉ?
- 7. ልጅዎ በቤት ውስጥ ወይም በአካባቢያችሁ የንባብ ልምድ ያከናወናል/

ታከናወናለች?

8. ልጅዎ ከትምህርት ቤት የቋንቋ መሥሪያ መጠቀም ወይም ቤት ይዞ/ዛ ይመጣል/ ትመጣለች?

9. እርስዎ የልጅዎን የንባብ ክህሎት ለማስደግግ አጋዥ መሆን ምን ያህል ነው?

10. የእርስዎ ልጅ ቅድመ መጠቀም ትምህርት ወይም የሃይማኖት ትምህርት ተከታትሏል/ለች?

11. እርስዎ ልጅዎ የትምህርት ቤት ስራ ሰራ / ስትራ ስራ ድጋፍ ያደርጋሉ?

- ❖ መልስዎ አዎ ከሆነ እንዴት ድጋፍ እንደሚደርጉ እስኪ ይግለጹልኝ?
- ❖ መልስዎ የለም ከሆነ ለምን?

12. እርስዎ ልጅዎ በቤት ውስጥ ያሉ ታላላቅ እሴቶች/ ወንድሞች የትምህርት ቤት ስራ ሰራ / ስትራ ስራ ድጋፍ ያደርጋሉ?

- ❖ መልስዎ አዎ ከሆነ እንዴት ድጋፍ እንደሚደርጉ እስኪ ይግለጹልኝ?
- ❖ በታላላቆቻቸው ምን ያህል ድጋፍ ያገኛሉ?

13. በዚህ ትምህርት ቤት ውስጥ የወላጅ-መምህራን ህብረት አለ ወይ?

- ❖ ምን ያህል መምህራን እና ወላጆች ይሳተፋሉ?
- ❖ በየሰንት ጊዜው ይገናኛሉ?
- ❖ በምን አይነት ጉዳዮች ላይ ይወያያሉ?

14. እርስዎ የመሟላ መሟላትን በተመለከተ ልጅዎ ትምህርት ቤት ተሳትፎ ያደርጋሉ?

- ❖ መልስዎ አዎ ከሆነ በምን መልኩ?
- ❖ የእናት / የአባት / የህላቱም ተሳትፎ የተለመደ ነው?
- ❖ መልስዎ የለም ከሆነ ለምን?

15. እርስዎ የመሟላ መሟላትን በተመለከተ ልጅዎ ትምህርት ቤት ተሳትፎ እንዲያደርጉ ቢጠቁ ምን ይሰጣታል?

16. በእርስዎ አመለካከት በዚህ ትምህርት ቤት ያሉ የተማሪ ቤተሰቦች ወንዶች እና በልጃገረዶች የንባብ ክህሎት በተመለከተ አመለካከታቸው እንዴት ነው?

❖ በወንዶች እና በልጃገረዶች መካከል የወላጆች ትኩረት አሰጣጥ ልዩነት አለው?

❖ መልስዎ አዎ ከሆነ እንዴት እና ለምን?

17. ልጅዎ በወር ከሁለት ቀን በላይ ከትምህርት ገበታው/ዋ ይቀራል/ትቀራለች?

❖ አዎ ከሆነ መልስዎ ምክንያቱ ምንድን ነው?

18. በዚህ ትምህርት ቤት ያለው የትምህርት ጥራት በልጅዎ ህይወት ላይ ልዩነት ይፈጥራል ብለው ያምናሉ?

❖ አዎ ከሆነ እንዴት?

❖ የለም ከሆነ ለምን?

19. ተጨማሪ የሚሉት ካለ?

Appendix F: Focus Group Discussion Protocol for Parents

Welcome and thank you for participating in this focus group. The purpose of the focus group is to get your feedback about some of your feelings and impressions of the educational quality in your school and in Ethiopia. Specifically, I want to understand the importance of early grade reading skills and literacy. I want to understand what helps or impedes the development of these skills. Also, I hope to understand how you see the role of education in your and your students' lives. This is just the beginning of this project; in the future I will be meeting with some of you individually to explore these ideas further. Before I begin asking questions, I want to thank you again for agreeing to participate in this research project. Let's begin by going around the circle and introducing ourselves and saying what subjects and grades you teach.

14. What do you think is the quality of education at your school?
 - a. What are the indicators of a quality education?
 - b. In what ways is the school meeting the criteria?
 - c. In what way is early grade reading is related to educational quality?
15. What are some of the challenges associated with your students learning to read?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Ability
 - h. Others?
16. What have you done to try to overcome these challenges?
17. How would you rate your students' ability in reading?
 - a. Poor, Average, Good, Excellent?
18. Why do you think some of your students are learning to read better than others?
 - a. Economic situation
 - b. Parental involvement
 - c. Teacher quality
 - d. Health problems
 - e. Lack of reading materials
 - f. Little practice reading
 - g. Attended Kindergarten
 - h. Ability

- i. Others?
- 19. Did you learn how to teach reading through your academic qualifications?
 - a. If so, please describe.
 - b. If not, why?
- 20. Have you been trained in how to teach reading through on-the-job training?
 - a. If so, please describe.
 - b. If not, why?
 - c. Would you like further training?
- 21. How are parents or community members encouraged to be involved in your school or classroom? In what ways?
 - a. Is it usually the mother or father who is involved, or both?
 - b. If they are not encouraged, why not?
- 22. If parents are encouraged to be involved, what are their attitudes about this?
- 23. Are parents' attitudes different about boys' and girls' achievement in school?
- 24. Do your students typically miss more than 2 days of school per month?
 - a. If so, what are the reasons?
- 25. Do you believe that quality of education in your school can make a difference in your students' lives?
 - a. If so, how?
 - b. If not, why not?
- 26. Additional notes:

የአትኩሮት ወይይት ለመግቢያ

እንኳን ደህና መጡ። የዚህ ወይይት አላማ በትምህርት ቤታችሁ እንዲሁም በኢትዮጵያ ያለው የትምህርት ጥራትን በተመለከተ የእናንተን አመለካከት እና አስተሳሰብ እንድትገልጹልኝ ነው። ተሜዎች የንባብ ክህሎትን የመግቢያ ጥቅምን ለማወቅ ይረዳኛል። ይህ የስራችን መጀመሪያ ነው ወደፊት ለየብቻ ወይይትም ይኖረናል። ጥያቄዎቹን ከመጀመሪያ በፊት በድጋሜ በዚህ ወይይት ለመሳተፍ ፍቃደኛ ስለሆናችሁ ማሞኘትን እወዳለሁ። ስማችሁን የምታስተምሩትን ትምህርት እና የምታስተምሩበትን ክፍል በመገለጽ ወይይታችንን እንጀምር።

- 1. በዚህ ትምህርት ቤት ስላለው የትምህርት ጥራት በተመለከተ ምን ያስባሉ?
 - ❖ የትምህርት ጥራት በተመለከተ ጠቋሚዎች/መስፈርቶች ምንምን ናቸው?
 - ❖ ትምህርት ቤታችሁ በምን አይነት መልኩ ነው እነዚህን መስፈርቶች ላይ የሚደርሰው?
 - ❖ በምን አይነት መልኩ ነው የንባብ ክህሎት ከትምህርት ጥራት ጋር የሚዛመደው?

2. ተሜዎች የንባብ ክህሎትን መግቢያ በተመለከተ ተያያዥነት ያላቸው ማካቆዎች ምንምን ናቸው?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር/ ከመሥሪያ ቤቅ አንጻር / ከጠፍ ችግሮች አንጻር/ ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ ከመሆን አንጻር / ከብቃት አንጻር

3. እነዚህን ከላይ የተገለጹትን ማቆም ለመቻላት ምን ምን ጥረት አድርጋችኋል?

4. የማንበብ ክህሎትን በተመለከተ የተመረቃችሁን ብቃት እንዴት ትለኩታላችሁ?

❖ ደካማ / አሜካኝ / ጥሩ / እጅግ በጣም ጥሩ

5. ተመራጭ የንባብ ክህሎትን መሟላት በተመለከተ የተሻሻሉት ከሌሎች ጋር ያላቸው ልዩነት ከምን የመጣው ብለው ያስባሉ?

❖ ከአኮኖሚ ሁኔታ አንጻር / ከወላጆች ተሳትፎ አንጻር/ ከመሥሪያ ቤቅ አንጻር/ ከጠፍ ችግሮች አንጻር/ ከማንበቢያ ቁሳቁስ እጥረት አንጻር / የንባብ ትግበራ ዝቅተኛ ከመሆን አንጻር / ከብቃት አንጻር

6. የንባብ ክህሎት ማስተማርን በተመለከተ በትምህርት ያገኙት እውቀት አለ?

❖ መልስዎ አዎ ከሆነ እስኪይግለጹልኝ

❖ መልስዎ የለም ከሆነ ለምን

7. የንባብ ክህሎት ማስተማርን በተመለከተ በሰራ ላይ የወሰዱት ስልጠና አለ?

❖ መልስዎ አዎ ከሆነ ለምን

❖ መልስዎ የለም ከሆነ ለምን

❖ ለወደፊት ስልጠና ቢሰጥዎት ይፈልጋሉ

8. የመሟላት ማስተማርን በተመለከተ ቤተሰብ ወይም ማህበረሰቡ እንዴት ያበረታቷል / በምን አይነት መልኩ ነው የሚቀበረታቷቸው?

❖ የእናት / የአባት / የሁለቱም ተሳትፎ የተለመደ ነው?

❖ ማንም የሚቀበረታችሁ ከሆነ ለምንድን ነው?

9. የቤተሰቦች ተሳትፎ የሚበረታታ ከሆነ / የእነርሱ አመለካከት ምንድነው?

10. የተመራጭ ቤተሰብ በወንዶችና በልጃገረዶች በትምህርት ወጠታማነታቸውን በተመለከተ አመለካከታቸው እንዴት ነው?

11. ተመራጭዎች በወር ከሁለት ቀን በላይ ከትምህርት ገበታቸው ይቀራሉ?

❖ አዎ ከሆነ መልስዎ ምክንቱ ምንድን ነው?

12. በትምህርት ቤታችሁ ያለው የትምህርት ጥራት በተመራጭዎችሁ ህይወት ላይ ልዩነት ይፈጥራል ብላችሁ ታምናላችሁ?

❖ አዎ ከሆነ እንዴት?

❖ የለም ከሆነ ለምን?

13. ተጨማሪ የምትሰጡ ካለ?

Appendix G: Interview Protocol for School Directors

Date

School Name

Age

Ethnicity/Religious Background

Mother Tongue

Gender

Profession/Occupation

Educational Qualification

Number of Years of Experience in teaching/position

1. How many teachers teach at this school?
 - a. Total?
 - b. Language teachers?
2. How many students attend this school?
 - a. Average classroom size?
 - b. Pupil/teacher ratio?
3. How many times per week do students attend language classes?
4. Tell me about your early grade reading/language teachers here.
 - a. Is there a department head for language teachers?
 - b. Qualifications?
 - c. Training?
 - d. Motivation?
5. How do you work to enhance the motivation of the language teachers?
 - a. Materials? Library?
 - b. Training?
 - c. Reading Club?
6. How are your teachers being evaluated?
 - a. How often are they evaluated?
7. Is there a teacher-parent association at the school?
 - a. How many teachers and parents are involved?
 - b. How often do they meet?
 - c. What do they discuss?
8. What is the linguistic breakdown of the students at this school?
 - a. Are most students' language the same at home as at school?
9. Do parents have to pay any fees?
 - a. Registration fees?
 - b. Book fees?
 - c. Lunch fees?
10. Does each student have a language textbook?

- a. Are students able to take their language textbook home?
- 11. Does the school have electricity?
- 12. What are the sources for drinking water at this school?
 - a. Is water available for all the children to drink?
 - b. Is water available for all the children to wash their hands?
- 13. Are there latrines available for all students?
 - a. How many latrines are there?
 - b. Are there separate latrines for boys and girls?
- 14. How do students eat lunch at the school?
 - a. Bring their lunch? Cafeteria? School feeding program? Garden?
 - b. Do many students go without lunch?
- 15. Is there a problem with absenteeism at your school?
 - a. If yes, why?
- 16. What donors/sponsors does your school have?

የርዕሰ ማህር / ምክትል ርዕሰ ማህር / ማህር ቃለ መጠይቅ

ቀን :- _____
 የትምህርት ቤቱ ስም:- _____
 እድሜ :- _____
 ብከር / :- _____
 ሀይማኖት:- _____
 የአፍ ማቆሚያ ቋንቋ:- _____
 ስም :- _____
 ስራ :- _____
 የትምህርት ደረጃ :- _____
 በማህተሚ / በኃላፊነት የሰሩባቸው አመታት :- _____

1. በዚህ ት/ቤት ምን ያህል ማህራን ያስተምራሉ?
 ❖ አጠቃላይ ብዛት
 ❖ የቋንቋ ማህራን ብዛት
2. በዚህ ት/ቤት ምን ያህል ተማሪዎች ይገኛሉ?
 ❖ በአጠቃላይ በክፍል ውስጥ _____
 ❖ የማህር ተማሪ ጥምርታ _____
3. በሳምንት ለምን ያህል ክፍለ ጊዜ የቋንቋ ትምህርት ይሰጣሉ?
4. እባክዎን ት/ቤቱ ውስጥ ሥላሉ የዝቅተኛ (ከ1-4) ደረጃ ተማሪዎች ቋንቋ ማህራን ቢነግሩን?
 ❖ የቋንቋ የትምህርት ክፍል አለ ወይ?
 ❖ የትምህርት ደረጃቸውን በተመለከተ?

❖ ስልጠናን በተመለከተ?

❖ ተነሳሽነታቸውን በተመለከተ?

5. ትምህርት ቤታችሁ የቋንቋ መምህራንን የሚስተምር ተነሳሽነታቸውን ከፍ ለማድረግ ምን ምን አደርጓል?

❖ የቁሳቁስ ድጋፍን፣ ቤተ መጽሀፍትን በተመለከተ?

❖ ስልጠናን በተመለከተ?

❖ የንባብ ክብብን በተመለከተ?

6. መምህራናቸችሁ በምን መልኩ ነው የሚመጡት?

❖ በየሰንት ጊዜው ነው የሚመጡት?

7. በትምህርት ቤታችሁ ወስጥ የወላጅ-መምህራን ህብረት አለ ወይ?

❖ ምን ያህል መምህራን እና ወላጆች ይሳተፋሉ?

❖ በየሰንት ጊዜው ይገናኛሉ?

❖ በምን አይነት ጉዳዮች ላይ ይወያያሉ?

8. የአብዛኛው ተማሪ የመሥሪያ እና የቤት ወስጥ መገባቢያ ቋንቋ ተመሳሳይ ነው ወይ?

9. ለተማሪዎች የሚከፈል ክፍያ አለ ወይ?

❖ የምዝገባ ክፍያ

❖ የመጻሕፍት ክፍያ

❖ የምሳ ክፍያ

10. እያንዳንዱ ተማሪ የቋንቋ መሥሪያ መጻሕፍት አለው ወይ?

❖ የቋንቋ መሥሪያ መጻሕፍትን ወደ ቤት መወሰድ ይችላሉ ወይ?

11. ትምህርት ቤቱ የኤሌክትሪክ ሀይል አገልግሎት ተጠቃሚ ነው ወይ?

12. በትምህርት ቤታችሁ ለተማሪዎች በዋናኝነት የሚጠቀሙ ወሃ ምንጭ ከየት ነው?

❖ ለሁሉም ተማሪዎች የሚጠቀሙ ወሃ አቅርቦት አለ ወይ?

❖ ለሁሉም ተማሪዎች የእጅ መታጠቢያ ወሃ አለ ወይ?

13. ለተማሪዎች የመጻፍት አገልግሎት አለ ወይ?

❖ አጠቃላይ ስንት መዳኛ ቤቶች አሉ?

❖ የወንዶች ስንት? _____

❖ የልጃገረዶች ስንት? _____

14. ተሜዎች ምሳቸውን በምን አይነት መልኩ ነው የሚገኝበት?

❖ ምሳቸውን ከየቤታቸው ይዘው መጥተው፣ ከካፍቴሪያ፣ በትምህርት ቤቱ የምግባ ፕሮግራም ፣ በመኖሪያ ወሰን

❖ ምሳቸው ሳይመጡ የሚገኙ ተሜዎች አሉ ወይ?

15. ተሜዎች ከትምህርት ገበታቸው አብዝተው የመቅረት ልምድ አላቸው ወይ?

❖ መልሱ አዎ ከሆነ ምክንያቱ ምንድን ነው? _____

16. ትምህርት ቤታችሁ ከመግስትም ሆነ መግስታዊ ካለሆኑ ድርጅቶች ድጋፍ ያገኛል ወይ

Appendix H: Descriptive Statistics for Independent Variables

Variable	Definition	Mean	SD	Min	Max
School Infrastructure	composite variable as a proxy indicator for school and community SES: whether the school has water, separate girls washroom, and electricity	-3.46e ⁻⁰⁹	1.25	-4.65	1.04
Current Grade	grade the child is in – grade 2 or grade 3	2.50	.50	2	3
Frequency of Director's teacher observations	frequency of teachers' being observed by school directors : 1-4 times per term	2.60	1.13	1	4
Father support	composite variable for whether the father is literate and helps with homework	-6.08e ⁻⁰⁹	1.11	-1.51	2.09
Sub-City	location of school within Addis Ababa's subcities	1406.76	3.08	1401	1411
Female	whether the child is female	.51	.50	0	1
Mother tongue matches language of instruction	whether the mother tongue of the child matches the language of instruction in the school	.90	.30	0	1
Child has other reading materials at home	whether the child has other non-school text reading materials available to read in the home	.46	.50	0	1
School Context of time	composite variable for how the school uses time: whether the school uses shift classrooms and whether the school is closed beyond the regular calendar	4.76e ⁻⁰⁹	1.22	-.90	2.88
SES Transport	composite variable as a proxy indicator for family SES: whether they own a bicycle, motorcycle, or car	1.23e ⁻⁰⁹	1.19	-.38	9.40
Siblings help with homework	whether the child's older siblings help with homework	.47	.50	0	1
Directors support teachers in how to teach reading	whether the school director has provided any support to teachers in how to teach reading	.83	.37	0	1
Child has language textbook	whether the child has his/her own language textbook	.90	.30	0	1
Absent	whether the child was absent for more than a week during the last school year (9=don't know)	.12	.40	0	9

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