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## **Beyond School Inputs and Resources: An Assessment of the Effects of Program Intervention on Learning Achievement in Rebec Schools in Sierra Leone**

Item Type	Dissertation (Open Access)
Authors	Mbayo, Aiah AS
DOI	<a href="https://doi.org/10.7275/2176608">10.7275/2176608</a>
Download date	2025-08-18 12:39:04
Link to Item	<a href="https://hdl.handle.net/20.500.14394/38822">https://hdl.handle.net/20.500.14394/38822</a>

**BEYOND SCHOOL INPUTS AND RESOURCES:  
AN ASSESSMENT OF THE EFFECTS OF PROGRAM INTERVENTION ON LEARNING ACHIEVEMENT IN  
REBEP SCHOOLS IN SIERRA LEONE**

A Dissertation Presented

by

AIAH A. S. MBAYO

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF EDUCATION

May 2011

Education

Education Policy and Leadership

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AIAH A. S. MBAYO

Approved as to style and content by:

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David R. Evans, Chair

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Ash Hartwell, Member

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Sharon Rallis, Member

---

Dan Gerber, Member

---

Christine B. McCormick, Dean  
School of Education

## DEDICATION

To my late parents who were inspired by the power of education to transform lives and yet never had opportunity to darken the doors of any school. As I thought about you, I promise I will live your dreams and no one says it better than William Ernest Henley.

## Invictus

Out of the night that covers me,  
Black as the Pit from pole to pole,  
I thank whatever gods may be  
For my unconquerable soul.

In the fell clutch of circumstance  
I have not winced nor cried aloud.  
Under the bludgeonings of chance  
My head is bloody, but unbowed.

Beyond this place of wrath and tears  
Looms but the Horror of the shade,  
And yet the menace of the years  
Finds, and shall find, me unafraid.

It matters not how strait the gate,  
How charged with punishments the scroll.  
I am the master of my fate:  
I am the captain of my soul.

William Ernest Henley

## ACKNOWLEDGEMENTS

Dreams are often accomplished through the collective efforts of many; this work is no different. Foremost is Jehovah God, who, in spite of the stormy waters, the anchor held firm. I should also thank my parents, Taabbah and Chebbah, for providing me the opportunity to transform my life, but never lived long enough to savor this moment.

I thank members of my committee for their steadfast support and commitment to a rather tortuous process especially my advisor, Prof. David R. Evans, for his profound insight, thoughtfulness and candid advice throughout these years. To Prof. Ash Hartwell for his expertise and knowledge on education in sub-Saharan Africa and the numerous resources made available to me in the course of writing. I also extend sincere appreciation to Prof. Sharon R. Rallis for bringing new perspectives to the debate on education reform and for enriching my knowledge and skills in evaluation. My Thanks also go to Prof. Dan Gerber for his continued support and advice.

I should also thank other faculty, staff, and students at the Center for International Education (CIE), University of Massachusetts, who contributed in diverse ways to shaping the discourse and research study, especially Prof. Gretchen Rossman, the Program Director, who laid the foundation that triggered my interest in qualitative research and mixed-methods approach.

Above all, I thank my children, Sahr Chuckuma, Sia Ndomanya, and Tamba Charles (Teeboy) who had to endure my long absence but believed in the cause. Finally, to my dear, Acquaa for her love, patience, kindness, and abiding faith in me. All of you were indeed strong anchors that held through in spite of the battering 'storm'. God Bless!

## **ABSTRACT**

**BEYOND SCHOOL INPUTS AND RESOURCES:  
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REBEP SCHOOLS IN SIERRA LEONE**

MAY 2011

AIAH ANDREW SAHR MBAYO

B.A. (Hons), FOURAH BAY COLLEGE, UNIVERSITY OF SIERRA LEONE

M.ED., UNIVERSITY OF MASSACHUSETTS- AMHERST

Ed.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor David R. Evans

The EFA conference in Dakar 2000 ushered in new momentum for ensuring universal access to education and advocacy for improved educational quality in all aspects (UNESCO, 2000). While significant progress has been made in expanding access in sub-Saharan Africa, particularly for girls, efforts to ensure improved educational quality in terms of learning, have not matched the drive for universal educational access. Rather, educational quality in most countries in sub-Saharan Africa has been seriously compromised by rapid expansion given the limited resources.

In many attempts to ensure the delivery of quality education in developing countries, the thrust of delivery strategies has focused on increased allocation of inputs/resources to infrastructure development and supply of textbooks. However, the literature on the effect of such resources on student achievement is rather mixed and inconclusive with many studies noting that resources make little or no difference. While such approaches may be theoretically sound, most fail to focus on microelements at the school or classroom level such as capturing the teaching and learning experiences of both students and teachers and students. In an

attempt to fill this gap, a new line of research has emerged which looks more closely at how resources are used by schools to support and improve instruction.

This study follows this trend and examines the extent to which the Rehabilitation of the Basic Education Project (REBEP) in Sierra Leone contributed to improved learning and academic performance of students in five target schools after a series of interventions. Using a case study approach, the study revealed that while REBEP contributed to a significant increase in educational access, particularly for girls, performance in the terminal National Primary School Examination (NPSE) did not improve despite huge investments in the target schools.

The study concludes that, in the context of Sierra Leone, and perhaps in many more countries in sub-Saharan Africa, unless and until critical school-level factors are appropriately and comprehensively addressed by policy makers, educational standards and quality will continue to be eroded particularly in terms of learning and that achievement of critical EFA goals and MDG by 2015 would remain an unfulfilled dream.

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## CHAPTER 1

### INTRODUCTION

The Education for All (EFA) conference in Jomtien in 1990 triggered off considerable attention towards improvements in basic education in developing countries particularly in sub-Saharan Africa. In 2000, the EFA conference in Dakar ushered in renewed momentum for, not only achieving universal access to education for all children including girls and the marginalized, but also the improvement of “all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills” (UNESCO, 2000, p. 8).

While considerable progress has been made in most countries in sub-Saharan Africa in terms of expanding educational access, particularly for girls, efforts specifically directed at ensuring improvements in learning achievement have not matched the drive to expand educational access. In 2006, the NER in sub-Saharan Africa stood at 70% compared to 56% in the late 1990s (EFA Global Monitoring Report, 2009). During this time, educational quality in a considerable number of countries in sub-Saharan Africa was seriously compromised by rapid expansion especially in countries riddled by conflicts. Specifically, the EFA Global Monitoring Report 2009 indicates that while many countries have made significant progress towards attaining universal access for children by 2015, efforts directed at delivering quality education continue to prove elusive and far more critical for the majority of developing countries. It notes that a key problem with delivering quality education has been the differences in defining and conceptualizing quality, and developing strategies appropriate to both the political, economic, and socio-cultural contexts of developing countries.

Further, in the context of sub-Saharan Africa, standards may not only be deteriorating as a result of rapid expansion in the face of limited resources, the systems for measuring

learning outcomes as an indicator of quality may not exist. The EFA Global Monitoring Report 2009, for example, notes that 29 countries are far from meeting the EFA goals with Education for All Development Index (EDI)<sup>1</sup> values below 0.80. The report notes that 20 of these countries in this group are in sub-Saharan Africa with EDI values below 0.60 in Burkina Faso, Chad, Ethiopia, Mali and the Niger. The reasons for the slow pace in progress towards achieving quality are far more complex and varied from country to country than policy makers had initially envisaged in Dakar 2000.

In a recent study of universal basic education, the Hewlett Packard Foundation (2003) notes that there is a growing recognition that the field of education continues to apply technical or rational solutions to an institution- schools- that are inherently political. This implies, according to the report, that interventions designed to respond to issues of access and quality need to take into account the social, economic, and political climate of each country and seek to build partnerships and networks with local actors and organizations in order to determine the best approaches to overcome the myriad challenges in universal quality education for all by 2015. It is these challenges, usually associated with the delivery of quality education, and the extent to which they affect learning achievement, that this study attempts to explore in a project in Sierra Leone that was specifically designed to improve educational quality after a ten year war.

### **Problem Statement**

In many attempts to ensure the delivery of quality education in developing countries, donors have essentially determined specific strategies and the conceptual frameworks driving such strategies. Many such strategies have focused on improved allocation of inputs and

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<sup>1</sup> The EDI is based on 4 indicators: a) UPE proxied by total NER; b) adult literacy proxied by literacy rate for 15 and above; c) gender parity and equality proxied by gender-specific EFA Index (GEI); d) quality of education proxied by survival rate to grade 5.

resources often considered critical for reaching a prescribed quality level. Most of the strategies or policies are embedded in the effective schools conceptual framework and school improvement theories of the 1980s and early 1990s, mostly articulated by donors such as the World Bank as the road map for intervention in the basic education sector (Lezotte & Bancroft, 1985; Anderson, 1991; Adams, 1993; Heneveld, 1994, 1996, Darling-Hammond, 1997).

In the case of the World Bank, these policies essentially constituted the basis of its support of the EFA conferences in 1990 and 2000. Over the years, the Bank's policy objectives for education have been simple and stable- universal primary schooling, and equality of access for girls and other disadvantaged groups. The World Bank continues to promote a variety of strategies for achieving these objectives including improving internal efficiency and building institutional capacity in the 1980s. It was only recently that the Bank aggressively supported girls' education, improving teacher education, creating achievement assessment systems, increasing community involvement, school autonomy, decentralization, and early childhood education (World Bank, 2006). Additionally, recent policy discussions around implementation of EFA within the context of the Fast Track Initiative (FTI) have increasingly focused on quality issues (FTI Annual Report, 2007). The report notes that most FTI countries have developed some capacity to measure how well students are learning. In fact, 27 out of a total 29 FTI countries providing data have participated in some national, regional or international testing initiative.

While it is widely acknowledged that the World Bank's country investment strategies significantly improved access to primary education through the construction of new schools and the reduction of other physical, financial, and social barriers, new research of World Bank projects designed to improve the quality of primary education in sub-Saharan Africa indicate marginal progress especially in terms of learning outcomes/achievements (Verspoor, 1989; Heneveld, 1994; Heneveld & Craig, 1996; World Bank, 2006). Based on an assessment of World

Bank supported projects in Africa, Heneveld and Craig (1996) note that the Bank's projects in primary education neglected implementation at the school and classroom level where they believe school effectiveness in terms of improved student learning outcomes should be judged.

More recently, a new evaluation report by the World Bank's Independent Evaluation Group (IEG) indicates that whereas about 69% of projects in the study sample in 12 countries reached their enrollment expansion goals, the sub-goal of achieving improved internal efficiency as part of the universal completion strategy was underemphasized in bank supported projects even in countries with very poor efficiency records (World Bank, 2006). It further notes that where improving internal efficiency "was an explicit objective, only about a quarter of Bank supported projects were successful" (p. x). It concludes that the poor delivery of educational services was at the root of low student performance, and much of that can be attributed to weak sub-sector management, including weak incentives for improving learning outcomes. The report recommends, amongst other things, that "primary education efforts need to focus on improving learning outcomes, particularly among the poor and other disadvantaged children", and that "efforts are urgently needed to improve the performance of sector management in support of learning outcomes" (World Bank, 2006, p. x).

Until the release of the report by Verspoor (2003) which was funded by ADEA and the World Bank's IEG report in 2006, very little research outside such institutional evaluations had been carried out by independent researchers to assess the impact of programs on learning achievement/ outcomes as part of a country strategy to deliver quality education. When studies on school quality are initiated, they have quite often sought to examine the link between school resources and one or more quantitative indicators-pupil/teacher ratios, gender parity, gross enrolment rate, net enrolment rate, retention and completion rates, transition rates, and examination scores (Verspoor, 2003). Further, the literature on the effect of resources on

student achievement is rather mixed and inconclusive with many studies concluding that resources make little or no difference (Heneveld & Craig, 1996). However, in many instances, the studies have focused on undifferentiated resource measures such as total expenditures per pupil or teacher salaries (Fermanich, 2003). In order to fill this research gap, a new line of research has emerged which looks more closely at how resources are used by schools to support and improve instruction or when assessing the effect of resources on learning achievement.

Moreover, research studies focusing on the linkage between school inputs and learning attainment in developing countries is very limited and inconclusive in terms of findings. Ironically, a good proportion of studies carried out in developing countries concluded that school inputs significantly affect student outcomes. This ultimately implies that an increase in school spending is most helpful in relatively poor areas compared to developed countries like the United States. Thus, considering the level and variation of spending in most developing countries following the EFA conference in Dakar 2000, it would seem particularly useful to study the effects of school inputs in a developing country context. The increase in spending is demonstrated by the renewed focus policy makers have placed on basic education since 2000. These policies include support for inclusion of two of the eight Millennium Development Goals (MDGs), the Fast Track initiative (FTI), and more recently through the development of the Progressive Framework for facilitating support to so-called fragile states.

Furthermore, early education production models such as those developed through studies funded by the World Bank (Heyneman 1976, 1990; Lockheed, 1991) and USAID's (1994) model sought to address school quality and effectiveness as the main pillar of interventions. These models approach the issue of quality mostly in terms of inputs in a macro context and their relationship with specified outputs. While such approaches may have been theoretically sound, they however, did not focus on micro elements such as the school or classroom and the

ensuing interactions and processes that happen on a daily basis. In effect, the approaches did not fully capture the teaching and learning experiences of both teachers and students; hence they could not produce the desired effect on learning achievement.

Notwithstanding the failure associated with such strategies, developing countries continue to utilize these models in order to attain the EFA and MDG goals for 2015. A case in point is the REBEP project, which was initiated by the government of Sierra Leone in partnership with the World Bank, African Development, and DFID. Through its design and espoused strategy, REBEP provides a good example for examining the effectiveness of the underlying causal relationship between school inputs/interventions and learning achievement, if any. Further, the REBEP project is unique in several aspects particularly in terms of its design, program strategy, and the supporting conceptual framework and fits the framework for analysis of quality education delivery strategies.

Finally, the limited research on school effectiveness and improvement in developing countries, particularly in sub-Saharan Africa, suggests a need to fill this knowledge gap. Thus, an assessment of the contribution of inputs as outlined in the REBEP project on education quality, and specifically, on learning achievement, will provide useful insights for researchers, educators and policy makers keen to initiate vital reforms in the fledging education sector in sub-Saharan Africa. Given such a scenario, there has been the expectation that following Dakar 2000, donor efforts and resources will be directed at improving learning achievement in developing countries in tandem with expanding access as spelled out in the EFA and MDG goals. It was, perhaps, in this context that the Rehabilitation of the Basic Education Project (REBEP), referred to locally in Sierra Leone as SABABU was conceived, developed and funded since 2003. After six years of implementation, did the project achieve these objectives?

## **Purpose of the Study**

This study therefore seeks to investigate the extent to which the Rehabilitation of the Basic Education Project (REBEP) in Sierra Leone contributed to expanding educational access and improving learning achievement in selected targeted schools within the context of the Dakar 2000 EFA Framework of Action. Specifically, the objective of the study is to assess the effects of the REBEP program strategy on selected education quality dimensions with specific focus on learning achievement in targeted schools. This strategy, described as Fundamental Quality Level (FQL), is anchored on the premise that educational quality can be achieved through specific inputs and interventions over time in schools. In the case of REBEP, it was assumed that targeted schools will achieve a basic operational level (BOL), a descriptor of the fundamental quality level, if the schools fulfill certain criteria. In its simplest form, the basic operational level or standard was defined as a safe, furnished school building; the presence of minimally trained teachers, at the recommended maximum student/teacher ratio of 40:1; a core set of textbooks for every child; and a functioning school support structure in the form of a school management committee or PTA and supportive district education office.

According to the REBEP project manual, as implementation of the project and the school system developed, the FQL would evolve with emphasis on process-related and quality-related outcomes. In order to monitor attainment of the basic operational level over time, a number of outcome indicators were proposed as a reflection of the fundamental quality level in each target school focusing on infrastructure, students and student materials, staff and staff materials and participation.

### **Research Questions**

This study therefore attempts to explore the following research questions:

- I. What specific interventions were undertaken in each target school?

- II. Did the target schools attain the basic operational level (BOL) as a measure of the Fundamental Quality Level (FQL)?
- III. What are the indications of improvements in learning achievement as defined by the NPSE in the target schools over the project cycle?
- IV. Are there any discernable trends in performance in the National Primary School Examinations (NPSE) before and after REBEP intervention in the selected target school?
- V. What are the policy implications for achieving relevant EFA and MDG goals by 2015 in Sierra Leone?

### **Research Approach and Methodology**

This research is essentially an evaluative study with the objective to determine whether the intended project outcomes- attainment of a basic operational level as an indicator of fundamental quality level- were achieved given the resources, services, and inputs. The study utilizes a case study approach in design because of the scope of the intervention, the need for an in-depth analysis of a bounded situation (Yin, 2001; Merriam, 1998), and the “desire to understand complex social phenomena” (Yin, 2001, p. 2). By using case studies, I sought to understand the larger phenomena of strategic options to deliver quality education and resource allocation since it allowed for intense scrutiny of a specific case or situation in a “descriptive, holistic, heuristic and inductive” (Rossman & Rallis, 2003, p. 104) manner. Thus five REBEP supported primary schools and one school that did not receive support was selected through purposive sampling. In order to ensure intense scrutiny of each case, I used mixed-methods to fully understand the complex issues at play and any potential relationships between the variables. Understanding of these variables was necessary for determining the achievement of project outcomes and isolating the factors that contributed to the process.

Further, quantitative and qualitative methods were used concurrently to enable deeper exploration, explanation, analysis of each case, and cross-case analysis (Miles & Huberman, 1994) of the selected cases. Quantitative data was collected through a series of questionnaires administered to different stakeholders followed by the collection of secondary data from REBEP

project reports and the West African Examinations Council (WAEC) for results of the National Primary School Examinations. Qualitative data on the other hand was collected through interviews, observations, focus group discussions, photo-voice, and field notes. I was convinced that collecting and analyzing data from these diverse sources would enhance triangulation of results (Creswell, 2003) and reliability of the findings. The bulk of the data was collected over six weeks in Sierra Leone and online with additional data obtained while writing the report in 2009.

Finally, for purposes of data analysis, I chose a concurrent strategy over a sequential strategy in an “attempt to confirm, cross-validate, or corroborate findings within a single study” (Creswell, 2003, p. 217). The strategy allows for integration of the results during interpretation and analysis of the data either by noting points of convergence of the findings or attempt explanation of the lack of such convergence. This strategy tied in with the issue of the apparent lack of homogeneity in each case in terms of inputs, levels of intervention, location, and school population which could significantly affect comparability and analysis. Further, extensive use was made of tabulations, cross-tabulations, and graphs for data presentation and for case analysis.

### **Significance of the Study**

My first experience with issues related to educational quality dates back to my stint as project officer with UNICEF (Sierra Leone) where I had been recruited to help with the organization’s recovery efforts in the education sector. At the time, UNICEF was the leading agency in education and had been charged with designing programs to address the myriad problems in the sector. These problems included responding to the needs of an estimated 100,000 over-aged children that had either dropped out of school or had never attended school because of the ten year war through an accelerated learning program. Additionally, UNICEF was charged with responsibility to restore sanity in the formal education sector including building

the capacity of the ministry of education at national and district levels, training inspectors and supervisors of schools in the 12 districts, and training teachers in primary schools. The intervention also included school construction and rehabilitation, supply of school furniture, textbooks, learning materials and temporary shelter materials.

As staff directly in charge of UNICEF's emergency response in Sierra Leone from 2000 to 2003, I took part in baseline assessments of damaged schools and education infrastructure throughout the country. During monitoring visits to schools supported by UNICEF, we discovered that despite enormous resources provided to the schools, the instructional practices of teachers, 51% of whom were untrained and unqualified, were appalling and ineffective. Across schools, teachers taught lessons without schemes of work and lesson plans; used one or two methods for teaching which was mainly lectures and not child-centered. The heads of schools hardly carried out supervision of teachers while district education officials lacked capacity to train or supervise teachers in schools. In short, educational quality was seriously eroded particularly in rural areas.

These challenges, coupled with the poor conditions of service for teachers, provided UNICEF with reason to initiate a mini-project in collaboration with the university, teacher training colleges, and NGOs targeting teachers in primary schools. This pilot program- the Teacher Development Initiative- focused on improving the pedagogical practices of teachers particularly in the use of child-centered participatory methods in 14 target schools in the Western Rural district. The pilot project utilized an action-research approach with in-built monitoring mechanisms at the class and school levels followed by consultant visits on a regular basis. As part of the project, teachers were trained to engage local communities and resources and schools were supplied with relevant textbooks, learning materials and stationery. Although implemented for only twelve months, it was acclaimed as one of the most successful initiatives

in post-war Sierra Leone to the extent that it eventually became the precursor to the REBEP project in 2002 after positive reviews by the Ministry of Education. One such measure of success was the reported increase in community involvement in school activities such as talks on human rights by the local police unit; an improvement of the performance of girls in Science and Mathematics, improvement in teacher and pupil attendance, and increased use of child-centered methodologies by teachers.

This experience, coupled with the responsibility to serve as the focal point at UNICEF for an interagency sub-committee on education comprising UNHCR, WFP, IRC, and NRC further triggered my interest in issues of quality in education. Above all, while enrolled as a graduate student at the Center for International Education (CIE), University of Massachusetts-Amherst, I took courses in teacher development, policy issues in international education, development theories, and strategies for institutional change which provided the necessary theoretical and conceptual foundations for understanding, analyzing, and interpreting issues around quality from multiple perspectives. Thus, this research study is a constellation of multiple sources of knowledge and experiences required for critical analysis and discourse on educational quality, particularly in developing countries in light of the EFA and MDG goals.

In this regard, this study is significant in several respects; first, the findings have implications for future programming strategies geared towards delivering or ensuring quality education in low resource countries. Current intervention models emphasize expanding educational access through infrastructure development while downplaying investments and approaches that directly address classroom instructions, quality assurance, and learning achievement. This study captures the consequences of such a strategy on learning achievement and school performance.

Secondly, as an evaluative study, the research would not serve its purpose if findings are not utilized by major stakeholders. Consequently, its significance lies in its worth for future reform of the primary education sector as a first step and later the entire education system. Such a call for reform comes on the heels of a commission set up in 2008 by the government of Sierra Leone to investigate and identify the reasons for the poor performance of pupils at all levels of the education system. It is hoped that the findings of the study will be utilized by the Ministry of Education, the REBEP project steering committee, the basic education commission, the teachers' commission, participating NGOs and international agencies, the donors-World Bank (IMF), African Development Bank (AfDB) and DFID for policy making. Above all, the findings will hopefully be utilized by both head teachers and teachers in the sample schools and other primary schools. To ensure such wide spread use, the findings will be disseminated countrywide through appropriate channels and workshops.

Finally, the study has considerable significance for future research in this field considering the dearth of research on school effectiveness and improvement approaches in developing countries, particularly in sub-Saharan Africa. Specifically, the study provides insight into the effects of certain interventions and inputs on education quality and by extension on learning achievement for educators and policy makers. It is also hoped that the study will highlight new directions in the research on quality education and what interventions and inputs are critical for improving quality in low resource contexts so as to maximize opportunities for learning.

#### **Limitations of the Study**

This study is evaluative and exploratory; hence there are limitations. The most obvious was the limited scope and depth of the study with respect to the sample size. At the time of data collection, the number of REBEP targeted schools had been significantly expanded to 289

primary schools and 100 junior secondary schools on full grant support, and an additional 944 primary and junior secondary schools on partial grant support. The attempt therefore to focus on 5 beneficiary schools posed serious methodological challenges in terms of representativeness of the sample size. To overcome this challenge, I chose a case study approach such that the findings can only be applied to the specific settings and cases chosen purposively.

Moreover, the data was collected over a six weeks period which time is by all account limited. Given that implementation of the REBEP project commenced in 2003, it may be presumptuous to assume that six weeks of intensive research and data collection would capture every element and nuance of the implementation process. Thus the issue becomes whether such a time period was adequate enough to make “judgment of merit, worth, value, or significance” (Rallis & Bolland, 2005, p. 7). To address this challenge, extensive triangulation of data was undertaken in the analysis of data and conclusions. Furthermore, while the study seeks to relate the achievement of project outcomes in each case to school performance as measured by performance in the NPSE, the intention is not to establish any causality considering that learning achievement is a result of multiple factors. Existing literature cites factors such as home environment, parents’ socio-economic status, student motivation, resources, teacher related factors, etc. Most of these factors are unrelated to the kinds of inputs REBEP provided to ensure attainment of the fundamental quality level. It is also likely that any established correlation between the project inputs and outcomes might not be conclusive or attributable to any single factor or set of factors being investigated. Finally, the national primary school examination does not measure learning per se since and national assessment has yet been carried out; hence the data on performance is only a proxy. As I reached my conclusions, I was keenly aware of these limitations and never once thought about generalizing the findings.

Nevertheless, I have full confidence in the integrity of this research study; hence I chose a case study approach since my purpose was to be exploratory and descriptive. Most importantly, a key principle that guided the study was the desire to ensure both the trustworthiness and integrity of the process and validity of the findings.

### **Chapter Summary**

Chapter 1 provides a brief introduction of the research highlighting the background of the study, the problem statement, the purpose of the study, research questions, approach and methodology, and significance of the study. In Chapter 2, I examine the study context with specific focus on the history of education before and after the war, the new education sector plan and the origins of the REBEP project. In Chapter 3, I examine the genesis of global efforts and impetus to address issues of educational quality and the conceptual underpinnings driving these efforts culminating in the Dakar 2000 EFA framework of action.

Chapter 4 focuses on the research approach and methodology highlighting the rationale for choosing a case study approach. It explores alternate research approaches and articulates the advantages of using a mix-methods approach for the study. Chapter 5 presents data and findings at the broad project level. It commences with a detail look at the context of REBEP project, the strategy, and project outcomes. The chapter concludes with data on the status of implementation and analysis of progress made towards achievement of project outcomes. In Chapter 6, a detailed examination of REBEP intervention in five targeted schools is presented followed by data on school performance at each sampled school. The chapter concludes with a broad analysis of project outcomes and a cross-case analysis of the major findings in the case studies. Chapter 7 summarizes the main thrust of the research study, highlights challenges and prospects and draws conclusions from the findings. The chapter ends with a series of recommendations and forecast for future research.

## CHAPTER 2

### STUDY CONTEXT AND BACKGROUND

#### Geo-Historical Context

Sierra Leone, a small country with a total area of about 27, 699 square miles and a population of about 6.2 million (CIA Factbook, 2007) is a former British colony which gained independence on the April 27, 1961. Following the abolition of slavery in 1787, British philanthropists founded Freetown to host freed and runaway slaves. Freetown later became the capital of Sierra Leone after the country was declared a British crown colony in 1808. The continued domination by the British attracted resistance from indigenous tribes and political activists leading to concessions and eventual political independence with the leader of the Sierra Leone Peoples Party (SLPP), Sir Milton Margai, becoming its first Prime Minister in 1961. Other political parties such as the All Peoples Congress (APC) later emerged in the late sixties, mostly along ethnic and regional lines giving rise to ethnocentrism and political instability.

Historically, post-independence Sierra Leone has had its fair share of a troubled political environment characterized by at least six military coups and counter coups. Also, Sierra Leone experienced one of the most brutal and horrific civil wars in modern history from 1991 to 2002, a period that was characterized by endemic corruption, economic decline, institutional instability, and poor governance. The early post-independence period was marked by optimism and rapid change in the education sector with support by the government backed by a sustained economic growth. Economic growth reached 4% in the first decade after independence in 1961 but this deteriorated in the 1970s and 1980s due partly to poor governance, gross mismanagement, and pervasive corruption by the political elite. In the late 1980s, the government introduced macroeconomic reforms in line with the International Monetary Fund (IMF) and World Bank policies (PRSP-SL, 2005).

However, the onset of a brutal civil war in March 1991 derailed this economic recovery program as the economy plunged to an average rate of  $-4.5\%$  per annum between 1990 and 2000 (PRSP-SL, 2005). According to the PRSP document, the level of poverty increased dramatically as the economy declined, becoming even more pervasive and intensive in the 1990s. Sierra Leone went through five military coups, and a brutal armed conflict that lasted for over ten years (March 1991-January 2002). The conflict was triggered primarily by poor governance, pernicious and widespread corruption, the marginalization and disempowerment of rural communities, the introduction of a one party dictatorship in the 1970s, and an inefficient central government intervention in the delivery of public services. Moreover, the country's unfavorable terms of trade, based exclusively on the export of limited and unprocessed primary commodities-diamonds, iron ore, bauxite, cocoa, coffee, palm oil, etc- as well as adverse social effects of a declining world economy only exacerbated the crisis. On the economic front, annual growth averaged about  $4\%$  and  $3.5\%$  in the 1960s and 1970s respectively. Growth slowed dramatically to an average of  $1.5\%$  in the 1980s, largely on account of misguided economic policies and economic mismanagement.

By 1995, the civil war intensified leading to massive displacement of over 2 million of people, the death of an estimated 100,000 people, and the destruction of most of the country's social, economic, and physical infrastructure. In a report compiled by the National Recovery Committee in 2002, an interagency forum, an estimated 75% of government infrastructure were destroyed in the war; about 85% of school infrastructure was damaged or vandalized; over 20,000 children were abducted to serve either as child combatants for the fighting forces or as sex slaves, and a once growing and buoyant economy was in shambles (National Recovery Strategy Report, 2002). The war contributed immensely to a further drop in educational access, efficiency, and quality as the entire education system crumbled in almost every part of the

country except the capital Freetown. Other social sectors were equally affected including extensive damage to health clinics, hospitals, roads, and public utilities.

Following the official declaration by the government of the end of the civil war in January 2002, critical steps were taken to usher in a new era of political engagement, civic participation and good governance. These efforts included the conduct of four major post war elections - two general elections in 2002 and 2007), and two local government elections in 2004 and 2008. Moreover, new policies and legislations, including the Local Government Act 2004 and The Education Act 2005 were either formulated or enacted in furtherance of good governance and development (UNDP Sierra Leone, 2008). Despite progress on some of the above initiatives, political tension and intolerance for genuine political and ideological dissent and divergence remains very high. In a report compiled by the UNDP (Sierra Leone) titled - *Strengthening Democratic Governance*, it notes that “In spite of these amazing progress made, continuing review and analysis of the postwar democratic environment revealed that several other challenges” (UNDP Sierra Leone, 2008, p. 5) remain unresolved and therefore required the UNDP continued intervention in Sierra Leone. The report highlights a number of challenges and areas of concern with respect to good governance including the weak capacity of key national institutions to formulate, implement, and monitor policies and programs effectively. As an example of these concerns, political violence erupted on March 14 and March 16, 2009, when elements of the ruling political party, the All Peoples Congress (APC) and paramilitary forces closely aligned with the office of the president attacked the opposition Sierra Leone Peoples Party (SLPP) headquarters. At the time of writing in 2009, sporadic violence erupted in various parts of the country (Awareness Times Newspaper, May 17, 2009).

Indeed incidences of political instability have implications for the failing education system since such acts of violence are usually perpetrated by semi-literate and unemployed

youths who dropped out of school for one reason or another. Clearly, there is an apparent linkage between the failing education system, a rapidly declining economic environment, the lack of hope in the larger system, and the ensuing political instability pervading in the country. An examination of the macroeconomic context indicates how education reforms and policies have over the years been stifled because of the lack of funding to support programs.

### **Macro-Economic Context**

The GDP per capita nearly halved during the period 1980 to 2000, plummeting down to US\$142 in 2000 (SL-PRSP, 2005). Further, about 82% of the population lived below the poverty line with a Gini Index of 66, a figure that was considered the most skewed distribution in the world by the IMF. Despite its vast mineral wealth and rich natural resources, Sierra Leone has been ranked consistently as one of the least developed countries in the world by the United Nations since 2000. Most recently, the country was ranked 177/179 of all nations by the UNDP Human Development Report (2009). The poverty situation has not been helped by the rising incidence of HIV/AIDS, estimated at 4.9%, typhoid, malaria, and other communicable diseases including tuberculosis and massive youth unemployment and the global economic crisis.

In 2000, an economic recovery strategy was developed which resulted in an unbroken growth into 2008 with real GDP growing by an estimated 5.5% in spite of a deepening global recession marked by high food and fuel prices. According to the World Bank (2008), the current growth is partly attributable to “remittances and investments from the Sierra Leone expatriate community, selected mining investments, notably in rutile and bauxite, and by foreign aid” (World Bank Country Brief-Sierra Leone, 2008, pp. 12). The report identified the informal sector as the source of growth, mainly agriculture, fishing, mining and the service sectors. Further, overall fiscal balance grew from -10.6% of GDP in 2001 to -6.7 percent of GDP in 2003 and later

to an estimated -2.0 percent of GDP in 2007. Further, the country's external reserves reached an all time high of US\$209 million in 2008 (World Bank Country Brief-Sierra Leone, 2008).

As a result of this positive economic performance, a favorable external current account deficit financed mostly through concessional assistance and debt relief by donors, Sierra Leone attained the 'Completion Point' under the Enhanced Heavily Indebted Poor Countries (HIPC) initiative. Through this HIPC initiative, the country qualified for a total debt relief of an estimated US\$1.6 billion spread over a period of 30 years. This relief was timely as it facilitated the release of more funds to the social sectors particularly education and health. However, the improved fiscal balance did not continue beyond 2007 due partly to rising recurrent spending arising from high fuel and food costs, and unbudgeted expenditure in the power sector in 2007. Currently, there is a deficit of 3.4% of GDP; consumer price inflation, and a depreciating exchange rate of Le.3, 900 to the US dollar in October 2009 compared to Le.2, 800 to the US dollar in December 2008. Above all, the World Bank reported that the Treasury bill rate fell significantly to 9% in 2008 from an enviable 21% in 2007. This situation has serious implications for budgetary and resource allocations to sectors like education and fulfillment of government's commitment to meeting the EFA goals and the MDG by 2015.

In brief, the REBEP project was developed to redress some of the fundamental problems in the education sector before and after the ten-year war. These problems included the need to provide safe learning environments, improve access particularly for girls, and ensure the delivery of quality education. We next examine the education system in Sierra Leone.

### **History of Education in Sierra Leone**

The history of education in Sierra Leone is closely associated with its colonial lineage with Britain. The introduction of western education commenced in the 18<sup>th</sup> century following the abolition of slavery. The declaration of Sierra Leone as a crown colony in 1808 laid the

foundation for British investments in education which culminated in the transfer of control to Christian Missionaries, specifically the Church Missionary Society (CMS) which arrived in 1804. The system of education as well as the curriculum was patterned essentially after the British system. This may not be surprising considering that the CMS received direct financial support from the British government. While religion and philanthropy was the mantra for the CMS, education became the vehicle to attract converts for almost a century.

After years of evangelization, the CMS opened a school which eventually evolved into an institution called Fourah Bay College (FBC) in 1827 to serve as a feeder to a college in England where students would obtain higher education. Undaunted by these efforts, later missionaries founded a new boy's school called the CMS Grammar School in 1845 which became the oldest secondary school in West Africa. After years of excellence and scholarship, FBC became known as the "Athens of West Africa" because of a "strong focus within its curriculum on learning Greek and Latin and because of the unparalleled success of its graduates at home and abroad" (Paracka Jr., 2003, p. 3). FBC was the oldest western-style college in Africa attracting students from as far as Nigeria, Ghana, Cameroun, Kenya, Uganda, Tanzania, and Zambia.

At independence in 1961, Sierra Leone inherited a refined British-type education system, aimed largely at producing an elite urban middle class. The system was structured exclusively towards academically gifted students who would later enter tertiary institutions and find employment in government departments (Education Sector Plan, 2007). Although politically independent, Sierra Leone continued to maintain both the content and structure of British education. English was declared the official language of the country; it was to be the language of instruction in schools, colleges and university, and of the media and administration. Moreover, while educated Sierra Leoneans took leadership roles in schools and higher institutions of learning, no substantial changes were made to the curriculum structure and content left behind

by the colonial administration. Although standards were high especially up to a decade after independence, it became clear that the curricula at the various levels of the educational structure did not meet the current needs of Sierra Leone. Besides, the newly independent government became increasingly challenged in terms of resources to continue the level of support provided earlier by the colonial administration. This was a recipe for the subsequent fall in standards across the education spectrum in the post-independent period.

### **Development of Education after Independence**

The declaration of independence in 1961 brought in much anticipated optimism and desire for change not only in the education sector but also in other development sectors. This euphoria came on the heels of the conference in Addis Ababa that saw the adoption of the Charter on Education in 1961. After the conference, newly emerging nations opted to expand access to education through increasing enrollment. In Sierra Leone, enrollment grew significantly while missions retained control of the schools they founded. Further, a number of major policy changes followed including the enactment of the Education Act of 1964 which designated the Ministry of Education as the supreme authority in control of education in Sierra Leone; the White Paper on Education in 1970; the Education Review Act of 1976; the Task Force Report on Education in 1989, which prepared the stage for the change to the 6-3-3-4 system from the British styled 7-5-2-3 system; and the New Education Action Plan of 1995 which provided the road map for long term educational development.

The 6-3-3-4 system was introduced in 1993 amidst resistance from traditionalists who thought at the time it would lead to lower standards in schools. The system stipulates 6 years of primary schooling, 3 years of junior secondary schooling, 3 years of senior secondary schooling, and 4 years of college/university education. The system recommended nine years of a comprehensive basic education schedule leading to the Basic Education Certificate Examination

(BECE). The BECE certificate is required for transitioning to senior secondary school (SSS).

However, implementation of the reforms proposed in the 1995 Education Action Plan was seriously hampered by political turmoil and the outbreak of the civil war in 1991 followed by a military coup in 1992.

### **Education Sector in the Post-war Era**

With the end of the war in 2002, enrolment in primary and secondary schools expanded significantly partly due to the improving security environment and government's declaration of a partial free primary education policy in 2000 in order to increase access. In 2004, the government introduced free JSS education for girls in the Northern and Eastern Regions, areas which had skewed gender disparities in enrolment. Further, measures were taken to subsidize the payments of public examination fees at the basic education level. However, the level of damage to the educational infrastructure did not allow for much expansion, hence the initiation of the Rehabilitation of the Basic Education Project (REBEP) in 2002. According to the interagency forum- National Recovery Committee, by 2002 an estimated 75% of government infrastructure were destroyed in the war, while an estimated 85% of school infrastructure was damaged or vandalized. As noted in the new Education Sector Plan (2007), the war contributed immensely to a further drop in educational access, efficiency, and quality as the entire education system crumbled in almost every part of the country except the capital Freetown.

It should be acknowledged, however, that much progress has been made in the management and governance of the education sector since 2002 including the introduction and enactment of three new bills in parliament. The bills were the Tertiary Education Commission (TEC) Act; the Polytechnic Act, and the National Commission for Technical/ Vocational and other Academic Awards (NCTVA) Act. Moreover, in 2009, the government set up the Gbamanja commission of inquiry to investigate falling standards at the JSS and SSS levels. The commission

made several recommendations including the need to change the education structure to 6-3-4-4 (6 years primary, 3 years JSS, 4 years SSS, and 4 years of tertiary education) and the establishment of a teachers commission. The government released a White Paper in 2010 accepting most of the key recommendations.

### **The Current Status of Education**

The Education Act of 2004 brought all educational institutions under the direct control of the Ministry of Education with expert advice from a number of bodies and officials such as the Basic Education Commission, the Tertiary Education Commission, and the National Commission for Technical/Vocational Education. Above all, the onset of recent decentralization reforms in all sectors at the national level has resulted in attempts to devolve management of basic education to local governments. However, this policy remains more rhetoric than a practical reality especially in the education sector.

Access to reliable and current education data is a major challenge both for planning purposes and for monitoring and evaluation of ongoing programs and initiatives. As part of the Ministry of Education's recently adopted Education Sector Plan-2007 (ESP), priority was given to the establishment of an Education Information Management System (EMIS) in the Planning Division. According to the ESP 2007, by the end of academic year 2003/2004, over 1.3 million primary children were registered of which 54% were boys and 45% were girls compared to 59% and 41% respectively in 2002 (Education Sector Plan-SL, 2007). Moreover, the Net Enrolment Rate (NER) improved from 42% in 1990 to 63% in 2004; while the Primary Completion rate fell below 60% nationally, and gender disparities became more pronounced. The Gross Completion Rate (GCR) for males was 63.9% compared to Female GCR of 47.6% in 2004. The new Education Sector Plan (2007) also acknowledged for the very first time in the history of education in Sierra

Leone that the overall index of efficiency was 0.58 based on both the dropout and repetition rates. Such a low index of efficiency suggests considerable waste of much needed resources.

Further, the destruction of school infrastructure during the war exacerbated the problem of inadequate infrastructure especially classrooms causing overcrowding in almost 75% of public schools. The Ministry of Education even noted that this problem contributed to poor educational quality in the country. There are also large numbers of untrained, unqualified, and uncertified teachers in the system. Nationally, 40% of teachers are untrained and unqualified, and in the Northern region, over half of all teachers are unqualified (ESP 2007). Furthermore, there is high pupil/teacher ratio, with the national average at 66:1 per teacher, and 112:1 per qualified teacher in primary schools (Table 1). Over the years, there has been an obvious need to hire more qualified teachers, but an imposed ceiling on teacher employment as part of IMF requirements for funding support has made any new hire almost impossible. Schools can only replace teachers who either retire or resign or leave for further studies. The 6-3-3-4 education system (Figure 1) was replaced with 6-3-4-4 by government in a White paper in August 2010.

Table 1: Education at a Glance-Sierra Leone

Indicator	2005	Male	Female
<b>Primary</b>			
GNI per capita (US\$)	260	-	-
Adult Literacy rate (%)	35	47	24
Gross Enrolment Ratio-Primary (%)	147	155	139
Gross Intake Rate – (%)	180	188	172
Primary Repetition Rate (%)	10.1	9.9	10.3
Primary Drop Out Rate (%)	46.5	46.2	46.9
Primary Completion Rate (%)	81	92	70
Expected Primary Completion Rate (%)	52	51	52
Primary Age Children Out-of School	513,000	250,000	262,000
Primary Gender Parity Index (GPI)	0.90	-	-
Pupil/Teacher Ratio-Primary (All Trs.)	66:1	-	-
Pupil/Teacher Ratio-(Qualified Trs.)	112:1	-	-
<b>Secondary/Technical/Vocational</b>			
Gross Enrolment Ratio-Secondary (%)	32	38	26
Gross Enrolment Ratio- Lower Sec. (%)	46	54	37
Gross Enrolment Ratio- Upper Sec. (%)	17	20	14
GRE- Vocational/Technical (%)	4.6	0.0	0.1
Secondary Gender Parity Index (GPI)	0.69	-	-
Pupil/Teacher Ratio-Lower Secondary	29:1	-	-
<b>Tertiary</b>			
Tertiary Gross Enrolment Ratio (%)	2.1	3.0	1.2
Tertiary Graduates in Science	2.0	-	-
Student/Lecturer Ratio	20:1	-	-
<b>Education Financing</b>			
Public Education Expenditure (% of GDP)	3.8	-	-
Public Education Expenditure (% of Gov. Spending)	18.9	-	-
Education Spending by Level-Primary	48.0	-	-
Education Spending by Level-Sec	24.9	-	-

Sources: World Banks EdStats Country Profiles based on data from UNESCO Institute for Statistics, World Bank, DHS, IMF Country Brief. Data are from 2000-2005. Note: Last Updated in July 2009

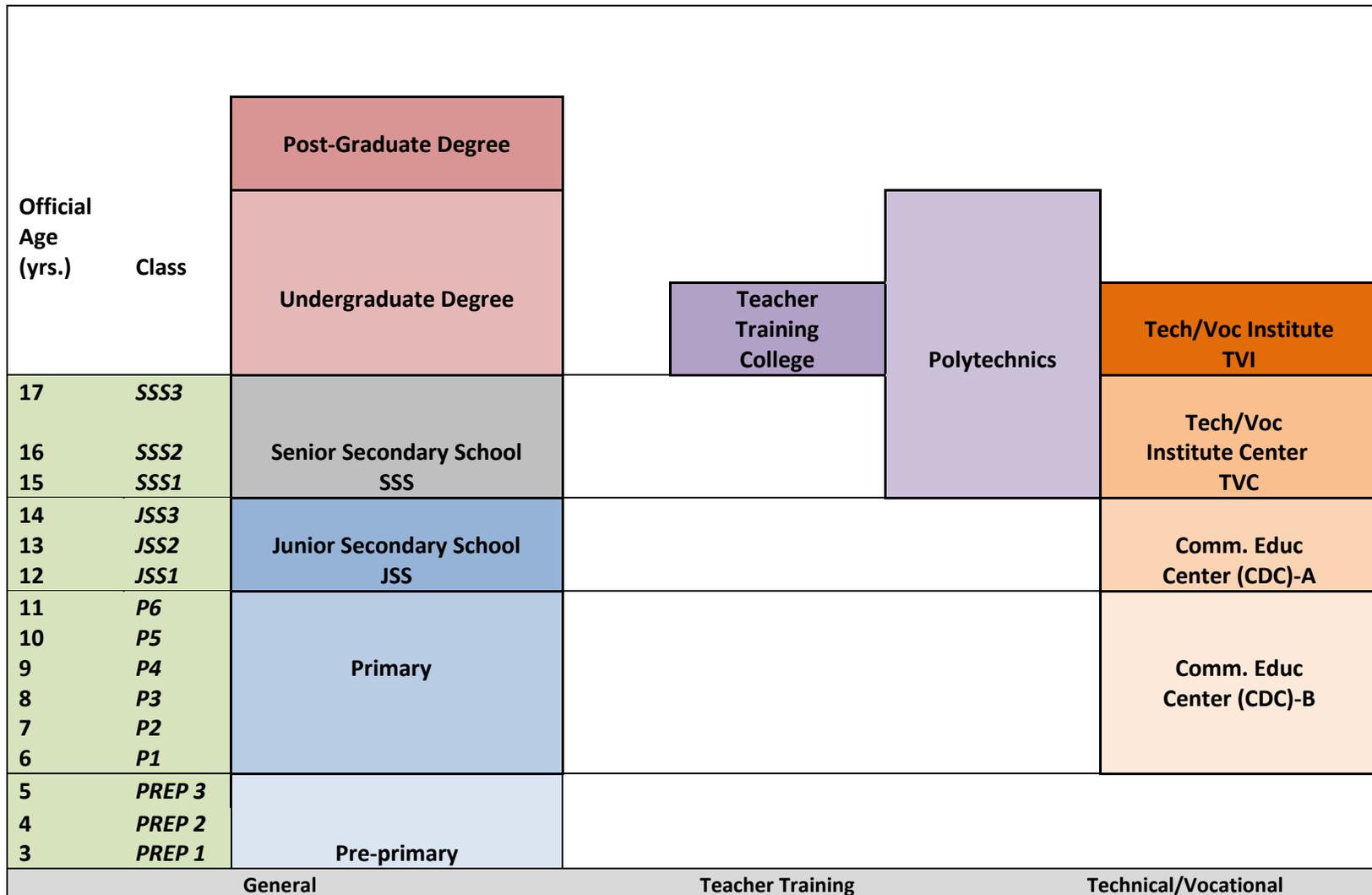


Fig 1: Structure of 6-3-3-4 Education System (1993-2010)

In line with the restructuring of the education system, a local governance reform act was enacted in 2004 which had significant implications for the education sector in general. The act, which focused on the management and control of basic education, required devolution of management and governance authority to local governments. The Ministry of Education was mandated to focus its energy on monitoring and policy making for all sectors as well as retaining management responsibility for senior secondary and tertiary education. As noted earlier, the governance reform was part of wider efforts at a state-wide decentralization process with the objective “to improve overall financial and administrative efficiency, political participation, and economic and social development” (World Bank, 2007, p. 134).

However, realizing that the process of devolution in the education sector could become a problem, the Ministry of Education moved rather cautiously with the decentralization agenda. One obvious challenge was that the lines of authority, reporting, and accountability required more explicit definitions. Moreover, there was an ever widening capacity gap between headquarters on one hand, and the regions and districts on the other. Nonetheless, decentralization has been pursued on an ambitious 3-year schedule, which started with the devolution of the management of District Education Councils (DEC) and city/town council schools in 2005. According to the schedule, the control and supervision of all preprimary, primary, and junior secondary schools should be under the purview of local councils by 2008. The accompanying Statutory Instrument No. 13 of the Local Governance Act (LGA) outlined the schedule of activities to be devolved which should have commenced in 2005. According to this schedule, management and control of primary and junior secondary schools, including recruitment and payment of teachers, provision of textbooks and teaching materials, payment of school fee subsidies, and school supervision should move from the central to the local level. The head office of the ministry of education will play the role of monitoring performance of the

activities of the local councils while focusing on policy making. In order to ensure this process, a number of new positions were created or departments reorganized such as the change in designation of district education officers from inspector of schools to deputy directors, and the appointment of District Education Committees (DEC) and School Management Committees (SMC). Other critical actions taken by the government in the education sector include:

- Established the National Council for Technical (NCTVA) in 2001, which validates vocational education and teacher training and accredits technical and vocational institutions;
- Established the Tertiary Education Commission (TEC Act 2001) for the development of tertiary education;
- Enacted the University Act (2005) which provides for the dissolution of the previous unitary university system to the reconstitution of two universities-Njala University College and the University of Sierra Leone. This act allows for university autonomy in matters of administration and academics and the creation of private universities (Education Sector Plan, 2007).

It may be too early to evaluate the potential effects and impact of these reforms on the country's education system. However, there is growing concern that the new education system may not have had the desired effect on educational quality and specifically on learning achievement at various levels. As recently as May 2009, the government constituted a commission of inquiry to look into the causes of low standards at the secondary and tertiary levels. This followed reports by the West African Examinations Council of the poor performance of high school students in the 2008 national examinations. According to the reports, 23,104 students registered and participated in the examination in 2008. The data indicates that only 3.44% of the total registered students passed Mathematics with (Grade D or higher). In English Language, only 7.8% scored a pass. Of the 39 subjects examined including English language and Mathematics, there were only 7 subjects in which candidates had a cumulative pass of 40% and above, that is, French, Core Science, Physical Education, Applied Electricity, Metal Work, Woodwork, Food and Nutrition (WAEC-SL, 2008).

The performance at the individual school level was even more alarming; only one secondary school had 18 candidates with credits in nine subjects as reported by the West African Examinations Council. The results were appalling considering the minimum requirements for admission to university or colleges which is credits (Grade C and above) in at least five subjects including English and Mathematics. For some educationists, this may only be the tip of the iceberg and that action was needed to redress the poor quality of education across the entire education spectrum. Consequently, the government set up a Commission of Inquiry in May 2009 charged with the responsibility to investigate the cause(s) of the decline in education with emphasis on the BECE and WASSCE examinations. The Terms of Reference of the commission included the investigation and identification of the reasons for the poor performance of pupils in the 2008 BECE and WASSCE in Sierra Leone; particularly the role played by the school environment; home environment; curriculum; teachers and their attitudes and methodologies; teachers' motivation; pupils' preparedness; class sizes; the two-shift system; tertiary institutions (USL/NU/MMCET/NP/EP/FTC/PLTC); proprietors; Head teachers/principals; Ministry of Education officials; and other Social factors (GOSL White Paper, 2008).

It is worth noting that the commission's terms of reference did not specifically include primary education and investigation into aspects of quality at that level. The reasons for this may not be clear but it is probable that the government believes that educational quality at the primary school level is satisfactory considering recent investments through the REBEP project. This study would, perhaps, shed light on such an assumption as well as provide incite into the quality aspects of primary education.

### **Expenditure and Financing**

Following the adoption of a national EFA Action Plan in 2002, the government in Sierra Leone increased investments in the education sector backed by relevant policies. The

government's commitment to radically improve educational access and quality in the country was outlined in the 2003 national budget. Thus the government allocated 44.2 billion Leones to the education sector of which 14.0 billion Leones (32.4%) was for primary education to enhance the supply of teaching and learning materials, textbooks, school fee subsidies and the payment of examination fees for the NPSE (Ministry of Finance -SL., 2003). Further, in the 2006 National Budget for education, the government committed itself to the UPE goal and improving basic education quality by allocating 58.7 billion Leones to the education sector of the 2006/2007 fiscal budget. Again, 14.3 billion Leones (24.4%) was allocated to the primary education sector; and 5.0 billion Leones to cover examination costs of children taking the National Primary School Examination (NPSE), the Basic Education Certificate Examination (BECE), and the West African Senior Secondary Certificate Examination (WASSCE). Moreover, extra funds were set aside by the Ministry of Education for promotion of the Girl child policy and initiative.

From the above budget details, it is obvious that between 2003 and 2006, government's expenditure on education increased by 32.8% (Ministry of Finance- Sierra Leone, 2006). Moreover, budgetary projections for the planning period 2005–2008, suggest that government expenditure on education will continue to increase but at a much slower pace (3% per year), with the share of total expenditure unchanged (World Bank, 2007). Between 2000 and 2004, expenditure on education remained quite stable at about 4.2–4.9% of GDP. While this percentage compares favorably with other postwar countries in sub-Saharan Africa, such as Burundi (3.9% in 2002), Rwanda (2.8% in 2000), and Mozambique (2.4% in 1999), according to the World Bank (2007), this level of funding was inadequate in the face of multiple funding demands in the education sector. These demands range from sustaining the expansion of access at all levels, supporting girls education, ensuring quality and equity, establishing an EMIS in the

ministry of education, and providing funding for a new Education Sector Plan 2007 (ESP) lasting till 2015.

### **Highlights of the New Education Sector Plan-2007**

The Education Sector Plan -2007 was developed in response to challenges highlighted initially in the country's 2004 Poverty Reduction Strategy Paper (PRSP) and later in the government's 2006 Country Status Report (CSR). Both reports provided the diagnostic and analytical foundation of the situation of education in Sierra Leone. The CSR 2006 in particular provides a road map on how the government will build on the gains made since the end of the war in 2002. The goal was to ensure the timely achievement of the EFA and MDG goals by the year 2015. Moreover, a number of considerations informed both the objectives and strategies developed including the need for continued healing and rehabilitation as the nation recovers from the effects of war; and the need to produce qualified and relevant workforce to spearhead the development of the country (ESP, 2007). In order to overcome these challenges, the ESP proposed a number of strategies tailored specifically towards addressing the problems at each level of the education system and key crosscutting issues. The strategies include the following amongst others:-

- Building up infrastructure and an adequate qualified teaching force to cope with the present and future requirements for UPE;
- Reviewing the curriculum and making it more relevant to the needs of individuals, communities and the nation as a whole;
- Supporting post-primary education as a linchpin for the education sector and society as a whole –since post-primary education produces skilled personnel and technicians...;
- Increasing the capacity of education actors at all levels – national, district and school – and promoting the decentralization process;
- Improving data collection and analysis for monitoring, planning and accountability purposes through the recently established EMIS; and

- Improving on quality, mobilizing and making effective use of resources, including the promotion of public-private partnerships and cost recovery at the tertiary level.

The above strategies are critically linked to broader policies such as the MDG, EFA, PRSP, CSR, the National Recovery Strategy, and the World Bank's Country Assessment Strategy (CAS). The sector plan covers issues of access, retention, and completion; functional quality education; governance, planning, and management; funding, and monitoring and evaluation as they apply to all levels of education. Also, the plan highlights major areas of focus and activities to be carried out during the period of implementation (2007-2015). These include achieving universal primary education and completion; expanding and improving post-primary schooling; providing more and improved literacy and skills training possibilities; meeting the teacher needs of an expanding schooling system; meeting the human resources needs through higher/tertiary education; providing improved governance, planning and management; providing pre-school opportunities for more children; monitoring for quality improvement and accountability; and financing and fiscal sustainability of programs. Cross cutting areas of focus included HIV/AIDS, gender and geographic equity, special needs/provisions for the physically and mentally challenged, relevance of curriculum and type of education, efficiency, and capacity building.

Below are key targets of the ESP 2007:

Table 2: Key Parameters of the Education Sector Plan 2007

Indicators	2007	2015 Target
<b>Primary</b>		
Gross Enrolment Ratio (%)	109	105
Gross Intake Ratio (%)	129	100
Gross Completion Ratio (%)	67	100
Repetition Ratio (%)	10	5
Number of Head/ Senior Teachers	3, 576	7,000
Number of Teachers	18,038	24,816
Pupil/Teacher Ratio (%)	57	45
Total Enrolment	1,091, 269	1,240,786
Spending on Inputs less Teachers (%)	32	35
Total Costs (Primary) US\$ (Millions)	32,000,000	54,000,000
<b>Junior Secondary School</b>		
Transition Rate Primary-JSS (%)	59	50
Survival Rate (%)	78	90
Repetition Rate (%)	11.5	5.0
Gross Enrolment Ratio (%)	40	50
Number of Head/Senior Teachers	731	2,091
Number of Teachers	3,658	4,246
Pupil-Teacher Ratio (%)	30.6	34.2
Pupils per Class	47.6	45.0
Spending on Inputs less Teachers (%)	30	50
Total Costs (Secondary) US\$ (Millions)	10,400,000	44,800,000
<b>Senior Secondary School</b>		
Transition Rate-JSS-SSS (%)	39	37
Survival Rate (%)	108	90
Repetition Rate (%)	9.4	5.0
Gross Enrolment Ratio (%)	14	17
Number of Head/Senior Teachers	233	703
Number of Teachers	1,169	1,427
Pupil-Teacher Ratio (%)	27.9	29
Pupils per Class	41.7	40
Spending on Inputs less Teachers (%)	34	50
Total Costs (Secondary) US\$ (Millions)	2,900,000	29,000,000

Source: Education Sector Plan 2007, Government of Sierra Leone

The above plan is considered one of the most ambitious and comprehensive in Sierra Leone's educational history. For the purpose of this study, I will focus briefly on the strategies and proposed actions to improve basic education quality with the hope of enriching the context in which the REBEP project was conceived.

### Improving Basic Education Quality after EFA 2000

Sierra Leone developed its first post-independence Education Master plan in 1995 following a series of government white papers and reviews on the education sector. The plan, referred to as the Education Sector Policy 1995, was developed to address the numerous

problems in the sector in the face of a bleak socio-economic environment. The policy was intended to serve as the thrust for revitalization and rapid recovery of the country's education system after a destructive civil war. Implementation of the policy faced serious challenges because of the war and the lack of resources which lead to curtailment of some of the key components of the plan such as strengthening technical/vocational education and review of the school curriculum. With the declaration of the end of the war in January 2002, the priorities shifted significantly from implementing emergency programs such as the Complementary Rapid Education Program (CREPS) for primary schools to the need for reestablishing basic service delivery. This focus also encompassed new strategic thinking involving "designing and achieving fiscally sustainable long-term development for the education sector" (World Bank, 2007, p. 2).

Thus a number of new policies were developed and enacted including the Education Act 2004 which requires all children to complete basic education- 6 years of primary school and 3 years of junior secondary school (JSS). This national priority was consistent with the Millennium Development Goals (MDGs) on education which required governments to "ensure that all children complete a full course of primary schooling by 2015, and eliminate gender disparity at all levels of education by 2015" (MDG, 2000, p. ). The government also committed itself to achieving the EFA and MDG by 2015 and improving the quality of education at all levels. Further, in keeping with the policy framework articulated in the Poverty Reduction Strategy Paper (PRSP) and other documents that set education as one of the country's priorities, the government abolished school fees for all children in primary schools and for girls in JSS in the northern and eastern provinces. These policies were specifically intended to, not only expand access to all children and adults, but also to ensure educational equity particularly for girls.

Moreover, as a country just emerging from a destructive and debilitating war, the government was challenged to put in place strategies for national recovery and to deal with the

numerous problems caused by the war as well as pursue its UPE agenda. In order to achieve UPE by 2015, the government needed to expand facilities to cater, not only for the out-of-school children being attracted into school, but also for expected changes in overall enrollment due to an improving attitude towards schooling. This meant rehabilitating or reconstructing damaged structures, upgrading existing facilities, providing textbooks and teaching/learning materials, training teachers, and increasing the number of teachers. These necessities and realities informed government's decision in 2002, in consultation with other development partners to jointly develop the Rehabilitation of the Basic Education Project (REBEP) locally referred to as "SABABU" (meaning facilitator). The focus was to revitalize basic education as a foundation for recovery of the education system and in line with EFA goals.

### **Rehabilitation of Basic Education Project (REBEP)**

The REBEP project, funded by the World Bank (IDA), the African Development Bank and DFID, and the government of Sierra Leone was a direct response to eleven years of devastation and destruction of education infrastructure and the ultimate disruption of the education system in Sierra Leone. The main goal of the REBEP project was to assist the government of Sierra Leone re-establish education services in a post-conflict situation, and prepare the grounds for building up the sector. The objective was to strengthen national capacity for efficient delivery of education services in the country. The SABABU project sought to redress deficiencies in the basic education sector in post-war Sierra Leone through a number of actions:

- Reconstruction and rehabilitation of destroyed schools and vocational skills training facilities;
- Constructing schools that did not exist in areas without schools;
- Providing classroom furniture, textbooks and toolkits;
- Training teachers, and school management committees; and
- Capacity building of MEST.

These objectives were to be achieved through the following strategies:

- (i) Assist participating schools to achieve basic operational standards, defined in terms of trained teachers and head teachers, basic textbooks and learning materials, furniture, and a safe and healthy school environment;
- (ii) Develop a partnership between the Ministry of Education, Science and Technology (MEST), civil society and the international community to rebuild the school system; and,
- (iii) Build the capacity of Ministry of Education, Science and Technology (MEST) to plan for, and manage the provision of education services (REBEP Partnership Manual, 2003).

Based on already assessed levels of destruction of educational infrastructure caused by the war, as well as historical circumstances which preceded the war, the project proposed a coordinated partnership approach to implementation of the project. This required, among other things, building networks and partnerships with stakeholders in the education sector including civil society organizations and local communities. Further, the process of rehabilitation of the school system was to build upon the current delivery of services and mechanisms, mainly by private sector providers (missions and NGOs), and based upon participatory planning focusing on underserved areas (REBEP Partnership Manual, 2003). In order to effectively monitor the evolution of the school system as the process of implementation progressed, the project developed what it termed Fundamental Quality Level (FQL) criteria. According to the REBEP Partnership Manual (2003), the FQL is a set of agreed criteria that can evolve over time as minimal standards are met for the majority of schools. As specified in the project document, “FQL will be limited to include readily measured inputs to achieve *Basic Operational level*. This level is defined as schools where a physical structure safe for children is available and supplied with basic furniture, main textbooks and teaching and learning materials, one teacher per 40 students and a school management committee” (REBEP Partnership Manual, 2003, p. 4). While the REBEP project was not ostensibly designed to comprehensively address issues of education

quality in line with EFA and the MDG goals, it nonetheless has been regarded as the major programmatic action undertaken by the government since 1995. A major target was to ensure school effectiveness in at least 50% of schools in the country.

The question, however, remains-did REBEP target schools attain the basic operational level as an indicator of fundamental quality level? Given resources and inputs to targeted schools, did this have any effect on learning achievement during the period of implementation? This study essentially attempts to explore these questions and provide insights that may be relevant for developing strategies to deliver quality education in low resource environments and in post-conflict contexts. The next chapter looks at the conceptual framework of the study.

## CHAPTER 3

### CONCEPTUAL FRAMEWORK OF THE STUDY

*“A quality education system is one that succeeds in meeting its own goals; one that is relevant to the needs of children, communities and society; and one that fosters the ability of children to acquire knowledge and critical learning skills”*  
(The Global Campaign for Education, 2002).

#### Background and Overview

In this Chapter, I examine the history of global efforts at promoting and ensuring education for all since 1963 and renewed efforts at achieving quality basic education by 2015. The chapter reviews relevant literature on quality in education and analyses the underlying conceptual frameworks that drive strategies to ensure educational quality in low resource environments. In this analysis, an attempt is made to link the fundamental quality level (FQL) concept which forms the basis of REBEP strategy to traditional effective school frameworks and emerging paradigms.

In March 1990, the World Conference on Education for All (EFA) held in Jomtien, Thailand, participants, including international donors such as the World Bank, UNDP, and UNESCO and representatives from 155 countries and other non-governmental agencies adopted a World Declaration on EFA. The conference reaffirmed the notion of education as a fundamental human right and urged countries to intensify efforts to address the basic learning needs of all. The thrust of the debate then was the recognition that education was not only a basic human right issue, but more importantly, that access to education was a prerequisite for development as articulated by human capital theorists (Schultz, 1963; Becker, 1964; Mincer, 1974; Psacharopoulos, 1985, 1994).

Education was considered indispensable for human capital development and poverty eradication. It was needed to promote economic growth, create employment opportunities, and foster civic participation and personal development (Psacharopoulos, 1985). The Jomtien

conference spelled out decade-long targets and strategies to meet the basic learning needs of all by the year 2000. Specifically, it emphasized the goal to achieve universal access to learning, highlighting a focus on equity, emphasis on learning outcomes; broadening the means and the scope of basic education; enhancing the environment for learning; and strengthening partnerships by 2000. While significant progress was made across the world particularly in terms of access, most of the Jomtien EFA targets were not achieved by 2000. According to UNESCO (2002), although formidable progress had been achieved, new projections showed that achieving the EFA goals remained a tremendous challenge particularly in sub-Saharan Africa where investments in education were in fact declining contrary to expectations. It was in response to these challenges that the subsequent Dakar conference was held in April 2000 with the goal to assess the achievements, lessons, and failures of the 10-year period since the Jomtien Declaration. At the conference, the international community re-affirmed its vision of EFA 2000 through the Framework of Action (FOA) which proposed 12 major strategies and set six major goals to achieve quality education for all by 2015. The Dakar Framework explicitly placed the main responsibility for achieving the EFA goals on individual countries and committed to support all member states in the development and strengthening of existing national plans of action by 2002 at the latest. These sector-wide plans were to be integrated into a wider poverty reduction strategy and development framework through transparent and democratic processes involving all stakeholders in each country.

One critical component of the Dakar Framework of Action was the desire by all present to emphasize the need for achieving quality education in tandem with efforts to expand educational access. This shift in emphasis was reflected in improved worldwide gross enrolment rates after Jomtien and a growing acknowledgement that learners require high quality education experiences to remain in school and achieve the learning outcomes they expect. In

sub-Saharan Africa in particular, attention to quality education was significant and captivating as learners, parents, communities, educators, and governments acknowledged that what is learned and how learning occurs is as important as the desire to expand access to education. However, most countries narrowly perceive improvements in educational quality in terms of quantifiable indicators and measures such as improvements in infrastructure, textbooks supply, improvements in enrolment rates, retention and completion rates, and pupil/teacher ratios to report what they perceive as progress to donors.

Despite reported progress, it became evident in the late nineties that indicators such as teacher/pupil and textbook/pupil ratios, retention rates, and other common global education quality indicators did not adequately capture daily education experiences at the school level. According to Kendall (2006), programmatic efforts and policy actions designed to improve these indicators had neither sufficiently impacted education quality nor fully addressed learners' needs, parental, and teacher concerns. Specifically, there were escalating drop-out rates, low retention, poor achievement, and low learning outcomes as reflective of inefficient and ineffective school systems across countries. This fact was not lost on educators, governments and the international community who acknowledge that while progress in expanding access to education was commendable, such success had virtually been diminished by the appalling decrease in the quality of education as enrollments continued to grow well beyond the capacity and resources of national education systems (ADEA 2004; Alvarez et al. 2003; UNESCO 2004; World Bank, 2006). On the basis of these developments, attention shifted in developing countries since Dakar 2000 from expanding access to improving quality in policymaking. The goal was to, not only deemphasize the quantitative aspects of education policy, but also to give meaning to learners' experiences and emphasize school processes as intervening variables that could impact quality.

Further, there has been a paradigm shift from economically infused rational linear models of inputs-outputs to a consideration of more dynamic qualitative models that take account of “socio-cultural relations and interpersonal interactions” which result in more “experiential, learner-centric approaches to identifying, measuring, and improving education quality” (Kendall, 2006, p. 1). There was also considerable evidence within the school improvement framework of the role of organizational factors that could have significant impact on effective school management as well as instructional processes and learning. This fundamental shift in emphasis from one geared towards expanding access to a new focus on emerging dimensions of educational quality essentially triggered off policy actions across sub-Saharan Africa with a view to meeting the targeted objectives of EFA by 2015. The question however, is whether sub-Saharan Africa is on track to achieve EFA by 2015?

### **Quality Education: The Count Down to 2015**

The global consensus on achieving EFA by 2015, combined with relevant aspects of the Millennium Development Goals provided new impetus for increased investments in education. The EFA conference in Dakar pledged that “no countries seriously committed to education for all will be thwarted in their achievement of this goal by a lack of resources” (UNESCO, 2000, p. 8). However, the EFA Global Monitoring Report 2005 indicates that while many countries have made significant progress towards attaining universal access for children by 2015, attempts to ensure delivery of quality education continue to prove elusive and far more critical for the majority of developing countries. Similarly, the EFA Global Monitoring Report 2009 notes:

In 2006, some 75 million children, 55% girls, were not in school, almost half in sub-Saharan Africa. On current trends, millions of children will still be out of school in 2015 – the target date for universal primary education. Projections for 134 countries accounting for some two-thirds of out-of-school children in 2006 suggest that some 29 million children will be out of school in 2015 in these countries alone. (UNESCO EFA Global Monitoring Report, 2009, pp. 4-5).

Even more alarming is that nine years after Dakar 2000, assessments of education quality worldwide “highlights large achievement gaps between students in rich and poor countries” and, “within countries too, inequality exists between regions, communities, schools and classrooms” (UNESCO EFA Global Monitoring Report, 2009, p. 5). Other highlights of the report include:

- In developing countries there are substantially higher proportions of low learning achievement. In a recent Southern and Eastern Africa Consortium for Monitoring Educational Quality assessment (SACMEQ II) study in sub-Saharan Africa, fewer than 25% of grade 6 pupils reached a desirable level of reading in four countries and only 10% in six others;
- There are large national and regional disparities in pupil/teacher ratios, with marked teacher shortages in South and West Asia, and sub-Saharan Africa. But it is within countries that the greatest disparities exist, with teachers unevenly distributed across regions.

The GMR 2009 report notes significant progress in educational access in sub-Saharan Africa. Nevertheless, an ambitious new agenda specifically addressing the problem of quality needs to be developed across countries in sub-Saharan Africa if the continent should savor the benefits of an emerging global knowledge economy. The EFA Global Monitoring Report 2005 notes that a key problem with delivering quality education has been the differences in defining and conceptualizing quality. It highlights that strategies for addressing quality education over the years have largely been shaped by varying political contexts and conceptualizations. This is more obvious in the context of sub-Saharan Africa where standards not only continue to fall in many countries but also systems for measuring learning achievements and outcomes as an indicator of quality may not exist. Thus defining the construct quality education in terms of desired returns to learners, processes, content, outcomes, systems, and developing relevant strategy to ensure quality continues to be a major challenge in developing countries. While many educators literally understand what is meant by quality education, there may not be a

common agreement on what approaches or strategies are effective for delivering and ensuring quality in the basic education sector.

It should be noted, however, that while the definition of the construct quality education is important for analysis of various strategies or approaches that inform the design and implementation of programs intended to ensure educational quality, it is not the corpus of this paper. Rather, it is the assumptions and conceptual underpinnings of the strategies that were developed to achieve educational quality that informs the main thesis of the study. Nevertheless, since strategies are driven by theoretical constructs often framed by the “discursive regime” (Foucault, 1980, p. 113), in this instance donors, I will examine core elements of the conceptual underpinnings of the construct quality education.

### **Quality in Education- Review of the Literature**

The Jomtien conference has been considered the tipping point for worldwide endorsement of an expanded vision of basic education. This vision called for strengthening partnerships with donors, civil society organizations, local communities, and nongovernmental organizations (NGOs) in providing education for all. Research and existing literature prior to the Jomtien Conference in 1990 focused primarily on the concept school improvement and under what set of circumstances and conditions changes occur in the school environment. Ten years later, the seminal work by Fullan (2000) helped to draw attention to teaching and learning processes including teacher’s behavior and beliefs in the classroom that were considered critical for enhancing change and improving learning outcomes. Today, quality is a multi-faceted concept with most definitions highlighting the different elements of the basic input-output model that routinely drives educational research and policy analysis. Most of the global monitoring indicators were essentially quantitative mostly prescribed by economists as indicators of progress.

## **Deconstructing Quality in Education**

Historically, literature on education does not explicitly define what educational quality means although there is a generality of understanding that education systems around the world are always structured around a common vision of quality or standards (Leu, 2005). The term quality education is rooted in the notion of school effectiveness indicating merit and worth. Quality may be seen as an expanded characterization of school efficiency and effectiveness as reflected in better environments, improved instructions and curriculum content that is learner centered, and above all improved learning outcomes. Some educators consider these elements as new dimensions of quality that can be critical for increasing school achievement. Kendall (2006), for example, mentions safe physical and emotional environments, basic infrastructure, learning materials, and per capita expenditure per student as measures of quality while acknowledging that the actual effects of these inputs may differ across groups, settings, institutions, and countries.

Commenting on the concept quality in education, Pigozzi (2003) notes that understandings of what constitutes quality is evolving from a notion of basic academics such as reading, writing, and arithmetic to more critical components such as teachers, content, methodologies, curriculum, examination systems, policy, planning, management and administration. Pigozzi identified six key dimensions of quality education from a “rights perspective” (p. 3): learner seeking, learner characteristics, curriculum content, educational processes, learning environment, and an enabling environment (managerial and administrative systems and legislative frameworks and policies). The author concludes that “quality education relates to knowledge building and the skillful application of all forms of knowledge by unique individuals that function both independently and in relation to others” (Pigozzi, 2003, p. 7). Without doubt, these dimensions offer useful insights into the quality debate but educators are

often guilty of conspicuously neglecting the role of parents and the community in ensuring quality and how to determine the specific impact of each element in improving school effectiveness. Other contributors to the quality education debate (Ross & Mahlck, 1990; Heneveld, 1994, 1996; Verspoor, 2003; Mayers, 2006) acknowledge that the factors determining effectiveness in education are so complexly interwoven and influenced by local contexts that it is difficult to make generalizations about what constitutes quality education.

In their submission on qualitative change in education, Ross and Mahlck (1990) note “an improvement in the environment in which the student works with the aids to learning provided for that purpose by the school system, and [when] this improved environment [has expressed] itself as detectable gains in the knowledge, skills, and values acquired by students” (p. 6). It would seem the environment referred to here encompass a much broader understanding and acceptance of both internal and external factors beyond the physical as critical elements for ensuring quality.

In a paper presented at the ADEA Biennale 2003, Verspoor (2003) stops short of identifying the parameters for quality education in low resource contexts and more specifically sub-Saharan Africa. Instead, Verspoor identifies seven principal pillars as a strategic framework for quality improvement, visually- creating the opportunity to learn; improving instructional practice; managing the challenge of equity, increasing school autonomy and flexibility; nurturing community support; ensuring realistic financial frameworks; and responding to HIV/AIDS and conflict situations. The goal, according to Verspoor, is to build a national strategic framework around these pillars but they by no means suggest indicators of quality education.

### **Quality as Multiple Meanings**

The concept quality education emerged from the school effectiveness and school improvement discourse of the 1980s and early 1990s (Lezotte & Bancroft, 1985; Anderson,

1991; Adams, 1993; Heneveld, 1994, 1996; Darling-Hammond, 1997). Adams (1993), recognizing the rather fluid nature of education, attempted an expanded characterization of the construct quality education. Adams (1993) identifies multiple layers of the definitions of quality as concepts-in-use with a number of characteristics. These include “quality as multiple meanings; quality as it may reflect individual values and interpretations; quality as multidimensional; it may subsume equity and efficiency concerns; quality as dynamic- it changes over time and by context; quality as assessed by either quantitative or qualitative measures; and quality as grounded in values, cultures, and traditions which may be specific to a given nation, province, community, school, parent, or individual student suggesting different stakeholder groups often have different definitions of quality” (p. 12). Adams thus proposes a number of considerations to provide a comprehensive framework for examining and understanding the complex meanings of quality. These include the knowledge bases or theories that are used to define quality: social theories, learning theories, instructional theories, effective schools research, and education production function theories. Most of these theories and paradigms may have contributed to the generation of different definitions over time.

Finally, there is the issue of the relationship of politics and power to conceptualizations of educational quality, that is, quality for whom or quality according to whose definition? An understanding of these issues, according to Adams (1993) is critically important for analysis of any strategies or programmatic actions that have been utilized in low resource countries to drive the engine of educational quality. Similarly, based on analysis of existing literature, Harvey (1995) identifies five conceptions of education quality each with a distinct rationale and a credible justification for initiating educational change. Firstly, education quality as exceptionalism, implying that the achievement of excellence is the vision that drives education and that school systems seek to maximize the pursuit of the highest potential in students.

Secondly, Harvey conceives education quality as consistency indicating a vision of equality and equity of the experiences of learners in the system. Further, education quality is perceived as fitness-for-purpose, suggesting a notion of refinement and perfection in the preparation of students in specific subject areas so that learners have potential to perform specific roles in society and that instructional methods are tailored to meet such specialization. Moreover, Harvey (1995) identified education quality as value for money implying worthiness in terms of individual and societal investments in the educational enterprise. In short, quality is interpreted as the extent to which the system delivers value for money hence many education systems often resort to cost-benefit analysis of education investments.

Finally, education quality is perceived as an entity with transformative potential suggesting an element of social and/or personal change to be derived from the process. However, it is far more difficult to determine to what extent education accounts for such changes. This transformative element of educational quality is rooted in the writings of theorists such as Dewey (1953), Habermas (1963), and more recently Freire (1973). Quality education, as seen by transformists, is a catalyst for positive changes in individuals and society with the power to promote social change (Kubow & Fossum, 2003). In a commentary on Harvey's five conceptions of quality, Leu (2005) notes that these conceptions are related, firstly to particular visions of society or an endorsement of what the education system is expected to contribute to social goals; and secondly, to different visions of quality in terms of learning outcomes. Thus in education, visions of quality might value the acquisition of "empirical knowledge, facts, causal explanations" or an "interpretation, understanding, constructing new meanings, situational knowledge" or the "promotion of critical reflection, knowledge, and thought that lead to action and create a strong relationship to oneself and one's social world" (Hopkins 2001, p. 21) as cited by Leu (2005, p. 5).

Whereas the implicit emphasis on the achievement of specific learning objectives as defined by Bloom et al (1956) is often considered the goal of education, quality education has evolved over the years to mean more than just the acquisition of knowledge and quality of learning. USAID, for example, using a conceptual framework developed by Ginsburg and Schubert (2001) for its Improving Education Quality Project (IEQ), defined educational quality as a set of activities “designed to promote dialogue about [the meaning of] educational quality in different social and economic contexts,” noting that “quality can also be approached in a more structured way by focusing on inputs, processes, content, outputs, and outcomes’ (Ginsburg & Schubert 2001, p. 4).

In the context of developing countries, international perspectives continue to define and drive the agenda on quality education. In recent times, the terms efficiency, effectiveness, equity, and quality have been used synonymously (Adam, 1993). According to UNICEF (2005, p. 5), quality education is defined by five key dimensions: “what learners bring, environments, content, processes and outcomes” suggesting a focus on adequate number of schools, books and learning materials, trained teachers, and the number of children who complete the full school cycle. UNICEF emphasizes that the definition “encompasses education for human security, for community development and for national progress” (p. 5). These emerging dimensions of quality education were made more explicit at the EFA conference in Dakar 2000 and re-enforced in the UNESCO *EFA Global Monitoring Report 2005: Education for All-The Quality Imperative*. The report identifies two key elements of quality- cognitive and creative/emotional development. The report notes that cognitive development is a major explicit objective of virtually all education systems and the degree to which systems actually achieve this is a major indicator of their quality.

However, the report provides the caveat that, “while this indicator can be measured relatively easily . . . it is much more difficult to determine *how* to improve the results” (UNESCO 2004, p. 29). The second element of quality articulates learners’ creative and emotional development and learning to support the objectives of peace, citizenship, and security and to promote equality. The report states that this element of quality is understood in diverse ways around the world and, compared with cognitive development, is much more difficult to define. Finally, the GMR 2005 report points out that “agreement about the objectives and aims of education will frame any discussion of quality and that such agreement embodies moral, political, and epistemological issues that are frequently invisible or ignored” (UNESCO 2004, p. 37). It also emphasizes that different notions of quality are associated with different education traditions and approaches. It is perhaps these differences in traditions and epistemological postulations about quality that has given rise to apparently diverse strategies and approaches to how quality education has been delivered or is being delivered in developing countries since Dakar 2000. As a result of the increasing complexity to conceptualize quality in education, coupled with the reality to address the issue of declining quality in developing countries, some educators question whether the concept quality is a “universal, absolute, knowable, coherent, reasoned, orderly, value-free truth” (Mayers, 2006, p. 8). Mayers notes that the most realistic way of looking at quality in education in contemporary times is in terms of standard learning outcomes, a conjecture often questioned by some educators (Adams, 1993; Heneveld, 1994; Tatum, 1997; Craig et al, 1998; Verspoor, 2006).

This broad analysis of definitions of educational quality underscores the continuing need to adequately respond to the quality challenge in low resource countries particularly sub-Saharan Africa. It also typifies difficulty in measuring quality both within countries and between different countries in the same region since “measures and definitions of quality are reflexively

interrupted” (Kendall, 2006, p. 2). Historically, quality has been measured by easily quantified indicators such as enrollment rates, pupil/teacher ratios, availability of instructional materials such as pupil/textbook ratios, retention, drop out, and completion rates. While these indicators are widely accepted by international donors and allow for comparability of education quality across nations, they fail to capture the processes and concerns that emanate from pupils’, parents’, teachers’ and administrators’ daily education experiences. It is, for example, documented that these indicators fail to distinctly capture learners’ interaction with teachers. It also neglects teachers’ instructional practices, safety of the learning environment, curriculum relevance to the realities in the community and its ability to respond to future opportunities, community support, learners’ readiness, school management processes, and systems for teachers’ professional development. The need to understand the effects of these elements was critical for framing this present study. In the next section, I focus on some of the major strategies adopted since the 1990s to deliver quality education in developing countries.

### **Strategies for Delivering and Ensuring Quality Education**

Three of the six articles agreed upon at the Jomtien conference in 1990 were directly related to issues of educational quality:

- Universal access to, and completion of, primary education (or whatever higher level of education is considered as "basic") by the year 2000;
- Improvement in learning achievement such that an agreed percentage of an appropriate age cohort (e. g. 80% of 14 year-olds) attains or surpasses a defined level of necessary learning achievement;
- Increased acquisition by individuals and families of the knowledge, skills and values required for better living and sound and sustainable development.

Six years after Jomtien, a consultative forum on EFA was held in 1996 to assess the advances made since 1990. This conference was significant because of the implications it had for conceptualizing educational quality and its unequivocal stance on the “urgent need to close the

gender gap in education, both as a matter of simple equity and as the most effective means for responding to demographic pressures and promoting development” (UNESCO, 1996, p. 9).

Although ensuring quality education may have been implicit in the EFA goals proposed in 1990, it became obvious that the latent meaning of educational quality at the time was to ensure equity, particularly gender equity in education and improved learning achievements. Thus reference to school factors such as instructional practices of teachers, classroom management practices, supervision, and school leadership-often considered germane to school effectiveness-did not receive the required prominence. This oversight had serious implications for international support to education programs particularly discussions around delivery strategies to ensure educational quality. These discussions informed the different approaches for ensuring educational quality. Two schools of thought continue to dominate the debate on strategies for delivering educational quality: effective schools strategy and the school improvement paradigm.

### **Effective School Paradigm**

The effective school literature attempts to look at factors and specifically inputs that may explain processes through which successful change occurs, with success mostly interpreted as better student achievement and as a measure of quality or school effectiveness. The input-output model later referred to as the Effective Schools movement uses the “production function paradigm to determine causal relationships between educational inputs and processes, on the one hand, and student outcomes on the other” (Heneveld & Craig, 1996, p. 9). The paradigm emphasizes use of quantitative analytic tools and techniques to determine how much of students’ academic achievement can be explained by various school inputs or factors. Such factors could either be levels of significance of specific inputs or in terms of the least-cost mix of inputs for producing a given level of student achievement normally attributed to economists like Hanushek (1986). The input-output model, which is at the core of the school effectiveness

approach, gained enormous currency at the World Bank. The results of research carried out to support these models have been used extensively to argue for investments in those inputs either alone or in combination that are considered the most significantly related to student learning outcomes. According to Heneveld (1994), the effective school strategy is based on three key assumptions; firstly, that policy is an effective instrument for educational change even though this is often mediated by complex factors linking policy and practice. Secondly, that the right mix of inputs will lead to changes in student performance; a notion which ignores the reality that “unique educational processes” (p. 4) in each classroom largely contributes to student learning outcomes. Lastly, the implicit assumption that school facilities and equipment, curriculum, teachers’ behavior, and management processes are independent of each other which totally ignores the complexity of the conditions and social systems in which learning occurs.

Other researchers such as Edmonds (1979) held similar contentions about the characteristics of effective schools following on a series of research works. Edmonds (1979) cited strong leadership of the principal; emphasis on mastery of basic skills, clean and orderly school environments; high teacher expectations of student performance; and frequent assessment of students’ progress as characteristics of effective schools. After Edmonds’ work, researchers in the UK (Rutter et al, 1979; Mortimore et al, 1988) as cited by Heneveld and Craig (1996) identified a number of practices that were thought relevant to improve student achievement while controlling for student’s socio-economic background. These were categorized as process factors- that is, clear goals and high expectations; collaborative planning and collegial relationships; sense of community; order and discipline; and flexibility and autonomy. The second set of factors were organizational-strong parent and community support; effective support from the education system; adequate resources; school-wide staff development;

effective leadership, capable teaching force; maximized learning time; variety in teaching strategies; curriculum articulation and organization; recognition of academic success; staff stability; and frequent, well supervised homework.

However, research carried out in developing countries such as Chile and Uganda showed marked differences between developing and industrialized countries in the importance of school-related factors on student achievement (Schiefelbein & Farrell, 1973; Heyneman, 1976). The studies showed that in-school variables seemed to influence student achievement more in developing countries than in the developed. Later research funded by the World Bank and other organizations underscored how important variables are influenced by the context surrounding the school (Lockheed & Verspoor, 1991; Heneveld & Craig, 1996; Pigozzi, 2003; Verspoor, 2003). Furthermore, school effectiveness research has so far not demonstrated how ineffective schools can become more effective. This suggests that “it is not at all obvious that the correlates of ineffectiveness are simply the converse of effectiveness correlates” (Saunders, 2000, p. 9). As noted by Stoll and Myers (1998), more research may be needed to determine the means by which poorer schools in low resource environments are enabled to become better. In addition, exponents of the school effectiveness framework, acknowledge that the discipline is mostly concerned with defining effectiveness in terms of cognitive and academic outcomes, rather than with social and affective ones which is considered a major shortcoming for applicability in developing countries (Slee et al., 1998; Scheerens, 1999).

Similarly, Heneveld and Craig (1996) question preference for educational outcomes as a measure of quality or school effectiveness over processes of education. Accordingly, they developed a conceptual framework based on the assumption that “econometric input-output model of schooling and the techniques that stem from this model are not adequate in understanding and planning improvements in what goes on in schools and classrooms” (p. 3).

They argue that most researchers and educational planners perceive the school as a unit of production and their planning techniques usually “follow the principles of industrial system analysis” (p. 3). Other researchers who analyzed the input-output model as far back as the 1980s concluded that “typical industry and aggregate production function specifications provide little direct guidance in educational analysis, because they seldom are designed to deal with the detailed policy questions that have been central to investigations of school” (Hanushek, 1986, p. 1142) as cited by Heneveld and Craig (1996).

Furthermore, new research by Hanushek and Wosmann (2007) has ignited a new debate about the production function of education and specifically the returns to human capital investment (Psacharopoulos & Woodhall, 1985). Hanushek and Wosmann (2007) argue that policies directed at expanding school enrolment at the detriment of quality- a policy that is at the center of most education and development strategies- has not guaranteed better economic conditions. They insist “the cognitive skills of the population, rather than mere school enrollment, are powerfully related to individual earnings, to the distribution of income, and to economic growth” (p. 1). Based on studies in the U.S., Hanushek and Wosmann (2007) provide direct and consistent estimates of the impact of test performance on earnings indicating that a one standard deviation increase in Mathematics performance at the end of high school translates into 12% higher annual earnings. Although the study did not exclusively use data from developing countries because of restrictions and lack of such data, Hanushek and Wosmann (2007) point out that the evidence allows deduction of a tentative conclusion that the returns to quality may be even larger in developing countries than in developed countries. They therefore conclude that any attempts to simply expand access and attainment through opening a large number of low quality schools will be “self-defeating to the extent that there is a direct reaction to the low quality that affects actual attainment” (p. 3).

Nevertheless, the effective schools framework has had considerable impact on program designs developed by donor institutions, and governments to improve on educational quality in developing countries. For example, an evaluative study of 25 World Bank supported projects carried out in the 1980s by Heneveld (1994) notes the prominence of a mix of input factors such as textbooks, teacher training, supervision, and community support as important determinants of student achievement identified by that institution over school-level processes (Table 3).

Table 3: Comparison of 25 World Bank Projects that used School Effectiveness

<b>Inputs to the School</b>		<b>Factors Inside The School</b>	
<b><u>Inputs</u></b>	<b><u>Number of Projects</u></b>	<b><u>In-School Factors</u></b>	<b><u>Number of Projects</u></b>
Community Support	20	Effective Leadership	16
Supervisory Support	20	In-School Teacher Development	8
Teacher Development	23	Local Flexibility and Autonomy	14
Textbooks & Materials	23	School Climate Factors	2
Facilities	19	Teaching/Learning Processes	1
		Assessment/Examination	11

*Source: Heneveld, 1994.*

Table 3 shows that only 1 project out of the 25 World Bank projects addressed teaching/learning processes in the schools supported by the Bank; only 2 addressed the issue of school climate factors (high expectations of learners, positive teacher attitudes, rewards and incentives, etc.); and only 8 considered addressing in-school teacher development processes compared to 23 that addressed provision of textbooks and support for pre-service training. It also shows that on average, 84% considered input factors as being more important in school effectiveness than school-level inputs and processes. This conclusion has had serious implications for policy actions aimed at school reform in developing countries. Meanwhile, research carried out as recently as 2005 by the Independent Evaluation Group (IEG), a World Bank subsidiary, on World Bank support to the education sector suggests that most projects downplayed qualitative aspects of school-level inputs and processes. This has given rise to the need for re-conceptualization of support to basic education and a refinement of quality delivery

strategies within the framework of the broader issue of school improvement in low resource countries.

Other critics of school effectiveness approach note that donor aid and projects have continuously sought to extend school effectiveness through modern technology and/or greater rational use of existing resources in the hope of assisting the state to perpetuate the myth that if only schools and teachers were more effective or efficient, then both family economies and state economies would improve (Harber & Davies, 2001; Lavan, 2005). Lavan (2005, p. 17), citing Harber and Davies (2001) notes that-

International donors applying the School Effectiveness framework to drive quality education strategies in developing countries naively assume that there is a universally shared goal of school *effectiveness* in these countries, and that resources and technical knowledge are all that stand in the way of attaining this goal... the state itself, taken as a whole, has a significant interest in primary school *ineffectiveness* primarily because of the school's crucial opportunity rationing function... In relation to the interests of these parents and of a state incapable of providing real economic opportunity, schools *are effective- precisely in their dysfunction*. (Harber & Davies, 2001, p. 17).

This argument, which is essentially rooted in Neo-Marxist theory and poststructuralist discourse, perceives schooling as an ideological state apparatus- ISAs- (Althusser, 1971) and an instrument of social reproduction (Bourdieu & Passeron, 1977). Schooling is also seen as the legitimization of existing social, economic, and political class inequities thereby ensuring the status quo "in a way that gives the illusion of objectivity, neutrality, and opportunity" (Feinberg & Soltis, 2004, p. 43). Thus they submit that any improvements in educational quality intended for the masses would not be in the best interest of policy makers and elites who control the resources of the state and therefore unwilling to fully commit such resources for the benefit of the poor and marginalized. It must be pointed out, however, that functionalists such as Dreeben (1968) would disagree, noting that schools help to transmit certain values or norms- independence, achievement, universalism, and specificity- values that are required to work and become a good citizen in a modern society as cited by Feinberg and Soltis (2004).

Finally, Heneveld and Craig (1996) note that whereas the “effectiveness correlates or factors” are “potential contributors to school quality” they by no means should be viewed as “guarantors of quality” (p. 12). They conclude that it requires “effusive interaction of both structural inputs and in-school inputs and processes (including both organizational and enabling conditions) for quality” (p. 12) to be assured. This contention is the core argument in the school improvement paradigm.

### **School Improvement Paradigm**

The term school improvement usually refers to attempts to implement innovations in a school system with the aim of producing positive and valuable changes in student learning outcomes, in teachers’ skills and attitudes, and in the functioning of the institution (Center for Educational Research and Innovation, 1981). In addition to using much of the research on school effectiveness, the approach emphasizes the process of change in the school, employing qualitative analytic tools and methodologies. In a commentary following a study of US schools, Lezotte and Bancroft (1985), indicate that the school improvement paradigm is based on five premises embodied in Effective School Research (ESR). Firstly, the primary function of schooling is teaching and learning suggesting that even though quality of life and the ultimate career choices of students are important, they must not be considered the overarching function of school. Further, that the primary basis for assessing the increased effectiveness of the schools should be in terms of student outcomes indicating reliance on inputs and processes for assessing schooling hence the accountability movement in the 1980s.

Moreover, Lezotte and Bancroft (1985) propose that the way a school district chooses to monitor outcomes is indicative of the educational outcomes that the school district cares about. The fourth premise is that an effective school is one that demonstrates both quality and equity which is associated with the level of achievement that the student exhibits on prescribed

outcome measures. Finally, school improvement practice rests on the belief that that quality and equity are achieved and maintained only when the improvement effort has been designed to accrue benefits for all students. The authors conclude that these premises considered in aggregate “provide a useful framework for defining an effective school both operationally and conceptually” (Lezotte & Bancroft, 1985, p. 308). While these premises reflect the vision of effective schools and could be useful for purposes of analysis, they do not prescribe characteristics or attributes of school improvement processes that enhance change. Also, much of the contentions of Lezotte and Bancroft may not be entirely relevant to the context in developing countries. Thus school improvement researchers interested in developing countries concentrate more on how change occurs in school systems as well as on action-oriented research to propose improvement strategies that seek to achieve long term goals (Heneveld & Craig, 1996). Some researchers propose incremental changes (Verspoor, 1989, 2003) while others urge dramatic and systemic reform and restructuring (Huberman & Miles, 1984; Levin, 1991; Fullan, 1991). No matter the point of emphasis, a number of common themes can be identified in school improvement theory including the following: effective leadership; shared vision-building and support of school improvement efforts at school and district levels; commitment and acceptance of school improvement efforts; active initiation and participation; collaborative planning and decision-making; organizational policies, support for action and press for improvement; staff development and resource assistance; monitoring efforts for accountability and improvement; and recognition for jobs well done (Heneveld & Craig, 1996).

Although the school improvement tradition has had little application in developing countries, Dalin et al (1992) carried out a study of reforms in Bangladesh, Colombia, and Ethiopia and came up with a list of characteristics of excellent schools. These include the existence of an in-service training process that is well implemented, regular, relevant, and

practical; opportunity for adaptation of the curriculum and production of local teaching-learning materials; presence of a highly motivated headmaster that serves as an instructional leader and plays a more active coordination and supportive role; a sense of team spirit where teachers cooperate and exchange professional ideas and students have a positive attitude towards reform; an environment where supervision is regular and shared between the supervisor and headmaster; an environment where the school gets more support (material and financial) from the community and parents are interested in the schooling of their children; and other country specific factors distinguish these schools. The conclusions of the study highlights important factors that could facilitate the change process in schools and confirm the findings of previous research on school effectiveness. However, the findings are limited in scope and not generalizable implying that they may not be applicable to the unique context of sub-Saharan Africa.

Additionally, the issue of implementation and management of the change process has been seen as a critical component of the school improvement process. Lezotte and Bancroft (1985) identified three elements of the change implementation process-effective staff development, effective organizational development, and effective planned change. These elements are anchored in some of the key principles of organizational change, including an awareness of the need to utilize multiple-frames in any organizational reframing process (Bolman & Deal, 2003). The framework should consider variables like the role of leadership, an understanding of institutional culture, structure, politics and human resources. In the context of schools, such organizational change process must take into account certain normative principles (Lezotte & Bancroft, 1985). These are: 1) focus on the single school as the strategic unit for school improvement; 2) a recognition that change is a long-term-process and not an event (3-5 years); 3) a belief that change is possible without infusion of major resources or personnel; 4) an

acceptance that effective schools and effective teaching research provides useful framework for school improvement planning and implementation; and 5) a representative team of administrators, teachers, and parents (community) who can provide the leadership and inspiration needed to initiate, plan, and implement the design of the school improvement process.

Other reformists such as Fullan (1991, 2003) acknowledge the significance of these elements in the school improvement process. There are of course different schools of thought on how the process of change should occur in organizations particularly strategic change (Cohen, March & Olsen, 1972; Mintzberg & Waters, 1978; Quinn, 1980). Quinn (1980) proposes a step by step approach described as “logical incrementalism” which describes the art of blending “formal-analytical, behavioral and power political techniques to bring about cohesion and step-by-step movement toward broadly conceived ends, which are then constantly redefined and reshaped as new information appears” (p. 98) to ensure successful change.

In the field of education, Fullan (2003) complexifies the process of school effectiveness and improvement, noting that existing literature not only downplays the issue of social class but also relegates it as a control variable. In order to accomplish more comprehensive and equitable reform, Fullan proposes a new strategy articulated in the complexity and evolutionary theory. Key elements of this complexity or chaos theory include the recognition that “strategies can never work in the face of rapidly changing environments” and that “rapid change is endemic and inevitable in post-modern society – a system which self-generates complex dynamics over and over and over again” (p. 3). Fullan concludes that the old way of managing change in stable environments no longer works, acknowledging that cause and effect are difficult to trace, change unfolds in non-linear ways, paradoxes and contradictions abound and that creative solutions arise out of interaction under conditions of uncertainty, diversity and instability.

Fullan's theory essentially falls within the realm of logical incrementalism although it clearly articulates the significance of environmental factors in instituting change in complex adaptive systems such as schools where different interests, cultures, and ethos mesh and merge in various ways and means. Because schools are organizational entities in which reform actions take place, this theory draws attention to the need to be aware of such complexities in the design, planning and implementation of school improvement and reform programs. It is these considerations that informed the conceptual framework proposed by Heneveld (1994) and later refined by Heneveld and Craig (1996).

### **School Improvement in Developing Countries**

Given the increasing demand to address school effectiveness in Africa and utilizing meta-analysis of previous school effectiveness research, Heneveld and Craig (1996) propose a conceptual framework based on a number of assumptions. Firstly, that the school is the critical unit for bringing about change in educational quality, implying that in the delivery of quality education, "children count, teachers count, and classrooms count" (Heneveld & Craig, 1996, p. 16). Secondly, it is assumed that while a mix of different factors need to be determined, the most effective and efficient mix is contingent on local social and cultural factors. It is on the basis of such factors that decisions should be made as closely as possible to the classroom. Also, the mix of factors that may work in one setting may not necessarily be applicable in another. Above all, the conceptual framework acknowledges the fact that the attributes of effective schools which affect student outcomes are embedded in institutional, cultural, social and political contexts (Bolman & Deal, 2003). These attributes greatly influence how school factors interact with each other to enhance effectiveness. In other words, educationists need to take into account the management of change processes and an understanding of the role and function of agents of change in education both within and without (Fullan, 1991,

1993). Heneveld and Craig (1996) therefore proposed a conceptual framework that consists of interrelated networks of eighteen key factors that are likely to influence student outcomes. The factors are organized into four categories—supporting inputs from outside the school; enabling conditions; school climate; and teaching/learning process inside the school.

In terms of supporting inputs, Heneveld and Craig (1996) identify the role of parental and community support, an effective education system, and the provision of adequate material support as vital elements for school effectiveness (Lockheed & Verspoor, 1991; Dalin et al, 1992). In addition to material and financial support to the school, Heneveld and Craig (1996) also mention effective communication between the school and the community, involvement in school governance and management structure and the existence of local in-service training as equally critical for improving teacher's pedagogical skills hence determining teacher mastery and student achievement citing studies carried out in developing countries by Fuller (1989), Farrell (1989), Levine (1991) and Dalin et al (1992). Other critical inputs include adequacy of textbooks, which according to Heneveld and Craig (1996) has had far greater impact in Africa than in industrial countries citing research by Heyneman et al (1981), Heyneman and Loxley (1984), Farrell (1989), and Lockheed and Verspoor (1991). They conclude that children in developing countries who have access to textbooks and other reading materials learn more than those who do not have access. Heneveld and Craig (1996) conclude that given adequate physical infrastructure and facilities, textbooks are considered the "single most important instructional material and are particularly effective where teachers use teaching guides with them" (p. 20). However, access to textbooks may not necessarily suggest that they are being effectively used by teachers if they are being used at all.

The second set of factors is described as enabling by Heneveld and Craig (1996). These include a school's capacity in terms of effective leadership, a capable teaching force,

flexibility and autonomy to make independent decisions about how time and resources are used to increase academic performance, and the adequacy of time spent in school. The literature on effective leadership identifies variables such as adequate support to teachers, ensuring the availability of learning materials and maintenance of facilities; pursuit of high instructional standards through shared visioning and high expectations; regular communication both horizontally and vertically; high visibility and transparency (Lezotte & Bancroft, 1985; Chubb & Moe, 1990; Lockheed & Verspoor, 1991). Moreover, the need for a capable teaching force to ensure student performance and achievement is highlighted, drawing largely on evidence from the west (Huberman & Miles, 1984; Fuller, 1986; Lockheed & Verspoor, 1991). Some of the conditions which define the capability of the teaching force include teacher's mastery and knowledge of subject matter, experience in teaching, time spent in school and the extent to which the teaching force is full time. Furthermore, the issue of flexibility and autonomy is highlighted as an enabling condition for school effectiveness in developing countries. However, the extent to which such a factor is relevant in the context of sub-Saharan Africa where education systems are inherently highly centralized is debatable. Finally, Heneveld and Craig (1996) refer to time spent in school as a variable for student achievement with emphasis on use of the allocated time citing research by Farrell (1989), Fuller (1986), and Haddad et al (1990). This issue of time on task is further explored by Abadzi et al (2004) and Gilles and Quijada (2008) in a new study which will be discussed in a later section.

The third set of factors is described as school climate which includes high teacher expectations, positive teacher attitudes, and a system of rewards and incentives (Heneveld & Craig, 1996). These elements may be important in the context of Africa where teachers' conditions of service remain largely unsatisfactory. The elements are important because of their

potential cumulative effect on many of the other variables described earlier. Closely associated with these factors are a number of intervening variables which include the school's culture on recognition of accomplishments for students and teachers, organized curriculum, school discipline, teachers' conditions of service, and teacher motivation. Understandably, teacher motivation has not been a critical research focus either in the U. S. or Europe where teachers' conditions of service and opportunities for professional development and mobility are invariably attractive. Consequently, issues of teacher motivation have not been adequately addressed in existing literature on teacher effectiveness. Finally, Heneveld and Craig (1996) highlight teaching and learning processes as critical factors. Some of the variables include students' learning time, the use of a combination of teaching strategies, frequency of homework, and consistency and frequency of student assessment and feedback. The literature on the significance of students' learning time relate to effective use of class time-on-task, selection of appropriate curriculum materials, use of active learning strategies, and constructive feedback by teachers (Joyce et al, 1983; Purkey & Smith, 1983) as cited by Heneveld and Craig (1996). Studies carried out in various countries show that the time available for instruction and how well this time is used by teachers and students during instruction is consistently related to how much children learn at school according to Lockheed and Verspoor (1991). Other researchers reached similar conclusions in the recent past (Taylor, 1998; Abadzi, 2004).

According to Abadzi (2004), although time may not be the only variable that is significantly related to student achievement, the amount of time students have to process information is a key factor in the acquisition of basic cognitive skills. Citing research studies carried out in Mali, Honduras, Nigeria, Zambia, and the Middle East, Abadzi notes that much time is not spent engaged in learning due to factors such as wastage of "evanescent instructional time" (Abadzi, 2004, p. 273)- fewer official number of school days, fewer class

hours, teacher absenteeism, student absenteeism, and wastage of class time. In Guinea, for example, students in multi-grade classes particularly in rural schools scored 3.6% points lower in French and 5.6% points lower in Mathematics (Barrier et al, 1998) indicating that split-shifts have lower test scores as cited by Abadzi. Time on task (Taylor et al, 1998) could therefore significantly affect instructional time and ultimately learning outcomes.

Further, research on school effectiveness has shown that the use of a variety of teaching strategies during instruction contributes significantly to meeting the different learning needs of students (Joyce et al, 1983; Levine, 1990). Similarly, Lockheed and Verspoor (1991) emphasize teacher's preparation for teaching lessons, the use of cooperative group learning strategies, and systematic use of constructive feedback as effective tools for ensuring maximum learning in developing countries. These tools, coupled with frequent use of assignments and timely evaluation of homework helps boost student learning according to Heneveld and Craig (1996). The framework also notes the importance of student assessment and feedback as effective tools for monitoring students' progress and enhancing motivation of students citing studies by Joyce et al (1983), Lezotte and Bancroft (1985), Steller (1988), and Blum (1990). All these teacher-related variables are significant for identifying priority areas for intervention at the school level.

Nevertheless, there is increasing debate as to which specific teacher variables have greater effect on student achievement. Research findings particularly in the United States indicate the positive effects of teacher education and certification on student achievement (Darling-Hammond, 2000; Ferguson, 1991; Hawk, Coble, & Swanson, 1985). Some educators question the validity of the assertion that teacher effectiveness is largely a function of general academic ability or strong knowledge of subject matter (Ballou & Podgursky, 2000). Ballou and Podgursky insist that teacher effectiveness can also be enhanced through specialized training, often through in-service training. Other researchers, (Avalos & Haddad, 1981; Husen, et al.,

1978) lay claim to the assertion that the academic and professional training of teachers has a direct and positive effect on the quality of teachers' performance and consequently on the achievement of students. These studies identify specific factors such as years of teacher training, the teacher's verbal fluency, competency in the use of learning/teaching resources, teacher expectations of pupils' performance, time spent on lesson preparation, and effective monitoring of student progress and timely feedback are known to affect student achievement (Craig et al., 1998; Oliveira & Farrell, 1993). Additionally, research evidence suggests that factors like class size (Glass et al., 1982; Mosteller, 1995); teacher qualifications (Ferguson, 1991); school size (Haney, 1999), and other school variables may also play an important role in what students learn.

While mainstream literature acknowledges the above factors as critical for student achievement since they enhance teacher competency, they may not be the overriding factor in low-resource contexts (Oliveira & Farrell, 1993; Ofoegbu, 2004). Ofoegbu (2004) in a study of schools in Nigeria noted the significance of teacher motivation (levels of salaries, regularity and timeliness of payment, opportunities for professional development and growth) as critical for teacher effectiveness. According to Leu (2005) the "most critical factor within the school in facilitating student learning is the teacher and the ability of those in leadership positions to shape a collaborative, motivated, and effective teaching and learning community" noting that "teachers' professional attitudes, energy, and motivation is critical, in combination with teaching skills, in creating quality of learning" (p. 22). Craig et al (1998) underscored the importance of morale and motivation on teachers' performance citing the need for education systems to seriously consider financing issues; conditions of service (procedures and practices on appointments, deployment, discipline and transfers); benefits (salary scales, pension schemes, health insurance and housing); and in-school professional support (involvement in

leadership and decision-making, availability of classroom resources and opportunities for professional development). It might be worthy if these variables are considered in programmatic designs aimed at ensuring improvement in educational quality in developing countries.

### **Critique of the School Improvement Approach**

The conceptual framework proposed by Heneveld and Craig (1996) for improvement of learning in sub-Saharan Africa has limitations for use. Much of the supporting evidence is drawn from research that were limited in scope and outside the specific contexts of developing countries particularly Africa. Given this reality, Heneveld et al (2006) refined some of the initial inputs in the framework following research on quality primary education in Africa carried out in four countries-Tanzania, Uganda, Mozambique, and Madagascar with funding by ADEA. The results of the study were used as background paper at ADEA's Biennale on Education in Africa held in March 2006 in Gabon. In a synthesis report of the findings of each of the research in the four countries, Heneveld et al (2006) note the relative importance of contexts and the local environment in the application of the conceptual framework. The report suggests "that a greater focus on teacher-learning processes and how to improve them should drive decisions on which school characteristics to invest in to improve student results" and that "the priorities among school characteristics are most importantly local issues that local research-practitioners should study..." (p. 6). Above all, it concludes that "strategies for improving the quality of primary education need to recognize the potential understanding and insight that comes from local experience" (p. 10). It is these considerations and insights which will frame analysis of my findings of this exploratory study in Chapter six.

Meanwhile, the framework for school improvement proposed by Heneveld and Craig (1996) offer insight into critical external and in-school factors that could have significant impact

on school effectiveness and ultimately educational quality. The framework recognizes the necessity for addressing school inputs, school climate, and enabling conditions for ensuring effectiveness. Moreover, unlike strategies developed and driven by donors such as the World Bank, the framework offers a unique perspective on teaching and learning processes at the school level as a key element of school improvement. Above all, the framework is unique in the sense that it merges the two traditions of school effectiveness and school improvement paradigms to produce an integrated framework.

However, it is clear from the various frameworks analyzed that there is no single recipe for improving schools hence the notion of effective schools throughout the world has created internal contexts within which powerful learning and teaching occurs and have a tradition of continuous improvement (Hopkins, 2000; Harris & Hopkins, 2000). As noted by Heneveld and Craig (1996), educators must take into account contextual factors-international, cultural, political, and economic-to understand and initiate strategies and reforms that could impact student achievement and school effectiveness. One of the major criticisms of the school effectiveness and school improvement paradigms and its programs, according to Lavan (2005), is that by focusing on the whole school or school climate, the strategy tends to abstract itself “both from state funding levels and from conditions of material deprivation surrounding the school” (p. 17). Such programs, according to Lavan, are less likely to address crucial economic factors such as the “true opportunity structures of the employment market”, influence of “teacher salary levels that create low professional commitment, poor morale, and a potential interest in school *ineffectiveness* where teachers can benefit financially from providing remedial lessons to their students who fail in regular classes” (p. 17) citing studies by Casely-Hayford (2000) in Ghana and Daun (1997) in Guinea-Bissau. Addressing these contextual challenges may require some form of external support to direct resources towards issues and factors that are

identified through research for enhancing student achievement. It must be acknowledged though that any support for school improvement involves not only challenges but also, a desire by schools to understand and develop their own capacity to actualize a common vision of effectiveness (Stoll, 1999). The school improvement framework developed by Heneveld and Craig (1996) provides a useful tool for improving educational quality in low resource contexts.

Nevertheless, the framework downplays the importance of some critical factors that are specific to the context in sub-Saharan Africa. Firstly, the complexity of variables required to improve schools ultimately demand increased resources and investments. Unfortunately, many of the countries do not have economies strong enough to increase per capita expenditure of the GDP on education. If anything, any new investments would require increased external funding or borrowing suggesting that the wider political and international contexts could significantly determine the levels of reform to be instituted. Given the enormous financial and technical largesse of donor organizations, developing countries are more likely to continue utilizing donor driven frameworks focused on expansion of access rather than those which focus on improvements in the quality of educational processes at the school level. The challenge, however, is that those developing countries with fragile economies which attempt to utilize mass schooling for “hegemonic, integrative, or productivity enhancing purposes” through the “expansion of modern institutions and the adoption of modern bureaucratic organizations and management” may be doing so “under highly unfavorable structural as well as cultural conditions (Lavan, 2005, p. 15).

Moreover, the framework emphasizes teacher’s attitudes but fails to acknowledge teacher motivation as a critical factor for job related performance. In fact, emerging literature suggests that teacher motivation is a manifestation of a teacher’s attitude to work and interest in the accomplishment of pedagogical processes and professional tasks critical for learning.

According to Ormrod (2003), teacher motivation is important because of its potential to have direct and indirect effects on teacher behavior including increased effort and energy and increased initiation of learning activities. Ormrod concludes that these actions ensure persistence of teachers, enhanced cognitive processing and improved performance. The fact is teachers may only work effectively in situations where their basic human needs are satisfied. Hence teacher motivation has been perceived as one of the key components of teacher effects on performance in low resource environments (Oliveira & Farrell, 1993; Ofoegbu, 2004).

It should be made clear, however, that although there is concurrence among policy makers and educators that teacher characteristics have positive impact on student learning, a clear logical relationship is yet to be established between teacher salary and student achievement (Harbison & Hanushek, 1992). There is however, research evidence suggesting significant relationships between the average teacher salary and examination outcomes at both primary and secondary school levels in Kenya although salaries only accounted for a small fraction of the total variance in performance (Thias & Carnoy, 1972; Carnoy & de Moura Castro, 1996). While this may be true, Craig et al (2003) note that there is however, a “logical conclusion that teacher motivation, attendance, creativity and other factors related to student achievement are bound to suffer” (p. 7) when teachers are paid monthly salaries that are half the basic cost of living. In a study of 772 public school teachers in Nigeria, Ofoegbu (2004), found that teacher motivation could enhance classroom effectiveness and improve schools according to the teachers’ responses. The teachers indicated that they would be adequately motivated if salaries were paid regularly; teaching and learning materials made available, teachers made to attend conferences and workshops, and provided with working environments that are conducive. However, the conclusions of the study are based on information related to the teachers’ perceived needs and opinions rather than an investigation into their existing work

conditions which could affect their effectiveness. In effect, the researcher interpreted perceptions of teachers on motivation as a valid justification for enhancing teacher effectiveness which could be a shortcoming of the study.

Another study carried out by the Canadian NGO Voluntary Services Overseas (VSO) in Zambia, Malawi, and Papua New Guinea explored the relationship between teachers' motivation, performance and education quality (VSO Valuing Teachers Project, 2002). Out of 70 reports from five countries including the three selected case studies, about 50% spontaneously cited teacher motivation as a key constraining factor or contributing factor affecting their placement. A number of volunteers mentioned that teacher absenteeism was a common problem within their schools. In all three case study countries-Zambia, Malawi and Papua New Guinea, the poor absolute level of the teacher's salaries was a significant factor influencing their motivation. The study recommended greater attention to teacher motivation because of its potential to undermine teacher's attitudes and performance. Above all, in spite of the dramatic increase in education reform efforts across the developing world and particularly in sub-Saharan, often based on strategies proposed by donors, there has not been any significant impact on levels of student achievement either in individual countries or in the region as a whole (Heneveld & Craig, 1996). The reasons for this failure are all too obvious as already discussed. It is these considerations that researchers such as Akyeampong (2004) propose utilization of alternate approaches for school improvement. One such alternative is the Whole School Development approach.

### **Whole School Development (WSD)**

The Whole School Development (WSD) approach incorporates some of the key principles and elements of the school improvement framework. It focuses on a more contextualized approach and is sensitive to the realities of Africa and, perhaps relevant to other

low resource countries. The whole school development concept has been described as a visionary expression of educational reform programs that are cross-disciplinary efforts involving the home, school, and community in the intellectual development and personal nurturing of all children in a well organized environment (Hopkins, 1996). The reform seeks to improve school performance by simultaneously aligning all aspects of a school's environment with a central guiding vision. According to Hopkins (1996), this model of school improvement is based on a “strategy for educational change that enhances student outcomes as well as strengthening the school’s capacity for managing change” (p. 32). The model highlights the importance of the concept of school improvement as a process of changing school culture including devolution of leadership at all levels of the school system. Most whole school development programs usually attempt to promote student-centered learning as a strategy to change the instructional culture of schools. Emphasis is placed on developing the learners’ problem-solving skills in the context of group and project work. But more importantly, it also seeks to improve the management and organizational environment.

According to Akyeampong (2004), two important assumptions inform this strategy; firstly, those managing the school from within are considered the critical agents of change. Secondly, “internal conditions in terms of management, ethos, support system etc. are important to motivate and sustain the school’s effort to improve” (p. 5). Based on experience implementing reform models in line with the WSD strategy, Akyeampong identified a number of key elements of the approach- emphasis on efficient school management; improving the quality of teaching and learning; improving the working environment of teachers; and facilitating more community participation in school development. Whole school development framework posits that different dimensions of change are more likely to produce the best results in school improvement, usually in terms of student learning and achievement (Akyeampong, 2004). The

framework is derived from research in developed countries and is founded on the assumption that any attempt at improving the quality of education should focus on the school as the unit of change (Fullan, 1991, 2003; Heneveld, 1994; Heneveld & Craig, 1996). The 'whole school' change concept has been essentially perceived as an education reform strategy that aims to "harness improvements in management strategies, in-service training, monitoring and evaluation and target-setting in school development plans, teacher appraisal, etc. to orchestrate a complete change in the culture and organization of schools to improve performance" (Akyeampong, 2004, p. 7).

Akyeampong (2004), citing relevant literature, notes that in the context of the developing world, the WSD is informed by two inter-related ideas: educational decentralization and change management strategy at school level. Educational decentralization, as understood within the WSD framework, is a strategy intended, first, to enhance the participation and involvement of all key partners in planning and decision making; and secondly, to ensure effectiveness and efficiency in the enactment of policies and the delivery of services. At the core of WSD is the underlying assumption that a decentralized education system is considered more responsive to local needs and nurtures a culture of ownership, partnership, and commitment. According to the Training Programme Handbook (1999), WSD is a "process of effecting positive change in the classroom to be owned by head teachers, teachers, and the community" (p. 4).

Moreover, WSD is basically a proposition for a change management strategy that is concerned with changing the whole school's organizational culture and structure, and also the school-community relations while targeting poor school conditions for improvement. Furthermore, in the context of education in developing countries, WSD programs attempt to promote child-centered learning as part of the move to change the existing pedagogy and instructional culture of schools. It emphasizes the development of problem-solving skills in the

context of group and project work compared to behaviorist approaches such as lecturing. This approach was utilized in Ghana within the framework of the Free Compulsory and Universal Basic Education (FCUBE) program which commenced in 1992. While the FCUBE program reportedly made significant progress in expanding access to education in Ghana, such success has virtually been diminished by the appalling decrease in the quality of education as enrollment continues to grow well beyond the capacity and resources of the national education system (ADEA 2004; Alvarez et al. 2003; UNESCO 2004; World Bank, 2006).

In Ghana, evidence indicates that the WSD has had impact on a number of initiatives such as efforts aimed at decentralized decision-making to enhance local community participation in school development; leadership training for head teachers; school infrastructure; local government support; and capacity building to improve the quality of primary education (Akyeampong, 2004). Further, a World Bank (2004) evaluation report of FCUBE reveals that about “a third of teachers use a student-centered learning approach and use simulations on a regular basis, though about a fifth of the latter could not explain them properly. And about one fifth use cues to help explain difficult words...” (p. 26). However, a National Education Assessment (NEA) report in 2005 shows a national mean of 38.1% and 43.2% for Grade 3 and Grade 6 in English respectively. In Mathematics, the national mean was 36.6% and 34.4% respectively for Grade 3 and Grade 6, indicating pupils’ general weakness in Mathematics. Moreover, the report notes that the percentage of pupils reaching the set minimum-competency and proficiency levels were generally low with only 16.3% in Grade 3 English and 23.6% in Grade 6 English attaining the 55% proficiency level. Similarly, in Mathematics, 18.6% in Grade 3 and 9.8% in Grade 6 reached proficiency level. According to the assessment, girls performed slightly better than boys in English whilst Boys did much better in Mathematics in both Grade 3 and Grade 6 (ESR 2006, p. 61). In general, only 22% of Grade 6

students met minimum reading standards in 2006 according to the NEA report. Further, competency in literacy reportedly declined in Ghana over the last decade. Current data indicate that only 12% of Ghana's youths can read with fluency at 6<sup>th</sup> Grade level which has consequences for the country's human resource development goals. Of those progressing to junior secondary school, only 30% can read and write with fluency according to Hartwell (2006) citing Ghana's New Education Sector Review report.

Other studies seem to support this declining trend in learning outcomes at the basic education level. A report by the World Bank's evaluation team (World Bank IEG, 2006) notes that even in countries where learning improved such as Ghana, absolute levels of student achievement were very low. It notes that in Ghana only 5% of children are reaching the country's mastery level in English. A similar World Bank (2004) impact evaluation report also notes that teacher motivation was waning and that it had a significant impact on teacher output and productivity. The report cites linkage between number of teacher-level variables, such as time on task, the use of improved teaching methods and their monitoring of student performance as having an effect on test scores which in turn depend on school facilities and effective management. Other elements include teachers' perceptions of working conditions which are related to classroom quality and school management in terms of an active PTA and contact with circuit supervisors. In fact, the teachers' attitudes to both their working and living conditions were strongly influenced by whether or not they receive their pay on time hence 28% of teachers often do not receive salaries on time. The report concludes that the "most important single variable in determining test score outcomes is teaching methods" which the FCUBE project funded by the World Bank failed to address in the strategy.

The FCUBE is an excellent example of how context can become a critical factor in strategies for improving educational quality. One major outcome of FCUBE was the introduction

of child-centered methodologies to teachers. However, child-centered learning approaches are a new phenomenon in the socio-cultural milieu of Ghana where, as in most countries in sub-Saharan Africa, the notion of participatory processes may conflict with the existing cultural and societal norms of high-power distance, masculinity (Hofstede, 1997), and authoritarianism. Lavan (2005), in a study carried out in Ghana, notes that the ideas and beliefs about teaching and learning held by primary school teachers and often expressed by them as habits, norms, and rituals of the school as manifestations of the cultural landscape, potentially constitute a significant influence on teacher actions, classroom instructional practices, and their openness to accept changes in pedagogy. Lavan concludes that “disjunctions between teachers discourse and their actions pose challenges of interpretation” (p. 20) of new phenomena and of the concept and process of change.

In the same vein, a study of education reforms in Ghana by Donge (2002) notes that teachers entering the teaching profession do so with the expectation that teaching improves their life chances considerably at the beginning of teacher training, but later are socialised into a negative view of the education profession hence they lose morale and are more likely to be less motivated and committed to their work. In effect, teachers are more likely to resort to traditional authoritative teaching methods such as lecturing and dictation that are less demanding on both human and physical resources. Also, many heads of schools are constantly challenged to revert to participatory decision-making practices which have potential to undermine effective leadership in schools (Hopkins & Jackson, 2003).

Further, in the design of the FCUBE, the expectation was that the involvement of the community in school management would lead to improved outcomes, as communities were perceived to have a direct interest. However, Donge (2002) notes the results have been disappointing partly because “the outward forms are accepted, but the intentions of the policy

change have not been internalised” and that “participatory platforms, for example, tend to become places for ritualised exchanges between teachers and the community instead of places where strategies are spelled out to improve learning outcomes” (p. 6). Further, efforts to decentralise educational administration and incorporate it into the District Assemblies (DAs) have had few results partly because the DA is only marginally involved in education activities. More importantly, school administrators as well as the teachers “categorise themselves as powerless to improve learning outcomes” (Donge, 1992, p. 6). This negative perception, although a subtle reality, is by all accounts the most injurious to efforts directed at improving learning achievement. It is no longer a perceptual issue but the bane of the teaching profession in most sub-Saharan Africa countries.

Finally, the process of improving learning outcomes in Ghana has been perceived, according to Donge (2002), as the “concern of the individual” (p. 6). This perception fits the values inherent in capitalist societies and drives structural adjustment policies. It stipulates payment for services by the individual as the way to improve education services (Arnove, 1997). Ultimately, the “result is a stratification in education between schools where learning outcomes are good or reasonable (private schools and public schools supported by relatively wealthy communities), and public schools that merely depend on government funding” (Donge, 1992, p. 6). Thus education is seen as an investment for those who can afford it contrary to the rhetoric of universality and education’s portrayal as a fundamental human right, often the basis on which major policy in education is made by governments. In effect, the question is often asked- quality for whom and who cares?

Consequently, evidence on the impact of school resources and inputs on learning achievement or outcomes is yet very thin in the context of developing countries. According to Glewwe and Kremer (2005), a survey report based on retrospective studies suggest that given

the “existing education systems in developing countries, providing additional resources may have little impact on learning” (p. 3). They note that “more recent evidence from natural experiments and randomized evaluations paints a more mixed, but far from uniformly positive, picture” (p. 3). Glewwe and Kremer (2005) conclude that education systems in developing countries are largely weak because of low financing which lead to budget distortions; hence incentives for teachers are weak or nonexistent, and that the school curriculums are often inappropriate. Unfortunately, these assertions fly in the face of current donor strategies which are intended to ensure quality education in sub-Saharan Africa. A close look at the World Bank’s Education Support Strategy clearly reveals this anomaly.

The World Bank’s stable support for education since 1990 has focused on three main objectives - universal primary school completion, equality of access for girls and other disadvantaged groups, and improved student learning outcomes. The World Bank continues to promote a variety of strategies for achieving these objectives including improving internal efficiency and building institutional capacity in the 1980s. The Bank aggressively supported girls’ education, improving teacher education, and creating achievement assessment systems in the early 1990s. Further, the Bank insisted on increasing community involvement, school autonomy, decentralization, and early childhood education in the late 1990s (World Bank, 2006). In line with this strategy, the Bank also endorsed the MDG call for universal completion of primary education by 2015 and has subsequently cosponsored the Fast-Track Initiative as a means of accelerating progress toward that goal. More recently, the Bank’s 2005 “*Education Sector Strategy Update*” commits the institution to maintaining momentum on EFA and the MDGs, while at the same time strengthening education for the ‘knowledge economy’ (secondary, higher, and lifelong education)” (p. xiv). The Bank’s strategy emphasizes increased focus on results, system-wide approaches, and closer collaboration with other donors (see Table III). The

efficacy of these strategies has often been called into question by policy analysts, educationists, and some development experts as only marginal improvements were achieved in educational quality.

An evaluation report of the World Bank (World Bank, 2006) notes 75% of primary school investment projects funded by the Bank had an expansion objective, an equal proportion covered equity of access while relatively few projects, less than 60% had objectives to reduce school dropout and repetition rates (improving internal efficiency). The report notes that only “about one in five projects had an explicit objective to improve student learning outcomes” (p. xv). The report concludes that while the projects were concerned with issues of educational quality, this was mainly perceived in terms of delivery of inputs and services. The focus was also on strengthening education sector management and governance rather than school level attributes. According to the World Bank’s independent evaluation report, the proportion of primary lending to countries which account for the poorest 40% of the world’s population more than doubled from 26% to 54% between 1990 and 2005. However, support for analytic work on primary education from 2000 to 2005 remained stable at about 17 products per year. Above all “relatively few of these products have focused primarily on learning outcomes” (World Bank, 2006, p. xiv). Considering the financial muscle of the World Bank, it is likely that elements of each of the strategies proposed by the bank were utilized in, and perhaps, informed the design and implementation of REBEP.

### **Disconnect between EFA Goals and the MDG on Quality Education**

The EFA conference in Dakar 2000 adopted a new Framework of Action with 6 clearly defined goals to be attained by 2015. The sixth goal emphasizes-

Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills (UNESCO, 2000, p. 8)

Of particular significance for this study was that the forum proposed twelve strategic actions at the national, regional, and global levels although it remained unequivocal that it was the responsibility of individual governments to facilitate attainment of the goals by 2015. However, after ten years of implementation, developing countries, particularly countries in sub-Saharan Africa are yet to deliver quality education. The reasons for this are many and varied but are essentially related to lack of resources, paucity of effective strategies to address the problem of quality, and lack of political will. Much of the interventions focused on investments in school infrastructure, education sector management, and governance; aspects that are related to core elements of school effectiveness strategies as exemplified in the World Bank's education sector strategy paper. As a follow up to the Dakar conference, the Millennium Summit was held in 2000 which also reaffirmed the EFA goals as part of an inter-sectoral development strategy. The MDG implores nations to "ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling" (MDG, 2000, p. 12). The MDG for education stresses access and equity, while the EFA goals encompass access, equity, and quality. According to McPherson and Peng (2006), the MDG goals ignored quality aspects of education and focused on having all children complete a full course of primary schooling. By contrast, the EFA initiative which was formalized at Jomtien in 1990 and Dakar 2000 established explicit objectives for "meeting basic learning needs" in the first case, and ensuring that all children "...have access to and complete free and compulsory primary education of good quality" in the second (EFA, 1990; UNESCO, 2002).

These differences have important implications for policy and practice. In practice, according to McPherson and Peng (2006), developing countries and many of their donors (World Bank, IMF, and EU) have concentrated on the goal of achieving universal access because of several reasons. First, it is considered pragmatic to do so; meaning that promoting access

(enrolment and/or attendance) is far easier to measure, monitor, and advertise than efforts to improve quality which has at least eight dimensions. Second, improving quality education suffers from a collective action problem since, according to McPherson and Peng (2006), most “agencies involved in providing education, governments, donors, NGOs, and private operators, may readily affirm their commitment to maintaining quality, yet most of the attributes of a quality education are both difficult to observe and often observable only after extended periods” (p. 13). They note that it could therefore be bureaucratically difficult for stakeholders to monitor and verify quality aspects in spite of earlier commitments. In other words, determining progress in spite of the best intentions of every one involved, requires considerable evidence – historical and current showing that the pressure to expand access to achieve UPE has not been undercutting education quality. Finally, McPherson and Peng (2006) assert that education quality is also being undermined by the phenomenon of diminishing returns, the result of too much being attempted with too few resources and often with inappropriate capacities. Examples of experiences with difficulties involved in maintaining education quality when access is increased rapidly are Malawi and Kenya in Africa, and Brazil, Nicaragua, Peru, and others in Latin America.

Some of the most outstanding cases of declining education quality induced by the hyper-expansion of access in sub-Saharan Africa in countries are Malawi in 1994, Uganda in 1997, Tanzania in 2001, and Kenya in 2003. These resource-constrained, low-income countries experienced sharp increases in primary school enrollments when their respective governments eliminated (reduced) school fees. Since each country had low education quality before school fees were eliminated (reduced), the increase in enrolments overwhelmed the system. In Malawi, primary school enrolment increased from 1.9 million in 1993 to 3.2 million in 1994; and in 2004, primary enrolment was still 3.2 million and the net primary attendance ratio was 82

percent (DHS, 1992, 1996, 2000, and 2004) as cited by McPherson and Peng (2006). Both Uganda and Kenya had similar experiences – a massive initial increase with little subsequent movement in total enrolments. The outcome has been that the newly-enrolled students found themselves in over-crowded and poorly-resourced schools, instructed by unqualified and inadequately prepared teachers whose formal education was cut short in order to meet the inflated demand for teachers.

### **Emerging Perspectives on Quality Education**

Since Dakar 2000, there are emerging perceptions of quality in education. According to UNESCO, quality education and effective schooling is characterized by a number of attributes including learner characteristics, context, enabling inputs, teaching and learning approaches, and outcomes (UNESCO, 2004). The problem with this framework is that it is more of a policy directive far removed from the realities of classroom and/or school practices and processes. Moreover, translating UNESCO's framework to implementable actions has proven difficult in low resource contexts since it demands increased resources and focused interventions at school-level processes while broader system-wide reforms are put in place by governments.

UNICEF on the other hand provides a much broader definition and conceptualization of quality education with emphasis on gender equity and the provision of safer environments to enhance learning. In June 2000, UNICEF outlined five elements and emerging dimensions of quality education in a position paper: learners, environments, content, processes, and outcomes. According to UNICEF, the definition allows for an understanding of education as a complex system embedded in a political, cultural, and economic context and that any response to issues of education quality obviously requires a holistic approach to capture all or most of the critical elements. The definition further takes into account global and international influences that have shaped the discourse on educational quality (Motala, 2000; Piphon, 2000), "while

ensuring that national and local educational contexts contribute to definitions of quality in varying countries” (UNICEF, 2000, p. 2). Unlike the overriding emphasis on improving access and ensuring equity as endorsed at the World Conference in 1990, UNICEF articulates new dimensions of educational quality which had been previously overlooked such as learner readiness, community support, a wider perception of the learning environment (physical, psychosocial, services, etc.) curriculum content (materials, standards, etc.) relevant to the realities in the community (HIV/AIDS, conflicts, etc), instructional processes (students, teachers, supervision, and support), and broader outcomes that encompass both individual and societal goals. In 2004, UNICEF articulated new dimensions of quality education as it relates to gender equity were introduced. The focus on gender equity would later culminate into a global initiative called the United Nations Girls Education Initiative (UNGEI). This new focus on gender equity with focus on access, processes, and outcomes constituted UNICEF’s core strategy for education programming in developing countries for almost a decade leading up to Dakar 2000. In fact, this strategy, combined with inputs from UNICEF informed much of the principles and priorities set forth in the EFA Framework of Action in Dakar.

Almost ten years after Dakar, the impact of both the World Bank’s education sector strategy and the EFA framework for action on educational quality in low resource countries remains less impressive. These efforts and subsequent programs that were developed have mostly been successful in addressing some of the barriers to educational access in some countries. For example, primary education net enrollment rate (NER) increased from 81.7% in 1990 to 84.6 percent on a global scale in 2005 (UNESCO, 2006). In countries with low initial NER, the increase was substantial such as in Kenya and Malawi. Accordingly, new research focusing on new dimensions and factors specific to various contexts significantly changed the quality

education discourse. One such paradigm is the opportunities to learn framework proposed by Gilles and Quijada (2008).

### **Opportunities to Learn (OTL)**

Recent research into educational standards and quality schooling indicate that education policy findings differ sharply from much of what has been known in the past. The research results point more toward performance indicators and opportunities and “less toward regulatory and input-based policies” (Hanushek, 1995, p. 227). According to Hanushek, traditional policies attempt to focus on “optimal set of resources” (p. 228) and through programs ensuring that these resources are available. This gave rise to lines of research that attempt to review the relationship between resources and student performance. However, information about which specific resources have the greatest impact on student performance continues to elude educators and researchers. Yet investments into policies aimed at improving student performance more than doubled in developing countries without concomitant increases in learning outcomes. Given these challenges, Gilles and Quijada (2008) contend that the reason “students are not succeeding is because they lack the opportunity to learn” and that “learning outcomes are below that expected in government primary schools in developing countries despite huge investments in education reform, teacher training, learning materials, curriculum and infrastructure” (p. 2).

The concept-opportunity to learn- is not new, at least in the United States. The US regional organization, North Central Regional Educational Laboratory (NCREL), defines *Opportunity to learn* as “equitable conditions or circumstances within the school or classroom that promote learning for all students. It includes the provision of curricula, learning materials, facilities, teachers, and instructional experiences that enable students to achieve high standards” (para. 1). In the US, the term also connotes deliberate attempts at removing barriers-

both institutional and pedagogical- that prevent learning; hence it has been used as an instrument to ensure educational equity for minority groups. According to Porter (1993), opportunities to learn, historically, were defined as standards that “are to represent what schools and teachers must do if the new curriculum and achievement standards are to be met” (Porter, 1993, p. 1). These standards were proposed to maximize fairness and equity for students. In 1996, National Research Council acknowledged that the most powerful indicators of opportunity to learn include teachers' content knowledge, pedagogical know-how, and understanding of students' progress and learning needs. More recently, the No Child Left Behind (NCLB) Act which was passed by an act of congress in 2002 includes opportunity to learn in its accountability structure. Specifically, the Act notes that lack of equity in the classroom can result in serious adverse consequences for schools and teachers.

While the concept opportunity to learn increasingly became known for its equity undertones in the US, its use is largely embodied in issues of educational quality in developing countries, especially in sub-Saharan Africa. Researchers like Abadzi (2004) and DeStefano et al (2007) have carried out extensive research to draw attention to the relevance of the concept in addressing issues of quality after Dakar 2000. In a study of schools outside the government system in Mali, Bangladesh, Honduras, Egypt, Ghana, Zambia, and Afghanistan, children in community schools are achieving higher learning outcomes with equal or less resources (DeStefano et al, 2007). Also, Gilles and Quijada (2008), in a review of relevant literature, identified eight critical elements which, when fulfilled at a minimum level have potential to create what they describe as a basic opportunity to learn. These elements are the factors that constitute total instructional time, hours in school year, days school is open, teacher attendance and punctuality, student attendance and punctuality, teacher-student ratio, instructional materials per student, time in classroom on task, and reading skills taught by grade.

The assumptions driving the opportunity to learn index is derived from the relatively simple premise that learning is to some degree a function of time and effort. The premise is founded on the linkage that adequate time on task is necessary for learning to occur. Research carried out by Benavot and Amadio (2004) state that “pupil achievement increases when students are given greater opportunities to learn, especially when ‘engaged learning time’ is maximized” (p. 8). Gilles and Quijada (2008) used this premise to assume a direct relationship between learning and the opportunity to learn, noting any reduction in time on task as a result of the outlined factors will have impact on learning. In other words, a teacher that is absent from school reduces potential student learning. Gilles and Quijada (2008) conclude that “while factors such as more effective teaching methods are certainly important, it stands to reason that a good teacher who is absent is not producing” (p. 3). The concept has gained currency in developing countries following the global call for access to quality basic education in Dakar.

Abadzi (2004), in a study of schools in Mali, Honduras, Nigeria, Zambia, Ghana, and the Middle East notes that the amount of time students have to process information has emerged as a key factor in the acquisition of basic cognitive skills. The research indicates that much time is not spent engaged in learning due to factors such as wastage of evanescent instructional time- fewer official number of school days, fewer class hours, teacher absenteeism, student absenteeism, and wastage of class time. In Mali, schools function 70% of the time they should be in service (Kim, 1999). Studies carried out in Guinea and Burkina Faso suggests that split-shift arrangement can potentially reduce time on task, and could have a negative impact on achievement. In Guinea students in split-shift classes particularly in rural schools scored 3.6% points lower in French and 5.6% points lower in Mathematics (Barrier et al, 1998) as cited by Abadzi (2007). According to Abadzi (2007), multi-grade teaching in low-income countries may also result in reduced instructional time.

Nevertheless, some studies (Karweit, 1978; Anderson, 1984; Demfer, 1987) raise doubts about the learning effects of more instructional time although the “presumed positive benefits of instructional time have considerable currency among international and national policy makers” (Benavot, 2004, p. 7). Despite these concerns, the OTL criteria can be used to determine whether school quality is adequate to achieve the desired standards of learning and whether the resources are distributed equitably among schools and districts (Venezia & Maxwell-Jolly, 2007 cited by Gilles & Quijada, 2008)). In Sierra Leone, for example, annual hours of instruction (average-single and double shift) reportedly increased from 886 hours in 2003/2004 to 892 hours in 2005/2006 (ESP-SL, 2007) compared to Egypt’s 1143 hours of actual instructional time in 2001 (Millot & Lane, 2002) as cited by Abadzi (2004). These studies underscore the need for governments to put in place supervision mechanisms that will ensure greater utilization of teachers’ instructional time and improved opportunities to learn for children. As part of the present study, I explored the concept in my analysis with a view to linking the instructional time in the classes observed in my study to students’ performance in a standardized test during the period 2003 to 2008.

In the main, the opportunity to learn framework requires deeper reflection on the elements and factors that ensure learning in the classroom. While time on task is important for understating levels of student performance, it is also necessary to examine why teachers may not be fully utilizing instructional times in school. OTL factors like teacher absenteeism and tardiness, time on task, and instructional time may only be the result or symptom of other intervening variables. These include low teacher morale or motivation arising from teacher dissatisfaction with low salaries, late payment of salaries, unfair recruitment policies, poor working and living conditions in rural areas, and a systemic lack of in-service training opportunities. In a study carried out in Sierra Leone, only about 30 percent of primary teachers

in the survey were satisfied with their jobs (Harding et al, 2005) most of whom were unqualified teachers.

In effect, the OTL indices may be limited in adequately addressing the causes of teacher related elements of the framework. However, its principles may well be useful and applicable to the context in Sierra Leone. A study carried out in Sierra Leone by the Institutional Reform and Capacity Building Project –IRCBP (2005) in primary schools revealed interesting aspects of instructional time in the target schools. The IRCBP baseline survey involved two unannounced visits to primary schools, and the results showed that absenteeism is a serious issue in many schools. About 22% of teachers in the sample schools were absent on the day of the survey. The rate of teacher absenteeism across the country varied from 10 percent in Bo Town Council to almost 40 percent in Moyamba District. In the Western rural district, the rate of absenteeism was 30% in schools while in Kambia District it was estimated at 23%. In addition to tallying teachers who were absent, the study documented the activities of teachers during surprise visits to classrooms. The findings show that fewer than half the classrooms in the sample had teachers who were actively engaged in teaching. There were wide variations among the local councils; in Freetown about 80% of classrooms had teachers engaged in teaching, whereas in Kenema and Moyamba districts only about 20% of teachers in classrooms were engaged in teaching. Many teachers were engaged in non-teaching activities, such as doing paperwork, and disciplining students. Again, many classrooms simply had no teachers in them, about 30% in Kenema, Bonthe District, Koinadugu District, and Pujehun District council schools.

Studies in six other countries show similar outcomes. Chaudhury et al cited by Glewwe and Kramer (2005) reports that when enumerators made surprise visits to primary schools in six developing countries, on average about 19% of teachers were absent. Further, many teachers that were “present” were found to not be actually teaching; for example, in India one quarter of

government primary school teachers were absent from school, but only about half of the teachers were actually teaching in their classrooms when enumerators arrived at the schools. Thus instructional time as an element of opportunities to learn is a serious challenge for achieving educational quality in low resource countries and could potentially blur the effects of other inputs on learning.

### **REBEP's Fundamental Quality Level (FQL) Strategy**

REBEP or SABABU project is unique in several aspects particularly in terms of its design, program strategy, and the underlying conceptual framework. The project is rooted in a modified approach of the effective schools strategy- Fundamental Quality Level (FQL) strategy- which was piloted in a number of developing countries as a means for delivering quality education. The FQL model is founded on the assumption that the school is a social entity or organization. According to Heneveld (1994), "the school is a social system and the interactions among all elements composing this system influence students' learning more significantly than the individual impact of the inputs provided at the school" (p. 10). The FQL approach was adopted in Benin in 1992 as a practical and operational tool for defining, achieving, and monitoring various aspects of primary education quality. Horn (1992), in a memo to the World Bank defined the fundamental quality level (FQL) indicator as "a practical tool designed to operationalize the FQL concept of school quality in a given country. The FQL consists of an agreed-upon, pre-determined set of essential inputs and conditions, and in the long run, processes and outcomes to school quality" (Horn, 1992, p. 4).

Similarly, Agueh and Zèvounou (1994) note that the "fundamental quality indicator system ensures that adequate resources are provided to the schools to meet agreed upon and predefined standards to improve school performance and quality" (p. 4). The success of the FQL at the national level was founded on a number of assumptions which were strongly related to

political, human, financial, and organizational factors. In the political domain, it was assumed the approach would have support from decision makers at central and decentralized levels and that stakeholders should approve and be involved in the definition of quality. Secondly, the strategy was founded on the criterion that resource allocation would be adequate to fund the various elements of the project. Moreover, it was assumed successful implementation required an operational EMIS that collects, processes, and reports credible data on school status at all levels of implementation to enable monitoring and review of progress.

Furthermore, the FQL model was supposed to be a multi-purpose tool that would offer practical framework for planners and policy makers to enable them to plan for an improvement in education quality, manage the related programs and projects, and monitor the educational system at the central and decentralized levels during and after implementation. While the FQL model presumably had a sound conceptual basis that was relevant and appropriate to the specific contexts of Benin, Ethiopia, and Guinea, the applicability of the model in conflict and post-conflict contexts such as Sierra Leone and Liberia remained questionable. In these contexts, school infrastructure had been extensively damaged and education systems completely shattered by years of conflict such that the enabling conditions for attaining FQL were virtually non-existent; hence the thrust of this study. Specifically, there was no operational EMIS in Sierra Leone; resources were clearly limited; and the process of decentralization was still in the planning stages in 2002.

Finally, the limited research on school effectiveness and improvement approaches in developing countries, particularly in sub-Saharan Africa, suggests a need to fill this knowledge gap. Thus, an assessment of the contribution of inputs as outlined in REBEP on education quality, and by extension on learning achievement will provide useful insight for educators and policy makers. It is also hoped that the series of case analysis in the study will help

understanding of any trends in terms of school inputs and resources and their potential effects on learning achievement. The hope is that the study will uncover new directions in the research on quality education and what can be done in low resource contexts to maximize 'opportunities for learning' as countries march toward education for all in 2015.

### **Is sub-Saharan Africa on Track to Deliver Quality Education?**

As a result of the rapid expansion to achieve UPE, educational quality declined dramatically in several dimensions across various Third World countries such as consistently high repetition and drop-out rates. According to by the World Bank, national test data from Bangladesh, Brazil, Ghana, Pakistan, the Philippines, and Zambia all show a majority of primary school leavers to be achieving well-below their countries' minimum performance standards (World Bank, IEG 2006). Additionally, the results in many low-income, rural areas in Third World countries were reportedly only marginally better than for children who have not completed school according to Oxfam (Oxfam Education Report, 2001). In Ghana, for example, where average test scores increased over 15 years, fewer than 10% of students have reached the mastery level in Mathematics, fewer than 5% in English. In India, in 16 of 42 districts grade 3 and 4 students were not performing at the minimum level (40% correct) in language, and a recent independent assessment of literacy levels revealed that almost 50% of 7-10 year olds could not read fluently at the first grade level (World Bank, IEG 2006). Moreover, in countries without trend data, absolute learning levels are also very low. Mastery in French and Mathematics among grade 6 students in 1999 in Niger was 13 and 11%, respectively; in Yemen, grade 6 students' mastery of Arabic and mathematics were 19 and 9%, and in Peru they were 8% for Spanish and 7% for mathematics (World Bank- IEG, 2006).

Similarly, a study by the Southern African Consortium for Monitoring Educational Quality-SAMCEQ (1990-1995) measured primary school students' reading literacy against

standards established by national reading experts and sixth-grade teachers. In four out of seven countries, fewer than half of sixth graders achieved minimum competence in reading (*EFA Global Monitoring Report, 2005*). Low achievement was also evident in the PASEC study (1996-2001), conducted in six French speaking African countries: 14% to 43% of grade 5 pupils had “low” achievement in either French or Mathematics. In Senegal, for example, over 40% of students had difficulty putting in order several numbers with two decimal points (*EFA Global Monitoring Report, 2005*).

A close look at the situation in specific countries reveals disappointing outcomes in sub-Saharan Africa. In Malawi, for example, in 2004, 45% of the grade 1 class repeated while 29% of Grade 8 class repeated (Fair, 2006). According to Ellis (2003), only 22% of those who completed primary school in Malawi could demonstrate minimum literacy skills. Primary completion in Malawi was 31% in 1991 and 58% in 2004 and 18% of pupils (as a percent of total enrollees) had repeated during primary school. The students per teacher ratio in primary school reportedly increased from 56 in 2000 to 62 in 2002/03 (*World Bank WDI, 2003, 2005*). Further, persistence to grade five which in 1991 was 71% for males (57% for females), by 2003, had fallen to 50% for males (38% for females) according to the *World Bank WDI (2006)* report.

In Kenya, following the declaration of Free Primary Education by the new government in early 2003, enrolments surged from about 6 million to about 7.2 million pupils, resulting in a gross enrolment rate of 104% compared with 87.6% in 2002 (Riddell, 2003). This expansion has triggered increases in the pupil/teacher ratio from 32:1 to over 50:1 in most schools. Further, by 2005, only 47% of those enrolled in primary education completed it and only 27% of those eligible for secondary school entered Form One. In fact, the decline in quality has been such that, after the initial enthusiasm for “free” education subsided, parents began shifting their children back into private schools where quality standards were known to be higher (Tooley,

2004). In Tanzania, the Primary Education Development Plan (PEDP) was launched in 2001, which abolished tuition fees and other mandatory cash contributions to schools. The policy was consistent with the EFA target of ensuring the enrolment of all 7-13 year-olds by 2006. A gross enrolment ratio of 98% in 1980 had declined by the early 1990s to below 70%, and in 1999/2000, the year before FPE was introduced, the gross enrollment rate was even lower, 63%, the net enrollment rate reaching only 46.7% (Riddell, 2003). There were severe shortages of classrooms, desks, instructional materials and teachers' housing, as well as insufficient numbers of teachers to cater for the school-aged population.

In Sierra Leone, a country that was plagued by ten years of war, primary school enrollment rose dramatically from 659,503 in 2001/2002 to 1,280,853 in 2004/2005 (MEST, 2007), a 94.2% increase. This has led to a very high teacher-pupil ratio of 1:66 and 1:112 for qualified teachers. Even with these high enrollments being envisaged, about 25%-30% of primary aged school children are out of school<sup>2</sup>. While some countries like Botswana made relative progress in terms of quality ensuring that by 2004 the primary completion rate was 92% (90% male, 94% female), it was more the result of the government's long-term commitment to education supported by sustained budget allocation to education up to 26% of GDP (McPherson & Peng, 2006). The Education and Research Network of West and Central Africa (ERNWACA) in 2002 explained the decline as follows:

Poor quality within educational systems is reflected largely in teachers who are poorly qualified and who lack teaching skills, in poorly equipped classrooms, and in overcrowded schools. The results are high dropout rates at the end of the primary cycle, due to grade-repetitions in sixth grade and expulsions, and low retention rates during the primary cycle itself, caused by grade-repetitions, which in themselves represent a very high additional cost for parents (ERNWACA, 2002, p. 4).

At the global level, a World Bank and UNESCO report (Table 4) reveals that primary completion rates only increased slightly from 56% to 72% in Cameroon and from 63% to 65% in

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<sup>2</sup> Samuel Bangura (2008). Sierra Leone: Caps on teacher recruitment lead to poor quality. ActionAid (SL), Sierra Leone.

Ghana between 1991 and 2004 compared to completion rates of 100% in Bolivia and 101% in Vietnam. In Ghana, the Net Primary Enrolment rate was recorded at 58% in 2004 compared to 100% in Bangladesh and Cameroon. These patterns of low completion and retention as well as learning outcomes drew widespread attention from across international agencies and governments in Africa for concerted efforts to address the critical issue of declining quality, hence the thrust of this study.

**Table 4: Key Education-related MDG Indicators from Selected Countries**

	<b>Bangladesh</b>	<b>Bolivia</b>	<b>Cameroon</b>	<b>Ghana</b>	<b>Honduras</b>	<b>Vietnam</b>
Primary Completion Rate 1991	49	71	56	63	65	95
Primary Completion Rate 2004	73	100	72	65	79	101
Gender Parity -- Primary 1991			83	99	103	
Gender Parity -- Primary 2004	106	98	87	101	95	94
Prim. Pupil/Teacher Ratio 2004	54	24	53	32	34	23
Gross secondary enrolment 2004	51	89	44	42	45	73
Gross tertiary enrolment 2004	7	41	5	3	16	10
Male Literacy (Adults) 2002	50	93	77	63	80	100
<b>EFA Development Index</b>						
Net Prim. Enrolment Rate 2004	100	95	100	58	91	93
Adult Literacy (female) 2004	31	80	60	46	80	87
Gender Parity Ratio (P&S) 2004	106	98	87	101	95	94
Female survival to grade 5) 2003	54	86	63	65	69	88
Index Total	73	90	78	68	84	91

*Source: World Bank, World Development Indicators, 2006 (Adapted from McPherson & Peng, 2006).*

## **Chapter Summary**

In this chapter, I examined the history of global efforts to achieve universal primary education and later quality basic education for all since the World Education Conference in 1964. Subsequent conferences in Jomtien (1990) and Dakar (2000) further laid the foundations for sustained efforts at achieving educational quality. The chapter outlined key strategies and approaches, and examined the FQL strategy as an off-shoot of the effective schools strategy usually adopted by donors and funding agencies. The thrust of arguments in the chapter is that whereas much has been achieved in terms of expanding educational access and ensuring gender

equity in most developing countries, such success has virtually been diminished by the appalling decrease in the quality of education and specifically on learning achievement.

## CHAPTER 4

### RESEARCH APPROACH AND METHODOLOGY

In this chapter, I begin by discussing epistemological issues relating to the design of the study followed by a detailed examination of the theoretical underpinnings and merits of a case study approach. The chapter also outlines the specific research methods utilized, data collection techniques, data analysis, limitations of the study, ethical considerations and a reflection on my role as an 'insider-outsider' in the process.

#### Research Approach

While the objectives of the study may be simple and straightforward, undertaking a systematic research and evaluation exercise may be far more complex and difficult in actual practice. The challenges may relate to design and methodological issues, the scope and depth of the study, resources at the disposal of the researcher, time, and feasibility. In effect, the process is akin to a journey, both iterative and reflective. As noted by Rossman and Rallis the process ultimately "entails reflecting on ...personal epistemologies" (Rossman & Rallis, 2003, p. 33), with the sole aim of understanding phenomena and often constructing knowledge.

I was enthused with the prospects of undertaking an evaluation study given my fascination with qualitative research and program evaluation theories. As typical with amateur researchers, I was caught between the need for scientific rigor to maintain integrity of the process and ensuring utilization of the findings. The choice was clearly paradigmatic; a choice between experimentation and qualitative methodology. This choice between what so-called positivists would describe as 'contrasting' approaches was further complicated by the scope of the REBEP project. The project had been expanded to 461 primary schools on full grants; 922 primary schools on partial grants; 90 junior secondary schools on full grants; and 22 junior secondary schools on partial grants spread across the entire country. Initially, I had proposed a

quasi-experimental design but this approach seemed unrealistic given the differences in the levels of support provided to schools, the time at my disposal, and the limited resources.

In addition, experimentation as a quantitative method presumes the “pre-existence of truths to be uncovered, as compared to the idea that ‘truths’, at least to an extent, are constructed in the process of research” (Frankham, 2009, p. 2). Frankham argues that positivism and the entire gamut of quantitative methods have a tendency “for separating the knower and the known and for ignoring the situatedness of knowledge” (p. 2). As a student researcher, I was confounded by these notions against the background of my personal conviction that knowledge is socially constructed. As noted by Hartsock (1997), positivist knowledge is “discovered from nowhere in particular” (p. 369). Epistemologically, I was challenged to consider other options. Moreover, international development has over the years been acknowledged as one field that utilizes participatory approaches in evaluation considering the “basic operational principle of development programming” (Ackerman, et al, 2003, p. 7). This widely accepted collaborative principle has been extended into the monitoring and evaluation arena of development projects. As a result, research approaches such as Participatory Rural Appraisal (PRA), Participatory Action Research (PAR), Community Based Participatory Research (CBPR), and Appreciative Inquiry (AI) have more or less become the bane of development research (Frankham, 2009). Thus I felt that a participatory approach could be, perhaps, more appropriate given the focus of the study.

However, I was not convinced that the socio-political context in Sierra Leone was ideal for a participatory approach because of a number of reasons. The first was that the REBEP project had already been characterized by the government as corruption ridden and mismanaged thereby fueling a negative public perception of the project. In fact, a commission of inquiry had been established to investigate implementation of the project and the process was ongoing. Further, the investigation could potentially constrain participation by major

stakeholders and beneficiaries who were in constant fear of a possible witch hunt exercise. In addition, there was the consideration that in its true form, participatory research should by its principles include research participants or stakeholders in the design and research process but ceding overall control to the academic or consultant researchers (Bennett, 2004). Unfortunately, there was no way that I could have shared or ceded control of the ideas, processes, outcomes, and conclusions given the limitations in terms of the nature of the study itself (dissertation research), spatial factors, and resources. Thus, while the participatory approach would have been ideal and appropriate as a development practitioner, it was however not feasible and conducive given the spatial divide, limited resources, time, and the socio-political context.

Nevertheless, I was concerned with utilization of the evaluation findings considering that my initial motivation was to share the results with stakeholders and policy makers. As noted by Patton, utilization-focused evaluations are premised on the assumption “that evaluations should be judged by their utility and actual use...” (Patton, 2004, p. 277). The task, therefore, for the evaluator is to initiate a process for engaging intended users to select relevant content, methods, theory, and various uses for a specific context. While I was attentive to this critical issue of user utilization, there were obvious constraints to be overcome to foster this outcome. I realized this was only the beginning of a series of ethical dilemmas I had to confront in the course of the study. The question that kept coming up in my mind was how would this affect my desire for objectivity even though I knew theoretically that evaluation studies are neither neutral nor objective (Weiss, 2004)? Weiss nonetheless insists that evaluators “do the best that our knowledge, skills, and professionalism allow to represent the realities we see” (Weiss, 2004, p. 155). With these words, I felt encouraged to do my very best in order to maintain integrity of the process in a rather challenging circumstance. Given these emerging

challenges, my choices were clearly limited; hence I chose a case study approach as a more pragmatic option using mix-methods.

### **Case Study Approach**

In the field of evaluative research, case studies are considered one of the most frequently used designs. It draws its strength from the depth of its investigation and analysis and the spread of the methods used. While it draws heavily on qualitative methods as was typical in the 1970s (Stake, 1978), it also employs quantitative methods. Case study research is characterized by an in-depth analysis of a bounded situation (Merriam, 1998) with the goal to understand complex social phenomena. By using case studies, researchers seek to understand the larger phenomena through intense scrutiny of a specific case or situation. Case studies are therefore described as being “descriptive, holistic, heuristic and inductive” (Rossman & Rallis, 2003, p. 104). The key principle in the use of case studies by researchers is the specificity of the context and its relevance to the study objectives. According to Yin (1999), a case study approach by its nature and substance “tolerate(s)” ambiguities in the boundary between a “phenomenon” and the context (Yin, 1999, p. 1211). Yin emphasizes that the “all-encompassing feature of a case study is its intense focus on a single phenomenon within its real-life context” (p. 1211). A case study approach allows for “flexibility” for researchers to study the phenomenon or “case” and the context, as they unfold over time. Yin approaches case studies from a positivist perspective, combining qualitative and quantitative methods to achieve what Fitzpatrick et al (2004) refer to as the “three purposes for case studies: description, explanation, and exploration” (p. 307). Yin is particularly noted for articulating the merits of case studies in research and evaluation. Yin (1994) belongs to a tradition of researchers known for emphasis on building knowledge or theory from case studies. Stake (1995), on the other hand, relies on a more interpretivist approach (Fitzpatrick et al, 2004) with a strong qualitative bent. Using case

studies, researchers are able to “retain the holistic and meaningful characteristics of real-life events” (Yin, 2003, p. 2). According to Fitzpatrick et al (2004), case studies are characterized by three distinguishing features. The first is the focus on a selected case or cases; then a desire by the researcher for in-depth understanding of an issue; and finally, collecting the data in different ways. Selecting a case can become a major challenge as the rationale could be based on factors such as the depth and breadth of the desired study, how simple or complex is the issue, or how typical or unusual is the case.

### **Defining the Case Studies**

Researchers and evaluators are constantly in dialogue as to what constitutes a case study as a research approach and a qualitative research genre as opposed to ethnographical or phenomenological studies. Some scholars (Stake, 2000; Yin, 2003) consider case studies as an “overall strategy” (Rossman & Rallis, 2003, p. 104). Yin (2003) describes a case study as a “comprehensive research strategy” (p. 14) involving design, techniques of data collection, and data analysis. Merriam (1998) defines case studies as “intensive descriptions and analyses of a single unit or bounded system such as an individual, event, group, intervention or community” (p. 2). Other researchers perceive case studies in a much narrower sense. Wolcott (2002), for example, perceives a case study simply as a “format for reporting” (p. 101).

For this study, I refer to a case study as a unit of analysis, a form of inquiry, meaning making, and knowledge creation. In this sense, my goal is to explore a practical problem to enable deeper understanding of the issues through asking what, why, and how questions. Beyond understanding, I also aim to be inductive as a step towards contributing to knowledge on the issues and challenges associated with the delivery of quality education in a low resource environment herein referred to as the particular context. As I proceeded with the choice to use

a case study approach, I also kept in mind that my conceptualization may not be perfect and that I would require constant reflection as the process evolved with time.

The differing contention on the definitions of case studies is certainly not new in qualitative research. As far back as 1995, Stake remarked that it was impossible to define case study research distinctively because of its wider use across a variety of disciplines. The major differences in case studies relate more to the purpose and context of a study. According to Yin (2003), the purpose of case study research is most often related to the instrumental form of case study research as opposed to the intrinsic form earlier identified by Stake (1995). Despite these conceptual differences, common characteristics of case study research that are widely accepted include the in-depth nature of the process within a bounded system. Also, the use of multiple data collection techniques, often a mix of quantitative and qualitative methods and the significance of the context in the research is equally important.

In terms of purpose, my study could be considered largely as an instrumental form of case studies (Yin, 2003). It is instrumental because it is essentially exploratory, descriptive or explanatory in purpose. The scope and purpose used in case studies research in my judgment resonated with the goal of my study. I chose case study research for the opportunity to engage in in-depth research and analysis of the REBEP project- its logic and philosophy, strategies utilized, actions taken, and outcomes accomplished. It also involved engagement with the project staff, contractors, sub-contractors, NGOs, educational functionaries, the community, teachers, and children. Accepting that evaluation is intended to be situation specific, a case study design will enable discovery of the attributes unique to the REBEP project. The goal here is not to generalize the findings to other settings, the focus of many research endeavors. Rather, the focus is on “particularization, not generalization” (Stake, 1995, p. 8). In line with Stake’s assertion, Lincoln and Guba (1985) submit the goal of a case study is to develop “thick

descriptions” as cited by (Fitzpatrick et al, 2004, p. 308), or to enhance thorough and complete understanding of the case. With this in mind, I proceeded to choose the appropriate research methodology.

### **Research Methodology**

The choice of methods in any research enterprise is typically derived from the nature of the questions the researcher sets out to answer. Any preference for a particular set of methods over another may also be related to the purpose of the research. Beyond the purpose, the choice of methods is often embedded in what Creswell (2003) describes as the “philosophical assumptions about what constitutes knowledge claims” (p. 3), and how a research should proceed. Researchers may choose to use either qualitative or quantitative methods or a combination of both (Patton, 1990). Quantitative and qualitative methods may also be used complementarily in a study (Patton, 1990; Fonow & Cook, 2005).

I chose to use mixed-methods for my study because of the need to fully understand the complex issues involved and the relationships among variables at play in the project. Understanding of these variables was necessary for determining the achievement of project outcomes and isolating the factors that contributed to the process. The study commences with the use of quantitative and qualitative methods concurrently to enable deeper exploration, explanation, analysis of each case, and cross-case analysis (Miles & Huberman, 1994) of the selected cases. In order to collect quantitative data, questionnaires were administered followed by quantitative data from project reports and results of the National Primary School Examination. Qualitative data on the other hand was collected through interviews, observations, focus group discussions, and field notes. I was convinced that collecting and analyzing these diverse data would yield better understanding of the research problem since it will ensure triangulation of results (Creswell, 2003). The literature on mix-methods dates back to the early

1960s and is still evolving. Creswell (2003) attributes its evolution in Psychology particularly the work of Campbell and Fiske (1959). Interest has grown over the last two decades from researchers and evaluators with the growing need for convergence and triangulation of data sources (Jick, 1979). Christ (2007) notes that since Bryman (1988), Brewer and Hunter (1989), and the views of Greene et al (1989) on combining qualitative and quantitative methods in social science research, the use of mixed methods has increased in popularity. Some researchers (Creswell, 2006; Tashakkori & Teddlie, 2003), Onwuegbuzie & Johnson, 2004; Yin, 2006) however, question the element of time involved in the research process and often difficulties researchers have with what sequence is appropriate and how data analysis should proceed. These concerns, although noteworthy, do not negate the potential of mixed methods as a research methodology for collecting and analyzing data.

More recently, researchers like Tashakkori and Teddlie (2003) and to an extent Creswell (2002, 2006) have sought to expand both the application and conceptual framework of mixed-methods in evaluation. According to Christ (2007), mixed methods approaches are influenced by “postpositivist philosophical viewpoints” (p. 226) articulated by constructivist theorists such as Lincoln and Guba (2005). They are characterized by boundless flexibility contrary to notions put forward by Yin (2006) on the need for researchers to “use preconceived procedures including overarching research questions that cover both the quantitative and qualitative phases of the study” (Christ, 2007, p. 226). Yin’s proposition could be restrictive for exploratory research studies such as the one I undertook. I used mixed methods with the goal that the findings from one method would inform the other in a synergetic relationship. I believed that I needed to dig deeper to, for example, understand what inputs were making a difference in each school or case in the opinion of the teachers, or why school management committees were not functional, or why teachers were not preparing lesson notes. The data derived through qualitative methods

helped to substantially enrich understanding of the nuances in each school which could not be obtained through a questionnaire. While this is so, I chose a concurrent strategy as opposed to a sequential strategy (Creswell, 2003). The choice took into cognizance the basic procedures to implement the strategy in terms of how the methods were to be integrated, and which method should take priority over the other.

Based on these considerations, I chose a “concurrent triangulation strategy in an attempt to confirm, cross-validate, or corroborate findings within a single study” (Creswell, 2003, p. 217). The strategy allowed for integration of the results during interpretation and analysis of the data either by noting points of convergence of the findings or attempted explanation of the lack of such convergence. This strategy tied in with the issue of the apparent lack of homogeneity in terms of inputs and levels of intervention in schools which could significantly affect comparability and analysis. Moreover, the mixed-methods strategy was ideal for obtaining statistical and quantitative data which was then followed up with interviews and observations to further explore the results in depth. Finally, the strategy helped me to further explore the participants’ views on the issue of quality with the intent to utilize these views for adaptation in similar settings (Creswell, 2003, p. 100).

Finally, I selected six schools or cases for study-five that received support and inputs from REBEP and one school that did not. The objective was to examine each case on its own merit and integrate the findings in a cross-case analysis. An in-depth study of each school would potentially shed light on the effects of interventions in each school. The approach sought to catalog the state of each school before and after the intervention including the levels of performance of students in the National Primary School Examinations (NPSE) before and after the intervention. Based on the findings, an attempt was made to identify trends and patterns in school performance over the project cycle; hence, the five schools were purposively selected for

the case studies. It must, however, be noted that the choice of the research approach-Case Studies- was by no means an acknowledgement that it was without any disadvantages. Rather, its use was prompted by a desire to ensure a certain level of integrity of the research process as well as ensuring minimization of any distortions arising from the variance in type and level of inputs in each of the targeted schools. The hope was that the approach would ensure both the reliability and validity of the research findings.

### **Research Participants and Sampling**

The process for selecting participants commenced with the choice of schools for the case studies. I chose to study schools from two rural districts out of a total of 14 districts; the Western Rural district, and Kambia district in the north of the country. The Western Rural district is close to the capital city and could be considered as having peri-urban characteristics. Both districts have similar socio-economic characteristics-fishing and agriculture. The Western Rural district is 20 miles off the capital whilst Kambia district is along the border with Guinea about 126 miles from Freetown. The population of Kambia was estimated at 270,000 in 2004 compared to 174,000 for the Western Rural District (Census Report, 2004). Kambia district has an estimated 163 primary schools with about 64,348 pupils enrolled in 2004/2005 academic year compared to the Western Rural district with 140 primary schools with total enrollment estimated at 52,857 (Annual Statistical Digest, 2008). The literacy rate was estimated at 32% for both sexes (males 48% and females 18%) which is well below the national average of 39%. The literacy rate for the Western Rural district on the other hand was estimated at 52% (Males 62% and females 42%) which is the second highest in the country (Census Report, 2004).

Both districts compare favorably with other districts in terms of education- centralized education systems; government supported and supervised schools; and students take the same national examinations. The two districts were therefore chosen through purposive sampling.

Similarly, each case was selected purposively based on considerations such as spatial distribution and proximity; ease of access; type of ownership (mission-owned or government owned); type of support received through REBEP; and above all time and convenience.

At the district level, 2 schools were selected from the Western Rural district through purposive sampling; one a community school and the second a mission-owned school. Both schools are in close proximity, supported by government, and received full grant support (training, construction, and core textbook supplies) from the REBEP project. In Kambia district, 4 primary schools were selected-2 received full grant support, 1 received partial support, and the fourth no support from SABABU project. Of the four schools selected for the study, 3 were mission owned; 2 owned by the Catholic mission, and 1 by the Muslim Brotherhood mission. The fourth school is run by the Kambia District Education Committee, which was established by the government. One of the catholic mission schools did not benefit from the SABABU project and was used as the 'control' for the study. In terms of school performance at the NPSE, the outcomes were fairly comparable over the last five years for the six selected schools. It should be noted that at the time of the study in December 2008 and January 2009, it was discovered that the number of targeted schools had been increased: a) primary schools on Full Grants- 461; b) primary schools on Partial Grants-922; c) junior secondary schools on Full grants -90; and d) junior secondary schools on Partial Grants – 22.

Moreover, even though junior secondary schools were targeted by the project, I decided to restrict the focus of my research to primary schools which is where, in my opinion, the foundation for improving educational quality must be laid. The participants who took part in the study were drawn from each of the schools-head teachers and class six teachers identified by the head teachers. I chose to focus on class six teachers because of the need to link their instructional practices to students' performance in the NPSE. Class six teachers are normally

considered the most qualified and capable teachers at the primary school level. The inspectors of schools from each district were selected for interviews in addition to interviews with the Director of the Inspectorate, the SABABU Project Coordinator, and one official from ActionAid (Sierra Leone).

### **Data Collection Process**

A fundamental guide in the study was the desire to ensure both the trustworthiness and integrity of the process and the findings. Rossman and Rallis (2003) define trustworthiness as the degree to which qualitative research conforms to set standards for “acceptable and competent practice” and for “ethical conduct with sensitivity to the politics of the topic and setting” (p. 62). The authors emphasize a study can meet accepted standards for practice but if not ethically conducted, may fall short in integrity. In my view, trustworthiness transcends the traditional notions of reliability and validity to include not only ethical issues in research but also whether the findings can stand the test of time and utilizable by stakeholders. In effect, the selection of data collection methods and techniques can potentially undermine trustworthiness if the data is adjudged to be fundamentally flawed. I then became concerned as to how my study should conform to standards of competent research practice and protocol. The choice of methods also included how to proceed in terms of sequencing. I read extensively on the issue of quality and analyzed several documents, research reports and strategies on the delivery of quality education. The process of collecting data started whilst I took courses in qualitative research methods, program evaluation, teacher development and educational planning. These resources, combined with the REBEP program logic proved very useful in formulating my research questions, identifying types and sources of data needed, and analytic tools that I would use. With this in mind, I developed a preliminary evaluation matrix in my prospectus which more

or less guided the choice of methods used. I eventually narrowed down the choices into two broad categories-qualitative and quantitative methods.

One experience in the field worth sharing was the strategy I used to gain access to research sites and participants. Before my departure, I contacted potential participants and key personnel in both the Ministry of Education and REBEP Project Coordinating Unit. I knew and had in fact worked and collaborated with some officials whilst I was employed as a Project officer at UNICEF (Sierra Leone). Upon arrival, I learnt that the substantive head of the West African Examinations Council (WAEC) was indeed a former colleague and friend. I needed information and data on the performance of each school in the NPSE over the last five or six years. I fully utilized these personal contacts to my advantage. But first, I needed to reciprocate, which is recognition of the “need for mutual benefit in human interaction” (Rossman & Rallis, 2003, p. 159). To enhance these relationships, I had to fulfill certain expectations of a ‘researcher from the United States’ and an acquaintance. I prepared for these expectations with modest artifacts from the US.

As for the schools, I knew there were likely to be shortages of stationery and teaching aids. I contacted colleagues at UNICEF who provided me with calendars, pens, packets of duplicating paper, and a new manual on human rights for children for distribution. These artifacts and gifts resonated with most of the officials and school personnel, who in turn provide me unfettered access to information-project proposals and reports, evaluation reports, NPSE results, interviews, and focus group discussions-in a timely manner. Notwithstanding these relationships, I portrayed absolute professionalism in the conduct of the research by clearly outlining the purpose of the study, their rights as participants by administering consent forms, and setting the boundaries for their participation. At this point, I was ready to proceed with data

collection. By the time I left the study sites, I was confident that the process had been mutually beneficial.

### **Qualitative Methods**

Qualitative research is systematic inquiry which involves making decisions on research purpose and objectives, data gathering, data analysis and interpretation, and reporting the findings (Rossman & Rallis, 2003). For the purpose of my study, I chose to do document reviews, interviews, focus group discussions, and observations and field notes.

#### **Document Review**

Documentary review was a very important component in the initial phase of my research including developing the conceptual framework, formulating the research questions, and designing the research process. It was also useful for identification of the problem, selection of research sites and participants. Archival data such as the NPSE test-scores for the schools for the period 2003 to 2008, status of projects in execution reports (SOPE), and news reports online helped shape the focus of the study in diverse ways. Moreover, document analysis provided important background information on the implementation of the REBEP project and insights into the project's operational mechanisms and processes. These documents included amongst others the REBEP Project Partnership Manual-2003; World Bank Project Appraisal document-2003; Status of Projects in Execution: Africa Region: FY2003 - FY2008; Sierra Leone Poverty Reduction Sector Papers (PRSP); National Recovery Strategy Assessment Report (2003); Sierra Leone Education Policy-Master Plan (1995); and the Sierra Leone Education Sector Plan-2007.

Two reports were particularly handy and timely for the study; the Report on the Assessment of Teacher Training in the REBEP/SABABU Education Project which was submitted in November 2008, and the West African Examinations Council NPSE Statistics of Entries and Results (2005-2008). The teacher training assessment was funded by UNICEF as part of a

monitoring and evaluation plan of the REBEP teacher training component. The report was useful for number of reasons; firstly to validate some of the findings in the report through my study and field experience. Secondly, it provided statistical data on the teacher training component and an “assessment of the effectiveness and impact of the training program” (UNICEF-Sierra Leone, 2008, p. 6) carried out between 2003 and 2007. This insight was useful for discussion and analysis of findings on teachers’ instructional practices and teacher quality as observed in the field compared to the assessment team’s findings. One important issue was that this evaluation exercise was funded by UNICEF, the implementing agency for the teacher training component. While I do not question the validity and trustworthiness of the findings of the evaluation team, I however do know that program evaluation exercises are often carried out to give programs an “aura of legitimacy to the enterprise” (Weiss, 2004, p. 158). Thus I was hopeful my field experience would either corroborate or invalidate the findings in the report. The National Statistics of Entries on the other hand provided analysis on school performance at the national and regional levels, while the NPSE results provided data on individual and school level performance for each year since 2003. Both of these sources helped me determine performance trends or patterns in each school. It also served as a basis for analyzing the schools performance in the NPSE against the performance of the general population during the period of implementation of the project.

### **Interviews**

Prior to my departure for the field, I had proposed to conduct research in five REBEP supported schools. However, I changed this decision to six schools, the sixth being a school that had not received any support from the project. The sixth school could in a sense be described as the control but this study was neither an experimental nor a quasi-experimental one. However, for analytic purposes, I thought it might be useful to know how REBEP supported schools would

compare with those that did not receive such support. Thus for each school, I conducted a series of in-depth and/or informal interviews as follows:

In-depth Interviews/Informal interviews

- Director of the Inspectorate Division – x 1
- Inspectors of schools x 2
- Head Teachers x 5
- REBEP Programme Coordinator x 1
- Implementing agencies/sub-contractors x 1

Attempts were made to schedule interviews with officials at the World Bank and ADB country missions. This was not possible because most of the expatriates had proceeded on vacation for the Christmas. One head teacher could not be interviewed since he served both as the head of the school and the teacher for grade six. I had already administered three questionnaires to him which provided useful information for the study. The interviews were open-ended although I had prepared an interview guide for each set of interviews. While doing some of the interviews, it occurred to me that the respondents were looking for such opportunity to assess the overall support given to the school through REBEP as well as their frustrations with being marginalized in monitoring project activities such as school construction and teacher training. Also, some of the newly appointed head teachers seemed cagey with what information to disclose to me despite assurances of confidentiality. For example, I observed that some teachers felt uncomfortable when asked to produce inventories of textbooks supplied so as to match these with the stock at hand. Could it be they were still apprehensive of the ongoing commission of inquiry or did they themselves have something to hide? Above all, I noticed that record keeping was a problem in almost all of the schools observed. Data was almost always either not available or incomplete. The interviews were later transcribed and coded for analysis.

## Observations and Field Notes

Observations were a critical aspect in data collection. Not only were observations made in respect of school facilities and structures, textbooks supplied, but also in terms of teachers' classroom management and instructional practices. I developed two instruments for classroom observations which were adapted from an IEQ II (USAID) survey instrument initially developed by Save the Children/US in Malawi (1996) for a similar study on school improvement.

- Classroom observation instrument (7), and
- Teacher observation and lesson plan review (7)

I observed at least one grade six teacher from each school as well as spent brief moments with a few others whilst they taught lessons. In one school, SDA primary school, Waterloo, a second class six teacher, the only female, was observed at the request of the head teacher. The objective was to determine whether there were any differences in instructional practices between male and female teachers and to ensure gender representation. I selected grade six teachers because I wanted to initially assess the performance of these teachers so as to better understand and analyze the NPSE results which children take in grade six. I informed the head teachers of my visits but deliberately refused to disclose to them which teachers were to be observed. My goal was to see the teachers in their natural setting and informing them ahead would have made such teachers prepare for my visit. In other words, I was attempting to minimize the Hawthorn effect (Wikipedia, 2007), a psychological response in which subjects alter their behavior because they are aware of their participation in a study. This strategy proved very helpful to assess the instructional practices of the teachers and have insights into the specific learning opportunities that existed in each school. At each school setting, I kept field notes on school facilities-structures, infrastructures, equipment, school records, school discipline, teacher conduct, instructions, informal comments, and the school environment in general. To help with processing of the data, I video taped lessons during classroom

observations to ensure accuracy and ensure triangulation of the findings. I also took pictures of specific structures and events both in the classrooms and outside.

### **Focus Group Discussions**

Focus Group discussions provide another important source of data in qualitative research. Specifically, the problem-posing approach, which entails raising issues and themes for group discussion and analysis, is helpful for triggering group responses. Wilkinson (1999) presents the advantages of focus group discussions in research, underscoring its usefulness in addressing the problems of artificiality, decontextualization, and exploitation of research participants inherent in positivistic research. DeVault (1991) notes that focus groups allow for the opening of “standard topics from the discipline” (p. 233) as it enables participants to determine the research agenda, express their own thoughts and feelings and to use their own language rather than the researcher’s language. It also allows the researcher to listen to their voices. However, focus groups discussions may pose problems in research as it can potentially subdue the voices of those who may lack power or the marginalized particularly in societies with high power distances (Hofstede & Hofstede, 2005). The challenge for qualitative researchers is to balance this apparent loss of power or loss voice with the need to collect relevant and useful data and optimize the goals of the research, while paying careful attention to unequal power relations inherent in group interactions.

As part of the qualitative research component, I had planned to conduct five FGDs with head teachers, teachers, and the school management committees. I developed the discussion guide which was piloted by one of my research assistants in a sub-urban school in Freetown. I could not conduct five FGDs given the limited time at my disposal. Also, most teachers were not willing to stay after school to engage in such discussions. As a result, only one FGD was conducted with a mix group of 12 participants- 1 head teacher and 11 teachers (7 females and 5

males). The discussions took place in a classroom at lunch time lasting for almost forty five minutes. The discussions were recorded and transcribed. In my judgment, the presence of the head teacher did not deter participants from freely airing their opinions on the issues discussed- REBEP project accomplishments, challenges teachers and pupils face, resources and financing issues, school management committee participation, and teacher motivation. While the findings can not be generalized to all the cases and across other schools, they provide insights into some of the issues that are critical for ensuring quality in primary schools in the country.

### **Quantitative Methods**

In order to fully and accurately capture the relevant data for analysis, I administered questionnaires as a quantitative method. Questionnaires are research instruments “that ask the same questions of all individuals in the sample” and “respondents record a written response to each questionnaire item” (Gall et al, 1997, p. 289). There are obvious advantages for using a questionnaire over interviews in an evaluative study. A questionnaire typically “requires less time, is less expensive, and permits collection of data from a much larger sample” (Gay & Airasian, 2000, p. 281). However, in a typical descriptive research, they are limited by the fact that the researcher predetermines the variables to be surveyed or the responses expected. This could limit respondents’ answers; hence “the researcher’s views and conceptions of the problem are more important and valid than those of the participants” (Gay & Airasian, 2000, p. 276). To minimize such imposition of my views on participants, I therefore used a mixed methods design to reduce the effects of my own personal bias and understanding of the issue under investigation. My goal was to embrace the strengths of both qualitative and quantitative method while reducing the methodological limitations of each. Further, the questionnaires were extensively adapted and modified from a previous study conducted by Save the Children (US) as part of the Improving Education Quality Project (IEQ) implemented in Malawi in 1996. The

rationale for using these tools was that even though the contexts were different, both projects had similar objectives with comparable parameters for assessing schools and teachers' instructional practices. The adapted versions were pilot tested in the field and re-modified to suit the context in Sierra Leone. The following questionnaires were administered:

Table 5: Distribution of Questionnaires

Questionnaire Type	Number Administered	Percentage Returned (%)
School Profiles	6	100
Head Teachers	6	100
Teachers	7	100
Core Textbook survey	7	85

The high rate of return was made possible because most of the questionnaires were personally administered by me while a few were self administered. Since time was exigent, I requested completion of each questionnaire on the spot. I suspect this was possible because of the trustworthy relationship I had developed with the heads of the schools and perhaps the result of an introductory letter from the Director of the Inspectorate to the heads of schools about my study. In addition to these questionnaires, I obtained spreadsheets of examination data for each school from 2002 to 2008. The spreadsheets had variables such as gender, school choice, and raw scores in five subject areas in the standardized normative test conducted by the West African Examinations Council. The data was organized by year and by school and utilized to establish trends in performance per subject per year. This data was used as the dependent variable in the study.

### **Data Management, Analysis, and Interpretation**

According to Marshall and Rossman (1999), "data analysis is the process of bringing order, structure, and interpretation to the mass of collected data (p. 150). In order to accomplish such order in data analysis I first had to differentiate between the qualitative and quantitative data and determine how concurrently to carry out the analysis. One major goal of

my study was to ensure engagement and utilization of the findings by stakeholders. As a step towards such a goal, data management was critical in order to maintain both its trustworthiness and integrity. During the course of interviews and the focus group discussion with participants, I took extra field notes with which I cross-checked all transcriptions to ascertain accuracy. Interviews and FGD were also digitally recorded while observed classroom sessions were video-recorded. The responses were tallied and collated in an excel spreadsheet. These data, along with the NPSE results for each school were organized for each case using tabulations and graphs for analysis. At the completion of my report, these documents and data will be kept for five years after which they will be carefully destroyed to ensure the privacy of participants and confidentiality.

With regards to analysis, the data was categorized by case with a focus on variables that helped to explain the findings in relation to the study objectives. Since the study was evaluative and exploratory, the program logic proved especially useful in assessing the intended outcomes at each school level with the exception of the control. For effective analysis, three distinct but inter-related steps was taken. The first phase focused on the project's outcome indicators, which was described as the Basic Operational Level (BOL) criteria, a reflection of the fundamental quality level (FQL). Achievement of the FQL was determined in each of the five targeted schools and attempts made to explain why the outcome was not achieved. Background information obtained through secondary sources and data from the interviews and FGDs was I be used in this phase of the analysis.

The second phase focused on the NPSE scores obtained for each school over the project cycle (2003-2008) where available. This phase involved data analysis to determine any trends and/or emerging patterns in school performance. The objective was not to establish causality, but rather to discern any changes in the school's performance during the period of

implementation. Also, an attempt was made to provide insights into what factors may have contributed to the changes if any at the school level using qualitative data. Although, the NPSE is a standardized normative examination, the grades are based on raw scores of each candidate. Candidates who take the NPSE are graded on a score of 100 in each of five subjects with a maximum of 500-Mathematics, English, General Science, Verbal Aptitude and Quantitative Aptitude. The test consists of multiple choice questions, a narrative test in English composition and letter writing, and continuous assessment scores compiled by each school. A pass in the NPSE is determined by the Ministry of Education based on a stipulated aggregate pass mark for each year, for example, 230.

The third phase was a cross-case analysis which involved synthesizing the findings from each case for comprehensive interpretation of the findings. As much as possible, I sought to triangulate findings at this stage using both sources of data collection methods to ensure meaningful interpretation and understanding of the phenomena being investigated. The mixed-methods strategy, as noted earlier, allowed for integration of the results during analysis and interpretation focusing on points of convergence of the findings or explanation of the lack of such convergence across the cases. Narration of the data constituted the core of the analytical process. The narratives were supported by data, excerpts from interviews and some quotations from the qualitative research and statistical data obtained through document analysis or questionnaires. Through this process, I was able to answer my research questions.

Finally, through out the analytic process, I kept in mind one key principle in the interpretation of the data; the realization that interpretation and meaning making was by and large a complex and reflexive process requiring experience, integrity, and insightfulness (Denzin, 1994). I kept going back and forth as I tried to understand and make meaning of the enormous data and information at my disposal. I also realized that knowledge creation functions

iteratively-exploration, explanation, and validation- hence evaluators should perceive the process as a knowledge generating process with room for flexibility and change (Drungelen (2001).

### **Role of the Researcher**

It is almost seven years that I opted to pursue graduate studies in education after committing ten years of development work in various agencies with competing agendas. Throughout these years (1993-2003), the quest to understand and perhaps, provide answers to issues and problems confronting societies such as mine (Sierra Leone) ultimately set the agenda for research and inquiry. By research I mean, initially in a loose sense, the “process of looking for a specific answer to a specific question in an organized, objective, and reliable way (Payton, 1979, p. 4). With time, I came to realize that research does not always proffer answers to specific questions; it may pose new questions and offer alternate perspectives on how the world around us works. Often, research enterprises may seek to probe, problematize, or create new pathways to knowledge. In this mode, researchers are not insulated from the daily realities of life or cocooned in a scientific laboratory with all shutters down. If this is true, then our life experiences essentially drive the research agenda and help us frame the research questions, the design, sampling framework, methodology, mode of analysis, and interpretation of the results. However, research today is far more complex than Payton’s (1979) characterization of the process. Waltz and Bausell (1981) note that “research is a systematic, formal rigorous and precise process employed to gain solutions to problems and/or to discover and interpret new facts and relationships” (p.1). The notion of systematization, rigor, and discovery brings to the fore the multi-layered role and expectations of the modern researcher, and in this case the evaluator-contributing knowledge for utilization by, and transformation of society while

maintaining trustworthiness and integrity of the process. Further, it requires researchers to maintain a neutral voice despite personal attachment to the issue or phenomena being probed.

Nevertheless, as a Sierra Leonean, an insider and outsider, how do I effectively combine the “emic” and the “etic” voice (Rossman & Rallis, 2003, p. 48) without compromising the integrity of the research process? Caught between the need to bring my life experiences into this evaluative, though exploratory process, and the need to be systematic, precise, and rigorous in order to discover and interpret data, I chose to investigate the issue of educational quality in my own backyard. I was convinced this choice of topic demanded a new sense of purpose, commitment and ownership knowing fully well the challenges that lay ahead. Prior to graduate school, I had worked as a project officer with UNICEF charged specifically with the responsibility to oversee UNICEF’s recovery strategy in education following ten years of war. The work involved rehabilitation of school structures, teacher training, capacity building of the Ministry of Education and partner organizations, and coordinating sectoral support in the education sector. In this capacity, I was also the focal point for an inter-agency sub-committee on education that brought together UN agencies and international NOGs to network and share resources and information on strategies and activities in the education sector. In my role as the focal point, I represented UNICEF at the initial preparatory meetings with World Bank consultants who had been assigned to develop and design the REBEP project in Sierra Leone in 2002.

Moreover, as part of UNICEF’s commitment to improving basic education in the country, the education team developed a pilot teacher development initiative (TDI) in 2002 which trained lecturers, head teachers, and teachers from 14 schools in the use of child-centered methodologies as a participatory learning strategy. As an action research project, I made several monitoring visits to schools to assess teachers’ instructional practices after the training and

offered advice where appropriate. Although trained in the new methodology, the team recognized that there were clear resource limitations in schools, leadership gaps, and above all low teacher morale. UNICEF addressed the leadership and resource issues with training and the provision of books, stationery, equipment, and teaching and learning materials for the six month duration of the pilot project. However, UNICEF could not address the teacher motivation problem. The outcomes of the pilot project were so positive and impressive that the TDI strategy (action research) was proposed by the team of World Bank experts as a model to be used in the REBEP project to train unqualified and untrained teachers. When UNICEF withdrew support for the pilot project in early 2003, and government fell behind in the payment of teachers' salaries, the project fell apart. Thus having been so directly involved with the REBEP project could make me somewhat insensitive to the negative aspects and highlighting only the achievements. It was also possible that I might develop hawkish eyes with the motive to negate donor claims that the effective schools strategy for delivering quality education in developing countries works. I realized I had to walk a thin line both as an insider and an outsider by being aware of my personal biases and ensuring that achievements of the project are celebrated while acknowledging problems and challenges in the discourse.

From the above, my disposition towards the REBEP program was apparent and could potentially pose serious ethical problems in analysis and interpretation of the data. As a Sierra Leone, I knew I had a stake in ensuring the highest educational standards for the next generation. However, it is a commitment that I believe should not blind me to the principles of good research practice. Thus based on these beliefs, it is possible that my research design and methodological choices for collecting and interpreting data in this study may have been unduly influenced by my own subjectivities. These subjectivities could in part be a result of my unique life experiences and the way that I perceive truth and how knowledge is constructed. Peshkin

(1988), nevertheless, notes, “subjectivity can be seen as virtuous, for it is the basis of researchers’ making a distinctive contribution, one that results from the unique configuration of their personal qualities joined to the data they have collected” (p. 18). I hope that by acknowledging my subjectivities with humility in this study, I have succeeded to be both reflexive and virtuous.

### **Ethical Considerations**

Ethical issues are a critical aspect of competent research practice. From the initial conceptualization stage, I was concerned with the issue of trustworthiness of my study as a caveat for ensuring credibility and acceptance of the findings. Rossman and Rallis (2003) characterize trustworthiness as the set of standards to which qualitative research conforms; firstly, for “acceptable and competent practice” and secondly, for “ethical conduct with sensitivity to the politics of the topic and setting” (p. 63). These two standards are closely related, and it is by conforming to both that a study gains its integrity. This view transcends the traditional notions of reliability and validity to include ethical issues in research.

The first ethical considerations were participant’s rights and welfare, issues of privacy and confidentiality, and keeping promises within the ambit of reciprocity. While every effort was made to make participants’ aware of their rights and assured confidentiality through administration of consent forms in some instances, some participants were not comfortable to sign the forms. They preferred verbal consent to written ones. I suspect this had to do with the specific context of Sierra Leone-a high power distance society- where the elements of politics and power override professionalism even in research. In terms of reciprocity, some of the target schools were in dire need of learning materials and I felt very uncomfortable for remaining non-committal about the promises I made to help in future. I hope I can help.

Further, during the formative years of REBEP, I was involved with the planning and development of the project while serving as the UNICEF focal point and representative at the inter-agency subcommittee on education. Since 2002, I closely followed implementation of the project and had been in close contact with project officials, sub-contractors, and some colleagues involved with implementation. I suspect this initial involvement and familiarity with stake holders allowed me unfettered access to participants and project resources. I was not comfortable with the ease at which I gained access to data and information. However, I later recognized that this proved equally challenging in managing my subjectivity in the evaluation exercise. It was difficult walking the thin line between an insider and an outsider; managing my impartiality by maintaining standards for acceptable practice and taking ethical positions in the course of the study. Moreover, this study was conducted at a time a commission of inquiry had been set up by the government to investigate alleged mismanagement of project funds. I became concerned that project officials, implementing agencies, and sub-contractors could see the evaluation process as a covert exercise to uncover alleged incidences of malpractice. The challenge was how do I portend to be 'neutral' such that I could have objective and honest opinions of stakeholders in the implementation of the project? Also, should I consider myself and outsider or an insider and could this affect my objectivity in the research endeavor?

Furthermore, Sierra Leone is a typical high power distance society. As a student researcher, I wondered whether participants would take me seriously compared to if I were an external evaluator in a blue blazer. Finally, the choice to observe teachers during lessons without prior notice contrary to competent and acceptable research practice was worrying. I considered the pros and cons of the strategy and came to the conclusion that it was essential to minimize the Hawthorn effect. Indeed, my findings justified the means; hence meaningful data

was collected that may contradict the findings of an earlier evaluation study of the impact of the teacher training component of REBEP.

### **Limitations of the Study**

The most obvious was the limited scope and depth of the study with respect to the sample size. As noted already, the number of targeted schools had been significantly expanded to 1,495 schools in total with primary schools estimated at 1,383. The attempt therefore to focus on five beneficiary schools posed serious methodological challenges in terms of representativeness of the sample size. To overcome this challenge, I chose a case study approach such that the findings can only be applied to the specific settings. Moreover, I barely had six weeks to collect data which by all account was limited and proved very tedious. Given that the project had been implemented from 2003-2008, it may be presumptuous to assume that six weeks of intensive research would capture every element and nuance of the implementation process and the outcomes achieved. Thus the question arises whether such a time span was sufficient enough to make a “judgment of merit, worth, value, or significance” (Rallis & Bolland, 2005, p. 7) about a program that was ongoing? Furthermore, while the study sought to determine the achievement of project outcomes and attempts to relate these outcomes to learning achievement, I was constrained methodologically to establish any causality. Literature on learning achievement cites several factors that contribute to learning achievement-home environment, parents socio-economic status, student motivation, resources, teacher related factors, etc. Most of these factors are unrelated to the kinds of inputs REBEP provided to ensure attainment of fundamental quality level. Also, chances are that any established correlation might not be conclusively attributable to any single factor or set of factors being investigated. As I reached my conclusions, I was keenly aware of these limitations and never once thought about generalizing the findings in each case. However, I was convinced

that the insights gained from the findings were generalizable both at the national and sub-continental levels. The findings could also potentially provide insights into the merit and worth of the FQL strategy as well as open the way for further research.

### **Chapter Summary**

The foregoing is a detailed narrative of the research approach used for this study and the rationale for choosing a case study approach. The chapter also outlines the methodology and the theoretical underpinnings for selecting mixed-methods for data collection and analysis. As with every competent research practice, I clarified my role as the researcher or evaluator and discussed the ethical issues I had to contend with. Finally, I acknowledged the limitations of the study noting in particular the small sample size and the limited time I had at my disposal. In the next chapter, I present the data collected both from primary and secondary sources in a case by case basis.

## CHAPTER 5

### DATA PRESENTATION-BROAD OVERVIEW

In this chapter, data collected through quantitative and qualitative methods is presented as a first step. This data highlights general findings on REBEP focusing on project aims and objectives, implementation strategy, project management, monitoring and evaluation, and outcomes as at April 2009. In chapter six, a detailed presentation of each case study commencing with the profile of each school specific inputs by the SABABU. Chapter Five also examines the performance of each school in the NPSE over the project cycle and an attempt is made to highlight performance trends. The chapter ends with preliminary school level analysis of the findings in each case study. Chapter Six concludes with analysis of first the broad project findings followed by a comprehensive cross-case analysis of the data on the six schools.

#### **Status of Education before REBEP Intervention**

Data on the status of education especially in primary and secondary schools was limited. The only data available during the development of REBEP was based on the National School Survey Report (NSSR) carried out in 2001 and the Multi-Indicator Cluster Survey (MICS) 2000. In 2001, the NSSR identified 3,152 schools nation wide, and that 200-300 of these were satellite schools (World Bank, 2003). Also, the total number of school buildings was 4,854; 35% of classrooms needed to be reconstructed while 52% needed to be either repaired or rehabilitated. According to the REBEP project appraisal document, the extent of the damage and deterioration of school facilities was extensive and estimated to exceed the resources that were at the disposal of the government and the donors in 2002. In terms of quality, only 70% of children who enroll complete the primary cycle while the repetition rate was 13% for primary schools and 24% for Grade 1 (World Bank, 2003). Finally, enrolment in primary school was reported at 1,026,248 in 2003 of which 51% were boys and 49% girls taught by 19,328 teachers (9, 243

qualified and 10, 259 unqualified) according to Ministry of Education, Science and Technology (2004).

### **REBEP Aims and Objectives**

The REBEP project was initiated in 2002 as collaboration between the Government of Sierra Leone (GoSL), the World Bank's International Development Agency (IDA), and the African Development Bank's African Development Fund (ADF). The purpose of the project was to assist the Government of Sierra Leone to re-establish education services, and prepare the grounds for building up the education sector after a protracted civil war that lasted for almost eleven years. Specifically, the objectives of the project were:

- (i) To assist participating schools to achieve a basic operational level (BOL);
- (ii) To develop a partnership between the Ministry of Education, Science and Technology (MEST), civil society and the international community to rebuild the school system; and
- (iii) To build up the capacity of the Ministry of Education, Science and Technology (MEST) to plan and manage the delivery of education services.

REBEP was jointly developed by the IDA, the African Development Bank (AfDB), and UK Department for International Development (DFID), and was co-financed by the IDA, AfDB and the GoSL. DFID's contribution was exclusively for governance related issues, and was carried out in collaboration with the current Public Sector Reform Project in Sierra Leone with a focus on decentralization. The project, which later came to be known as the SABABU project, came into effect in September 2003 with a five-year timeline (2003-2007). The national scope and character of the project required vast amounts of funding to cover its operational and administrative costs which were projected at \$42 million. These funds were jointly provided by the government of Sierra Leone (US\$ 2 million), the World Bank's International Development Agency (IDA) (US\$ 20 million), and the African Development Bank (AfDB) (US\$ 20 million). The

huge funding, 48% each, provided by the IDA and AfDB ensured that the two main donors had monopoly of the decision making processes with regards to project strategy and implementation. Following an assessment by the United Nations Humanitarian Coordination Office (UNHCO) in 2001, each district was categorized based on the level of destruction and damage to education infrastructure during the civil conflict. Based on the assessment report, a Damage Index was developed for each district which the REBEP Project Coordinating Unit used as criteria for allocating funds to target districts focusing on basic education services. REBEP had four main components: a) Reconstruction/rehabilitation/construction of school infrastructure; b) Supply of core textbooks and learning materials; c) Teacher training and development; and d) Capacity building of the Ministry of Education.

### **REBEP Strategy**

The REBEP/SABABU project was designed to ensure maximum outreach and transparency. Accordingly, a cornerstone of the implementation strategy was the need to develop and nurture partnership with major stakeholders and service providers in the education sector. Given the levels of destruction of education infrastructure during the war and the long history of mismanagement and corruption in the sector, a well-coordinated partnership was required if the project objectives are to be achieved. The partnership involved community based organizations, NGOs (national and international), district education offices, and school management committees or parent teacher associations. Additionally, rehabilitation of the school system was considered the core given the extent of structural damage across the country. The rehabilitation of the school system was designed to build upon the existing provision of services, mainly by private sector providers (missions and NGOS). Moreover, participatory planning was utilized to expand outreach to underserved areas.

In order to monitor the evolution of the school system, Fundamental Quality Level (FQL) criteria were recommended with specific outcome indicators. Conceptually, the FQL was a set of agreed criteria that can evolve over time as minimal standards are met for the majority of schools. The FQL was limited to include readily measured inputs to achieve a basic operational level (BOL). This level is defined as schools where a physical structure safe for children is available; supplies of basic furniture, main textbooks and teaching and learning materials were available; one teacher per 40 students is the pupil teacher/ratio; and a school management committee is present and functional. According to the project appraisal document (World Bank, 2003), the BOL standards were used to monitor the quality of education delivered by service providers. It notes that “in the present emergency context, focusing on providing BOL ensures that affordable solutions for schooling are provided to a considerable number of children” (p. 12). The BOL was used to monitor progress on rehabilitating the school system and as the majority of the schools in the country meet all of the operational criteria, incremental targets and more process-related and outcome-related quality indicators would be introduced. The rationale for this strategy, according to the document, was that it would eventually provide a solid basis for the education system to evolve in the future. Furthermore, it was hoped the strategy would enable the country to make rapid progress towards the achievement of some of the more quantitative EFA goals-“universal completion of primary education by 2015 and elimination of the gender gap in primary and secondary education by 2005” (World Bank, 2003, p. 12). The BOL criteria proposed by the project were:

a. Infrastructure and furniture:

- The school has a roof that allows all classrooms to function during rain;
- Every student has a chair and a desk; and
- Teachers have furniture.

b. Students and learning materials:

- There are between 30 and 45 students per classroom and per teacher;
- At least 45% of enrolled students are girls;

- At least one complete set of English, Science, Social Science and Mathematics textbook is available for each student (distributed to the pupils); and
- Students have notebooks and writing tools.

c. School staff and teaching materials:

- At least 50% of primary school teachers are trained and have teachers guides;
- Schools with more than 150 students have a principal; and
- Every classroom is equipped with a basic set of teaching aids.

d. Participation:

- The school has an operational school management committee (SMC).

Other strategic issues that were taken into consideration included the need to build upon the existing capacity of service providers, mainly missions, in support of the private sector in order to foster and expand the current provision of services. It was also proposed that the project would continue the ongoing support to non-formal and emergency education programs such as the CREPS initiative. Moreover, REBEP was designed to assist the MEST in building up its capacity to plan, manage, and monitor the provision of services. Other elements in the strategy were related to curriculum content such as inclusion of school-based peace-education and peace-building initiatives, and HIV and AIDS prevention and Life Skills program. Based on the BOL criteria, targeted schools were supposedly identified from the fourteen districts through a consultative process involving communities, schools, missions, district education offices, and NGOs or CBOs. The allocation of funds to district was based on a Damage Index and the population of the district (Table 6).

Table 6: Distribution of REBEP Funds by District

District	Damage Index	% Total Population	Damage X Population	National Allocation (US D)	Funding Agency
Urban Freetown	1	19.3	19.3	1,882,002	ADF
Bonthe	1	2.6	2.6	253,534	ADF
Western Rural	1	4.7	4.7	515,718	IDA
Bo	1	6.9	6.9	672,840	ADF
Kenema	3	9	27	2,962,633	IDA
Moyamba	3	7.2	21.6	2,396,683	ADF
Tonkolili	4	5.9	23.6	2,589,561	IDA
Pujehun	4	2.7	10.8	1,185,053	IDA
Bombali	4	9.4	37.6	3,666,490	ADF
Kambia	5	4.6	23	2,523,725	IDA
Port Loko	5	7.4	37	3,957,641	ADF
Kono	5	9.5	47.5	5,098,746	ADF
Koinadugu	7	4.3	30.1	3,302,788	ADF
Kailahun	7	6.5	45.5	4,992,586	IDA
<b>Total</b>		<b>100</b>	<b>337.2</b>	<b>36,000,000</b>	

Source: SABABU PROJECT, PCU, Ministry of Education, 2005; ADF: African Development Fund IDA: International Development Agency (World Bank).

The objectives of REBEP and the strategies proposed were developed into a logical framework to guide implementation; monitoring and evaluation (see Table 6).

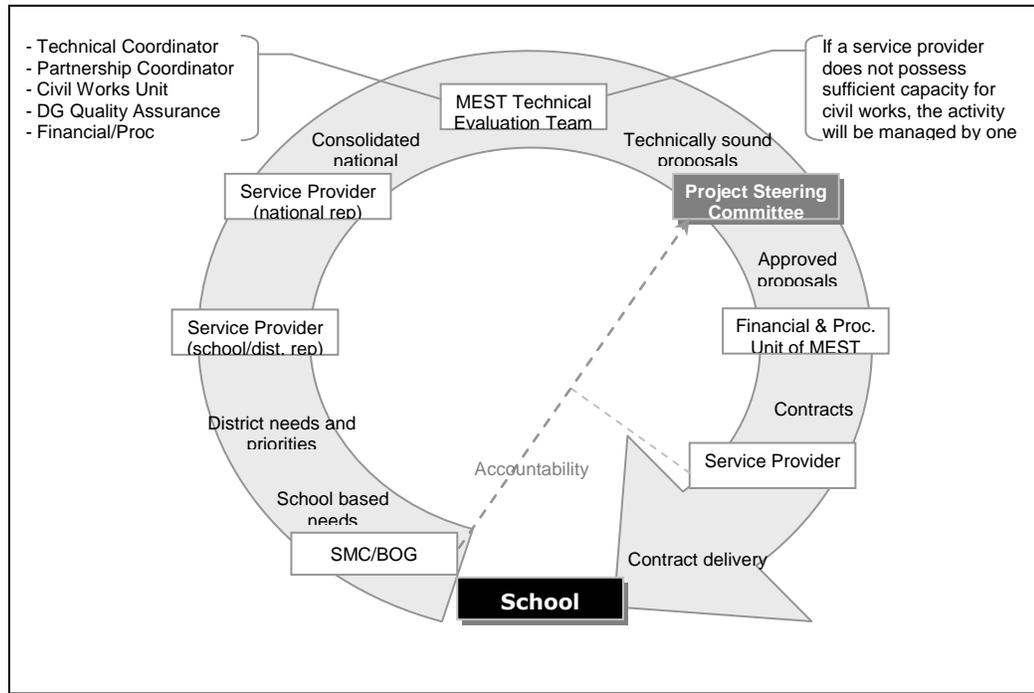
Program Activity	Intended Outcomes	Inputs	Means of Verification	Analysis Criteria
School buildings will be rehabilitated/reconstructed to attain basic operational level hence FQL	1. What evidence do we have that 600 school buildings were built or rehabilitated?	Partners rehabilitated schools to basic operational level with a 40:1 pupil/teacher ratio	How many schools were rehabilitated/reconstructed, and by whom and where?	<ul style="list-style-type: none"> <li>Were schools rehabilitated /reconstructed?</li> <li>Did such schools attain fundamental quality level</li> </ul>
Teacher's housing units will be constructed in deprived areas	2. What evidence do we have that 138 teachers' housing units were constructed?	Service providers constructed teachers houses in deprived areas	How many teachers' houses were constructed, and in what areas?	<ul style="list-style-type: none"> <li>Were teachers' houses constructed as planned?</li> <li>Did deprived areas benefit from this construction?</li> </ul>
In-service teacher training will be provided	3. What evidence do we have that 4000 UUTs were trained and obtained IST?	MEST planned and trained untrained and unqualified teachers for IST	Training reports of UUTs. Did instructional skills of untrained teachers improved after training?	<ul style="list-style-type: none"> <li>Did in-service training of 4,000 UU teachers take place?</li> <li>Did training impact teachers' classroom practices</li> </ul>
Textbooks, teaching and learning materials will be provided at basic education level	4. What evidence do we have those textbooks, teaching/learning materials were supplied?	MEST supplied textbooks and learning materials	Number of textbooks supplied; number of children who have access to textbooks.	<ul style="list-style-type: none"> <li>Were identified schools supplied textbooks and learning materials?</li> <li>Were children using these books and learning materials</li> </ul>
Short term literacy skills and income generating training will be provided to instructors at CECs and Tech –Vocs	5. What evidence do we have that instructors at CECs received training in literacy skills?	CEC Instructors received training in literacy skills and income generation	Numbers of CEC instructors trained; number using skill in income generation	<ul style="list-style-type: none"> <li>Improved literacy skills of instructors</li> <li>Number of instructors engaged in income generation</li> </ul>
Institutional capacity of MEST will be strengthened	6. What evidence do we have that a strategic and training plan was developed?	Comprehensive strategic plan developed and SMCs functional	Strategic plan developed; training of MEST staff; SMCs established and operational in schools	<ul style="list-style-type: none"> <li>Strategic plan exists and being implemented</li> <li>SMCs actively involved in school management</li> <li>MEST staff capacity improved in management</li> </ul>

Source: REBEP Project Manual, 2003

## **Implementation, Coordination and Management**

The REBEP project has two levels of management; the Project Steering Committee (PSC) and the Project Coordinating Unit (PCU) with both structures within the Ministry of Education. The PSC constitutes the executive board with responsibility to oversee the general performance of the PCU and ensuring that they adhere to the terms of reference of the project. The PSC is a partnership between the public and non-public sectors (60% government, 40% non-government membership)-the MEST, representatives of key international donors, stakeholders, NGOs, missions and the private sector. The Minister of Education chairs the PSC, with the vice-chairpersonship position rotating every year. The committee consists of twelve (12) members and receives secretarial support from the Project Coordinating Unit (PCU). The PCU, on the other hand, is responsible for the day to day running of the project which includes coordination and management of the project. The PCU comprises of a core team that includes a project director, a technical coordinator and a partnership program coordinator to provide program leadership in project planning, implementation coordination, M&E and partnership program implementation under the supervision of the PSC. Other specialists include an educational planner/EMIS specialist and a civil/ architect engineer to monitor rehabilitation and construction activities. Prior to implementation of the project, a management system was developed to ensure effectiveness and efficiency in the implementation of the partnership framework. This included a coordination system, including communication systems and consultation and participation systems at all levels; project appraisal and approval system, including a feedback; financial management system, including a management accounting system; procurement system and a monitoring and evaluation system, including accountability systems; education management information system (EMIS); and a capacity building system (sensitization and training) for MEST, stakeholders and service providers, and relevant structures (SMCs).

The process involved in the appraisal and approval of proposals for funding was elaborate and complex involving several stages (Figure 2) as detailed below.



Source: REBEP Partnership Manual, 2003

Figure 2: Project Appraisal Process

The amount of funds allocated to each school was determined by the type of grant approved by the PSC. These grants fall into two broad categories - Full/Complete grants and Partial grants.

A Full/Complete Grant package included:

- Construction, renovation, or repair of schools or vocational skills training facilities;
- Provision of classroom furniture;
- Training for School Management Committees (SMCs) or Parent Teachers Associations (PTA);
- Supply of 4 core textbooks at a ratio of one set per child;
- Teacher training including training in peace education and HIV/AIDS prevention education; and
- Provision of skills training and toolkits for junior secondary schools.

Partial Grants on the other hand included:

- Supply of Textbooks;
- Teacher training including training in peace education and HIV/AIDS prevention education.

The review of proposals was a critical aspect of the appraisal process. Proposals were reviewed by the PSC on a quarterly basis to ensure compliance with basic eligibility criteria. According to the REBEP Partnership Manual (2003), if a service provider (SP) submits a strong proposal but is determined by the Technical Team of the PCU to be lacking in capacity (financial, procurement management, etc.), the Technical Team may refer the SP to an approved NGO or agency to establish a partnership for the proposal. Eligible proposals are presented through the PCU to the PSC by the Technical Team for decision. The PSC meets at least four times per year to review new proposals/applications, and implementation progress of ongoing activities. All proposals over US\$200,000 were subject to IDA no-objection regulations. All approved proposals culminated into a contract agreement between the SP and the PCU. The contract was drawn for the delivery of outputs determined by the technical team at the end of implementation. The PCU and the Financial/Procurement Unit of the MEST managed the logistics of the contract. All qualified SPs were required to undertake the implementation of the contract and were held accountable by MEST through the PSC.

#### Monitoring and Evaluation

The thrust of monitoring and evaluation activities was guided by the REBEP program logic framework earlier discussed. Much of the monitoring exercise was carried out internally through established coordination mechanisms. As part of its coordination mechanism, SPs submitted monthly progress report(s) to the PCU on a prescribed format. This reporting format included progress in physical implementation as well as detailed information on financial and procurement

activities. Additionally, the annual school facilities survey carried out by the Planning and EMIS division provided the additional feedback to the PSC and MEST on the development of the basic education sector. The PCU and the Planning Directorate prepare quarterly consolidated progress reports on SP initiatives for the attention of the PSC. Further, a broad agenda for proposed monitoring and evaluation framework was developed with key performance criteria categorized by type of support-Full grants or Partial grants-as outlined in the implementation manual. The performance targets were later revised downwards because of inflationary factors and the slow pace at which funds were being provided by donors leading to escalating costs beyond initial budget estimates. Moreover, a Mid-Term review was carried out in 2005 involving all major stakeholders while the National Accountability Group (NAG) in partnership with Transparency International Global Network, the Tiri Network of London, and the Anti-Corruption Commission in Sierra Leone conducted an independent evaluation of REBEP in 2007. This study was part of a series of eight studies of post-war reconstruction countries commissioned by Tiri and funded by the Norwegian Ministry for Foreign Affairs, the Open Society Institute, and the Canadian International Development Agency. Also anecdotal evidence gathered through an independent research carried out by the Campaign for Good Governance (CGG) on Basic Education in Sierra Leone provided considerable insight into the implementation activities of SABABU at the school level in a number of districts. Finally, in November 2008, UNICEF (the agency responsible for coordinating the training of teachers for REBEP) commissioned an external evaluation of the teacher training component of REBEP to assess progress towards project objectives. Some of the major objectives of the study were to determine the extent to which the UU teacher training had enhanced the skills, knowledge, and competencies of the participants since completion of the training, and assessing the quality of teaching and learning in terms of levels of change in pedagogy and the performance of the pupils taught by teachers trained by the project. The

findings of these studies provided considerable data for analysis of the overall progress and achievements of the SABABU project objectives and outcomes. In the next section, I present these general findings from the data collected.

### **General Findings on REBEP**

The findings were collated from multiple sources including the World Bank's Annual Status of Projects in Execution (SOPE) reports from 2003-2008; SABABU Education Project Status Reports; Mid-Term Review report (2005); the Campaign for Good Governance (CGG) report on Basic Education in Sierra Leone (2006); UNICEF teacher training assessment report (2008); project proposals for funding; training reports by consultants; and various Media reports. Primary data was collected through observations, interviews, FGDs, and questionnaires. The findings focus on four main components: a) Reconstruction/rehabilitation/construction of school infrastructure; b) Supply of core textbooks and learning materials; c) Teacher training and development; and d) Capacity building of the Ministry of Education.

### **Status of Implementation**

According to the December 2007 status report of REBEP, the initial expectations and project targets were to:

- Provide Full Grants to 500 primary and 100 junior secondary schools;
- Provide Partial Grants to 650 primary schools and 95 junior secondary schools each year for the duration of the project;
- Rehabilitate/reconstruct 40 vocational training centers;
- Distribute 1 million sets of four core primary school textbooks and 100,000 sets of core junior secondary school textbooks to target schools;
- Provide tool kits for vocational skills trainees;
- Train 10,000 Untrained and Unqualified (UU) teachers;

- Train School Management Committee members of the schools that received Full grant support;
- Construct 138 Housing units for teachers in remote areas; and
- Strengthen the capacity and output of the ministry of education.

During the course of implementation, the PSC realized that the quantitative targets needed to be revised downwards in order to reflect increases in prices that had occurred since inception of the project in 2003. As part of the Mid-term review, the new targets were:

- Provide Full grants to 289 primary schools and 100 junior secondary schools;
- Provide Partial grants to 944 primary and junior secondary schools;
- Rehabilitate/construct 14 vocational training centers;
- Train 6,007 untrained and unqualified teachers;
- Distribute 1 million sets of core primary textbooks and 100,000 sets of core junior secondary school textbooks; and
- Construct 12 housing units for teachers in remote areas.

Subsequent to these revisions, appropriate funds were then allocated to implementing agencies and contractors to deliver services and goods to targeted schools across the country. A detailed report on the present status of implementation is provided in Chapter Six. In the next section, I present an overview of the performance of schools in the NPSE during the period of implementation from 2003 to 2008 as reported by the West African Examinations Council (WAEC). The objective is not to establish any linkages between project inputs and school performance. Rather, to identify any trends in performance if any during the course of implementation of SABABU with a view to highlighting contributing factors.

### Overview of Performance by Schools in the NPSE: 2003-2008

The World Bank SOPE 2008 report notes that the number of pupils taking and “passing” the NPSE after grade six increased significantly since 2000. Moreover, the rehabilitation and construction of schools in target areas contributed significantly to expanding access and enrollment, particularly girls enrollment. A WAEC report titled-NPSE Statistics of Entries and Results (2008) shows there were 103,927 candidates, an increase of 5.4% over the 2007 entries of 98,623. The number of males taking the examinations also increased to 57,823 while females totaled 46,104. Increases in entries also occurred at regional levels during the period 2006 to 2008 (Table 8). The data shows increases in the number of entries for the NPSE across the country.

Table 8: NPSE Candidate Entry by Region

Region	2006	2007	2008
Western Region	26,427	27,771	28,826
Northern Region	27,858	33,719	36,346
Southern Region	15,845	16,950	17,312
Eastern Region	17,633	20,183	21,443
<b>TOTAL</b>	<b>87,763</b>	<b>98,623</b>	<b>103,927</b>

*Source: WAEC, 2008*

Further, the number of candidates passing the standardized test increased proportionately with the increase in the number of entries since 2000 even when the aggregate scores for a pass was increased systematically by the Ministry of Education from 200 in 2000 to 230 in 2008. However, summary reports of performances in the NPSE over an eight year period (2000-2007) indicate that the proportion of candidates who failed to score the aggregate pass mark more than quadrupled (Table 8). In 2000, an estimated 7.5% of the 20,189 candidates who sat to the NPSE failed to score the aggregate 200 pass mark from a total of 500. The proportion of failures increased to about 20.8% in 2003 out of a total of 46, 851 candidates with the aggregate pass mark pegged at 220. In 2005, the proportion of failures increased to 28.1% of 77,659 candidates who took the NPSE with the pass mark at 230.

This trend in the increasing proportion of failures in the NPSE which affects transition to junior secondary school continued into 2007. In 2006, the proportion increased to 29.2% of the recorded 87,763 candidates that sat to the NPSE with the aggregate pass at 230. Similarly, in 2007, the number of failures reportedly remained consistently high at 27.5% of the 96,268 candidates with the cut-off mark at 230 (Table 9). The proportion of failures for 2008 was about 30%, the highest recorded over the period 2000 to 2008. In real terms, an estimated 30,229 candidates failed the NPSE with males and females accounting for 53.4% and 46.6% respectively.

At the national level, males performed better than females in all years. However, more males failed because of the higher proportion of boys that took the examinations each year. The data also shows a progressive increase in entries since 2000 nationally and in all regions of the country. Further analysis of the data for each year reveals interesting insights into overall performance of schools in the country.

Table 9: National Performance Trend in NPSE: 2000-2008

Year	No. of Candidates Sat			No. of Passes			No. of Failures			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Perct. (%)
<b>2000</b>	11,950	8,239	20,189	11,101	7,580	18,681	849	659	1,508	7.47
200*										
<b>2001</b>	15,868	10,274	26,142	14,734	9,494	24,228	1,134	779	1,913	7.32
200										
<b>2002</b>	21,631	13,301	34,932	17,932	10,250	28,181	3,700	3,050	6,750	19.32
220										
<b>2003</b>	29,834	17,027	46,851	24,239	12,878	37,117	5,591	5,163	10,754	20.78
220										
<b>2004</b>	38,705	22,446	61,151	31,087	16,990	48,077	7,618	5,456	13,074	21.38
220										
<b>2005</b>	48,213	29,446	77,659	35,779	20,259	55,838	12,433	9,385	21,818	28.1
230										
<b>2006</b>	52,881	34,882	87,763	39,782	24,135	63,917	13,099	10,747	23,846	29.17
230										
<b>2007</b>	56,077	40,191	96,268	41,864	27,910	69,774	14,213	12,281	26,494	27.52
230										
<b>2008</b>	56,223	44,611	100,834	40,067	30,568	70,635	16,156	14,043	30,199	29.94
230										

Source: WAEC, 2000. \*Aggregate Pass Mark for each year as determined by the Ministry of Education

Country-wide, performance in the NPSE was skewed towards the lower score-sets while the differences in performance in terms of gender and score-set were insignificant. According to the data, an estimated 63% and 66% of male and female candidates respectively scored either below or within the score-set 230-279 in 2005 while no candidate scored above 379. In 2007, 70% and 71% of males and females respectively scored below 279. This trend continued into 2009 according to data just released in October 2009. It shows that performances were as usual skewed towards lower score-set with about 71% of males and 72% of females scoring either below or within 230-279. Only 28% and 0.5% of males scored between 280-329 and 330-379. Similarly, 27% and 0.8% of females scored within these two score-sets indicating that performances either declined over the years 2005-2009 or remained the same (Figure 3).

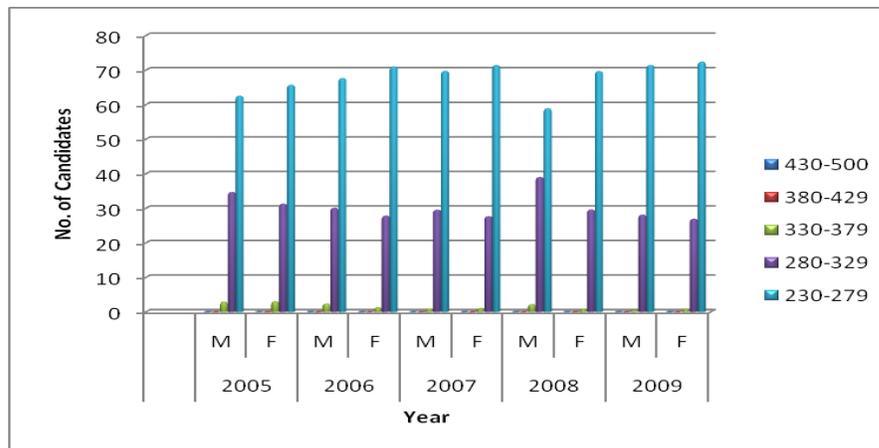


Figure 3: Overall Performance by Gender, Year and Score-set

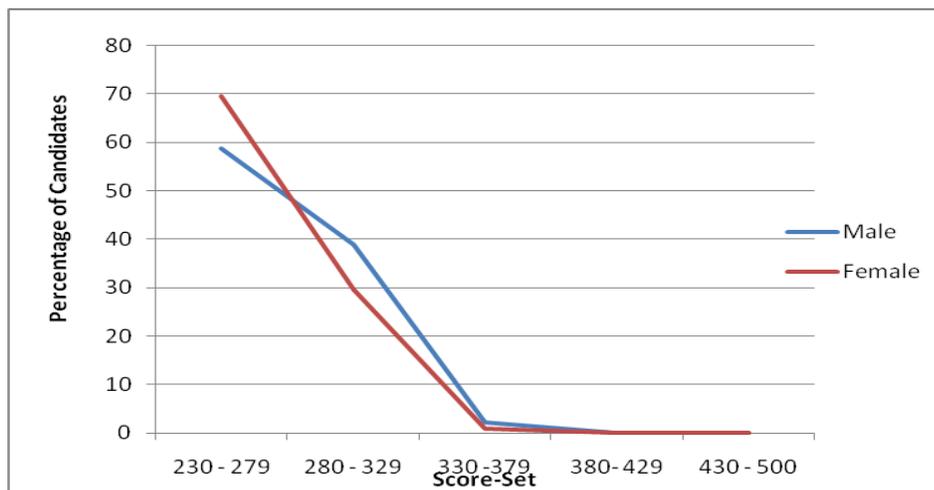
The data indicates that in 2008, performance in the NPSE was highly skewed towards the lowest aggregate range of 230-279 for all regions according to WAEC. This suggests that in general the performances “scaled down” (WAEC, 2008, p. 158) considerably towards the lower quintiles. Consequently, no scores were attained in the 4<sup>th</sup> and 5<sup>th</sup> ranges (380-429) and (430-500) respectively (Figure 3). Also, 64.5% of candidates who sat to the NPSE in 2008 scored between 230- 270. In gender terms, 59% of males and 70% of females scored within the same

score range. A similar pattern emerged in terms of regions and gender (Table 9). This trend is consistent with the previous three years.

**Table 10: Performance in NPSE by Region, Gender and Score-Set -2008**

REGION	SEX	230 - 279	280 - 329	330 -379	380- 429	430 - 500	Total
WESTERN	M	64.1	33.6	2.3	0.0	0.0	100
	F	66.8	30.8	2.4	0.0	0.0	100
NORTHERN	M	68.5	25.7	5.8	0.0	0.0	100
	F	74.7	25.2	0.2	0.0	0.0	100
EASTERN	M	64.2	35.6	0.3	0.0	0.0	100
	F	68.8	30.8	0.5	0.0	0.0	100
SOUTHERN	M	38.7	61.0	0.4	0.0	0.0	100
	F	68.3	31.5	0.2	0.0	0.0	100
NATIONAL	<b>M</b>	<b>58.84</b>	<b>38.97</b>	<b>2.18</b>	<b>0.0</b>	<b>0.0</b>	<b>100</b>
	<b>F</b>	<b>69.61</b>	<b>29.57</b>	<b>0.815</b>	<b>0.0</b>	<b>0.0</b>	<b>100</b>

Source: WAEC, 2008



Source: WAEC

**Figure 4: Performance in NPSE by Gender and Score Set in 2008**

The above data only superficially depicts the level of performance in the NPSE over the last nine years including the period of implementation of the REBEP project. Current data released by WAEC on the 2009 NPSE shows similar dismal performances in terms of the number of passes and the range of scores earned by candidates. Although it was difficult to obtain the

full report on the 2009 NPSE results, media reports from credible news outlets provide a fair insight into the overall results. According to the reports, only 74.4% of candidates that took the examinations passed with an aggregate of 230 and above (determined by the Ministry of Education). This percentage is equivalent to 74,970 pupils from a total of 102,208 candidates, a slight increase over the 2008 figure of 74.1%. The percentage of passes in 2008 slightly contrasts with data provided by WAEC in Table 10. This is indicative of the amount of political leverage and sensitivity of the Ministry of Education as regards the NPSE results and its desire to tow the line on official pronouncements about improving quality. However, educationists remain unconvinced that quality has improved over the last five or more years. One possible explanation for the difference could be that WAEC had to revise the results upwards for reasons that may likely be political considering the uproar over poor performance of JSS and SSS pupils in 2008. Nevertheless, the overall performance was still abysmal considering a failure rate of 25.6% in 2009 across the country, slightly down from 29.97% in 2008. Furthermore, school level data indicates abysmal performance over the years in the four core subjects taken in the NPSE especially in Mathematics, Science, and English as will be examined in chapter six.

In this chapter, I presented a broad overview of the REBEP focusing on the project's objectives, implementation strategy and general outcomes achieved so far. I also undertook preliminary analysis of the data on project outcomes and insights into school performance in the NPSE nationwide. Chapter six presents detailed analysis of data at the case level.

## CHAPTER 6

### DATA PRESENTATION: CASE STUDIES

This chapter is a detailed presentation of data and findings related to each of the six case studies; five schools that received support from REBEP and one that did not receive support. The case studies begin with a broad look at the general profile of the school before intervention by REBEP and after implementation (physical environment, staffing and teacher development, management, school/learning resources, teachers' instructional practices, and school's performance in the NPSE. Further, data is presented on the specific inputs and resources each school received as part of the overall support by REBEP. Finally, a preliminary analysis of the impact of the support provided by REBEP on each school's performance is examined. Finally, a detailed cross-case analysis of the findings is made with a view to highlighting any critical factor/characteristics that may have contributed initially to the achievement of the fundamental quality level criteria.

#### **Rural Education Committee Primary School (REC) - Waterloo**

The Rural Education Committee School is located in Waterloo, a nodal town about 22 kilometers on the main road artery from the regions to the capital city Freetown. The school was established at the request of the local community to provide educational opportunity for the children of fishermen and farmers in Waterloo and the surrounding villages. It was officially recognized by the government in 1974 and became part of the Western Rural District Inspectorate region ever since. As a Rural Education Committee, it is a de facto government school and administered by the ministry of education through the Western Rural District Education office. The literacy rate in the Western Rural District is 52% (62% males and 42% females) compared to a national average of 39% (49% males, 29% females) according to the 2004 census report (Statistics Sierra Leone, 2004). Further, the Primary Net Enrolment Rate

(NER) in the district was estimated at 71% and the Gross Enrolment Rate (GER) at 109%, figures that are well above the national primary NER of 64% and GER of 104%. The huge disparity between the NER and the GER is explained by the large number of over-aged children enrolled in the school system partly as a result of the ten year civil war which left many out of school. However, the percentage of the population aged 6-29 years who were attending school in the district at the time of the census in 2004 dropped significantly to 48.6% compared to 51% not attending or never attended school. In terms of economic activity, fishing is the main activity in Waterloo with the bulk of its 23,000 population including children and particularly girls engaged in fishing in one form or the other; trawling, smoking, and/or marketing. Unemployment rate in the Western Rural district was reported at 5.8% for both sexes in 2004 with an estimated 45% of households categorized as poor (PRSP-Sierra Leone, 2005).

#### a) School Demographics

REC school Waterloo has 545 pupils (248 boys and 297 girls) enrolled. According to the Head teacher, the school enrolment improved by an estimated 67% in 2006 following the construction of a new two classroom and office block with funds provided by REBEP. The school is serviced by 14 teachers, 64% of whom are certified-with at least a teaching certificate (TC). Further, 33.3% of the certified teachers hold a Higher Teachers Certificate (HTC primary) with the remaining 66.6% holding a Teachers' Certificate (TC). 6 teachers are unqualified, that is with high school diplomas only with no pre-service teacher training. Further, 57% of the teachers have at least fourteen years teaching experience at the primary school level whilst 43% have at least two years teaching experience. With this level of experience and certification, the school has relatively qualified cadre of teachers compared to the general staff profile across public schools in the country. The school has a pupil/teacher ratio of 39/1 which is well within the projected target of 40 pupils per 1 teacher. Whilst this school average may seem reasonable,

considerable disparities exist from class to class. In grade six, for example, a teacher was observed teaching a class of 79 pupils with most seating at least 4 per bench. The construction of the new two classroom block could be considered a mixed blessing to the school in the sense that the limited space and school resources have not matched the increase in school enrolment.

#### b) School Environment and Infrastructure

Prior to the commencement of the SABABU Education project in 2005, REC school had only 1 building which was in a state of disrepair with 4 classrooms, and a makeshift structure using plastic sheeting. Before REBEP, enrolment was estimated at slightly over 300. The school had only one toilet used by teachers and pupils, no water and sanitation facilities, no office space for head teacher and teachers, and above all no library or space for storage of textbooks (Table 11). Teacher's had no furniture and those provided for pupils were inadequate; about 4 pupils were assigned to a set of desk and bench.

Table 11: REC School Structure and Infrastructure

Item	Before Intervention	REBEP Intervention	Total 2006
No. of Buildings	1	1	2
No. of Classrooms	4	2	6
School Toilets	1	1 (3 Holes)	2
Water/Sanitation Facilities	0	1	1
State of Buildings	Poor	Satisfactory	Satisfactory
Teachers' Furniture-			
• One set/Teacher	None	None	0
Pupils/Furniture			
• No. of Desks	64	80	144
• No. of Chairs	60	76	136
Type of Civil Works			
• Reconstruction	0	0	0
• Construction	0	0	0
	0	1	1

As a result of the project, the number of classrooms increased to six. However, the quality of the construction was far unsatisfactory with cracks on walls, classroom floors, and the hallway which required maintenance. Although the new block had been officially handed over to the school, work on the water well had still not been completed by January 2009. Also, no

houses were constructed for teachers. Further, a total of 144 desks and 136 benches were supplied to the school; a figure that is far below the needs of the expanding school population. The problem of inadequate resources was even more acute in terms of teaching and learning materials.

c) Availability of Teaching and Learning Materials

Apart from the supply of core textbooks, the school did not benefit from the supply of other relevant learning materials such as teaching aids, schemes of work, lesson notes, school syllabus, exercise books (Table 12), and had only one copy of the harmonized syllabus.

**Table 12: REC School-Teaching and Learning Resources Supplied**

	<b>BEFORE</b>	<b>REBEP INPUTS</b>				
<b>Textbooks</b>	<b>2002-2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>TOTAL</b>	<b>In Stock</b>
English	0	409	300	34	743	609
Mathematics	0	352	410	37	799	700
Science	0	221	150	19	390	390
Social Studies	0	409	195	37	641	509
Subtotal	<b>0</b>	<b>1391</b>	<b>1055</b>	<b>127</b>	<b>2573</b>	<b>2118</b>
Pupils Notebooks	0	0	0	0	0	0
Pens/Pencils	Inadequate	0	0	0	0	0
Teaching Aids	0	0	0	0	0	0
Scheme of Work	0	0	0	0	0	0
Lesson notes	0	0	0	0	0	0
School Syllabus	1	0	0	0	0	0
Library Center	0	0	0	0	0	0

Basic teaching resources such as wall maps, and flip charts were not available. According to the head, the school was expected to purchase some of these items from the fee subsidy usually provided by government. However, subsidies have never been paid on time and delays may last up to at least six months into the new school year. Finally, during discussions with teachers, it was discovered that the core textbooks supplied by SABABU project were not consistent with the Harmonized National Syllabus that was revised in 2004 by the Ministry of Education. Consequently, teachers had no reference sources for preparing lesson notes on certain topics in Social Studies.

#### d) School Management and Leadership

REC school has a functioning School Management Committee (SMC) which was established following the SABABU project intervention in 2005. The serves as the executive board overseeing the school's budget and staff discipline. One member of the SMC benefitted from training as part of the overall project package. According to the head teacher, the SMC were meeting more frequently following the training but could not provide details about what key management decisions were taken since then. A Parent- Teacher Association (PTA) was also functioning and had long been part of the school's management structure. The PTA participates in the development of the school and welfare of pupils. The PTA is essentially a consultative forum for discussing the contribution of parents to problems such as maintenance of school facilities, school discipline as it relates to pupils and pupils' performance. Based on responses from the head teacher, the SMC and the PTA only restricted itself to taking decisions on staff discipline and providing oversight of the school budget. There were fewer inputs on curriculum matters such as addressing declining performance in the NPSE or hiring new staff.

The school also encouraged community participation in the affairs of the school. According to the head teacher, the larger community participated in the "improvement of quality" in the school since SABABU intervention through activities such as providing labor to build a fence around the school so as to improve on the physical environment; providing land for school gardening activities; and helping to build a school kitchen. Other ways in which the community was involved in the school were helping to resolve pupils' disciplinary issues, building classroom blocks, monitoring how well pupils are learning, assisting teachers in correcting pupil misbehavior, and participating in PTA meetings. It was also reported that the community was involved in monitoring teacher performance but specific details of how this was carried out were not provided. It is likely that performance here may mean the general conduct

of teachers in the community and their regularity in school rather than performance in the classroom.

In terms of school leadership, the head teacher assumed responsibility in 2006 and has 36 years teaching experience with a TC, a primary school teaching certificate. In the last 5 years, the head teacher attended only one in-service training workshop in 2006 which was organized by the Ministry of Education. The objective of the training was to improve the skills of heads of schools in management and record keeping in light of the establishment of SMCs in REBEP supported schools. In response to a questionnaire, the head teacher highlighted school administration/management, teaching, and staff supervision as key roles performed. Teaching was restricted to one grade per year. The emphasis on school administration and management roles is important for understanding why heads of schools no longer perceive themselves as teachers. In reality, both the head teacher and her deputy were not assigned to teach any class. The deputy reported that he sometimes helped with teaching Grade 6 Mathematics in the absence of the substantive teacher. In the last five years, the head teacher reported teaching only four unprepared lessons to kids in Grade 1 to 4. Similarly, in the last three months, the head only observed 4 teachers during lessons. The main administrative functions performed by the head teacher was paying teachers' salaries and preparing salary returns to the ministry; collecting data for the district education office; and disseminating policies to teachers. Thus management functions such as conducting in-service training and staff development were not a priority.

Since September 2008, the head teacher held three staff meetings with the main discussion items focusing on administrative procedures, curriculum content, teaching practices and methods, pupil's discipline, teacher discipline, school's relationship with parents and the community. Staff meetings are chaired by the head teacher who also sets the agenda for SMC,

PTA, and staff meetings. The deputy head teacher functions as an assistant in the absence of the head teacher. However, major decisions cannot be taken without reference to the head. In terms of staff recruitment and transfers, the head has limited authority. Recruitment is the sole responsibility of the district inspectorate office. The head of school can recommend transfers or disciplinary action against teachers but the district inspectorate office has the final say. However, the head felt she was hand tied to discipline teachers because the teachers were already less motivated to teach because of poor conditions of service. Three of the teachers were not on the pay role for the last two years.

#### e) Supervision and Staff Development

Supervision of teachers in the school was one key area of focus for the study. Two levels of supervision were identified; supervision by officials of the district education office (DEO) and by the head of the school. According to the head, the DEOs visit the school at least once a month to distribute teaching and learning materials (textbooks), collect data, attend SMC/PTA meetings, conduct verification of teachers, pay teachers' salaries and disseminate information. Occasionally, they would visit to give informal advice on different issues. However, supervisory visits have neither been intense nor focused on improving teacher's instructional practices. Quite often, the visits are used as opportunity to exploit teachers or beg for alms according to the head of school.

Internally, supervision of teachers had not been carried out systematically. The head teacher reportedly supervises the preparation of lesson forecasts, lesson notes, teacher attendance in terms of regularity and punctuality, discipline, and general performance. During my visit, I observed three lessons which were taught by three different teachers without lesson notes. Asked about how she dealt with teacher absenteeism, the head noted that she was aware teachers were commuting everyday to work, including herself and most cannot afford the

cost of transportation. In effect, she fully understood the plight of teachers especially those that were not on the pay role who receive meager incentives of fifty Leones (\$18) per month from the community/parents. In her opinion, this was seriously affecting the motivation of teachers and their performance. Asked whether lack of motivation and low morale was a problem in the school, the head teacher noted:

This is a big problem. That's why in fact you see teachers becoming traders in the school; that is, they come with articles and food items for sale to the children so that they could subsidize their meager salaries or pay transport to school. The teachers are faced with enormous challenges in the performance of their duties and it certainly has affected their classroom practices.

#### f) Instructional and Classroom Management Practices

In order to gain insight into the teaching and learning process in grade six, the terminal year at which pupils take the national examination in the school, a questionnaire was administered to one teacher and was observed teaching. I also observed three other teachers in the school. The questionnaire focused on the classroom environment, pedagogical support to the teacher, teaching practices, administrative issues, relationship with community, textbook availability and use, teacher quality, and conditions of service. In the observation instrument, eleven instructional elements were observed (see Appendix). Below is a summary of the findings.

#### 1) Classroom Environment

At the time of the visit, there were 79 pupils in class (37 boys and 42 girls) from a total enrolment of 90, indicating an overcrowded class environment. There were on average 4 pupils per bench and desk and they could be seen squeezing each other to fit within the limited space. There were no chairs or desks for the teacher even though the items were part of the SABABU project package. In terms of availability and adequacy of teachers' guides, core textbooks supply, and teaching/learning materials, the findings were as follows:

Table 13: Availability of Teachers' Guides, Textbooks, and Learning Materials at REC

Teachers Guide	Availability		Adequacy	
	Available	Unavailable	Adequate	Inadequate
Mathematics		✓		N/A
English		✓		N/A
Social studies	✓			✓
Science	✓			✓
<b>Core Textbooks</b>				
Mathematics	✓			✓
English	✓			✓
Social studies	✓			✓
Science	✓			✓
<b>Teaching/Learning Materials</b>				
Blackboard	✓		✓	
Chalk	✓			✓
Teaching Aids		✓		N/A
Ruler		✓		N/A
Pens	✓			✓
Pencils	✓			✓
Erasers	✓			✓
Reference Books		✓		N/A
Reading Books		✓		N/A

As indicated above, the availability of accompanying teachers' guides in Mathematics and English was a major constraint reported by teachers in the school. Whilst overall the supply of core textbooks was considered a major accomplishment of the project both by teachers and project officials, they were still inadequate in some classes as enrollment grew over the years after construction of the new block. In class six, for example, pupils did not have copies of a passage being used for reading and comprehension thereby forcing the teacher to spend almost twenty minutes of class time (50 minutes) copying the passage on the blackboard. Moreover, teaching and learning materials particularly teaching aids, relevant reference books for teachers and pupils, and reading books were unavailable. There were limited supplies of white chalk to teachers, while only a few teachers who could afford to improvise on their own used colored chalk during lessons. Teachers often asked pupils to bring pieces of chalk to school.

## II) Pedagogical Support

According to the respondent (grade six teacher), neither the head teacher nor officials from the district education office observed him teach in the last twelve months. In the past three years, the teacher attended only 3 in-service training sessions organized by the district education office and SABABU project focusing on class management and teaching methods respectively. The teacher reported that the head teacher reviews his lesson plans before teaching and would sometimes suggest ideas for improvement. However, the teacher could neither produce lesson notes nor a lesson plan for the lesson taught during my visit. Past lesson notes could not be produced either when requested to verify his claim. According to the teacher the last lesson notes were prepared in November 2008 in English and Social Studies.

## III) Instructional and Classroom Management Practices

The instructional practice of teachers was investigated focusing on pedagogy, pupil participation, assessment, use of teaching and learning aids, textbooks, and time on task. The teacher's responses were as follows:

**Table 14: Types and Frequency of Methods used in Instruction at REC School\***

	Never (0)	1-3 times/ term (1)	1-3 times/ month (2)	Once/ week (3)	2-3 times per week (4)	Daily (5)
Lecture to the whole class						✓
Pupils copy from b/board						✓
Pupils use textbooks				✓		
Question pupils' comprehension				✓		
Encourage pupil questions						✓
Role play					✓	
Pupils work in small groups/ leader						✓
Pupils work in pairs						✓
Singing	✓					
Review pupil homework					✓	
Pupils write assignments						✓
Administer exams or tests				✓		
Use teaching and learning aids you made yourself					✓	
Pupils use teaching/ learning aids				✓		

*\*Adapted From IEQ II (USAID) Survey, Malawi 1996*

Lectures and pupils copying notes from the blackboard were reported as the daily instructional practice. The daily use of group work and teaching and learning aids either prepared by the teacher or the pupils may not be accurate as there was no evidence of such aids in the classroom or use during the lesson. Our observation of the reading and comprehension lesson showed that the instructional methods utilized were inconsistent with those reported (Table 15).

**Table 15: Findings during Classroom Observation at REC School**

<i>Instructional Practice</i>	<i>Teaching Activities Used</i>	<i>Comments</i>
Use of a variety of teaching Methods	Teacher used two methods that involved learners-lecture, question and answer	Group reading lesson, 1 text per 3 pupils, teacher read while pupils listened
Use of materials by learners	Most learners shared reading text with others; did not manipulate any materials	3 or more pupils shared text as teacher read
Use of Materials by teacher to enhance learning	Used 2 kinds of materials that enhance learning	Used past NPSE question paper with text, used chalk to write passage on blackboard
Grouping of Learners	No grouping activity	Taught class as one group
Critical and creative thinking activities	Teacher lectures, asked questions, learners listen and respond	Encouraged only verbal response rather than written exercises
Questioning Skills	Asked simple recall and close-ended questions	Responses from children were often incorrect
Learners Asking Questions	Learners did not ask any questions	Almost half the class was inactive. Class not participatory
Teacher feedback to Learners	Gives feedback about correct responses only	Tr. dominated lesson
Use of Language to Improve Learner Understanding	Integrates English and home language consistently	Integrated English and Krio to enhance understanding
Opportunities for Learners	Learners have few opportunities to participate	Both boys and girls had few opportunities to learn

*Adapted From IEQ II (USAID) Survey, Malawi 1996*

It is evident from the above that there are obvious instructional lapses and lack of teaching and learning resources. Although considered one of the most experienced teachers (17 years) with a Higher Teachers Certificate (HTC primary) in the school with pre-service and in-service training, most recently by the SABABU project in teaching methods, the teacher was more inclined to use traditional talk-and-chalk methods for teaching. There is also a clear lack of preparation to teach lessons. By using almost one-third of class time to copy a passage on the blackboard further adds to the general concern about teachers' time on task.

#### IV) Teachers' Time on Task

According to the teacher and from discussions with the head and deputy head teachers, teachers were more likely to miss an average of 5 days per term from school due mainly to public holidays, personal/domestic issues, and natural causes such as sickness. The class teacher reported missing four days from school last term due to sickness and public holiday. School time is also wasted for reasons that are completely beyond the control of the school. As an example, I could not commence the collection of data in the school on a Friday because according to the head, about 50% of the older pupils particularly girls normally stay home to help parents with fish marketing. During my first visit to the school on January 8, 2009, almost 40% of the pupils enrolled had not yet reported since school commenced on January 3, 2009. Further, one third of the 14 teachers arrived later than 8.30am that morning while most teachers commenced lessons after 9.15am. The reasons for not being punctual included lack of transportation, domestic problems, and not feeling too well that day. The teachers seemed less motivated in the teaching profession for reasons related to what they described as poor conditions of service.

#### V) Conditions of Service for Teachers

During a focus group discussion with the teachers in the school, it emerged that two teachers not been paid salaries for the last two years. The school had to contact parents to help each teacher with the sum of fifty Leones (\$18) per month as incentive for the affected teachers. One teacher expressed his frustration with the conditions of service this way:

The ministry of education is to be blamed for this salary problem. Even for those of us that are trained and qualified with years of teaching experience, our monthly salary is about Le.250, 000 (\$83) while the cost of a bag of rice is Le.130,000 (\$43). This is more than 50% of the monthly salary. As for me, I'm not paid up to Le. 280,000 (\$93) per month and I have to give money to buy sauce, provide lunch for my children, and pay rent. So, I look for other means to sustain my family for each month; hence, I find hard to stay for 2 to 3 hours in the classroom. So, most of the teachers are traders in the classroom. What is the cause of such a practice by teachers?

The school does not presently provide housing for teachers nor do they receive remote allowances. Teachers also complained of the lack of adequate furniture for teachers forcing most to refrain from giving class assignments as they may not have tables or chairs to assess children's work. The question that readily comes to mind is whether these problems affected teachers' performance in general and by implication student's learning.

### Summary of REBEP Intervention at REC Primary school

Table 16 indicates direct capital expenditure on specific project items at the REC primary school-Waterloo, which was estimated from the approved project proposal. The data shows that a greater proportion of the inputs or resources, an estimated 61%, were utilized for civil works (52%) and the delivery of goods or furniture (9%).

Table 16: Summary of REBEP Intervention at REC School

Item	Specific intervention	Year	Status
1	*Construction of 2 Classroom block and HT office	2006	Completed
2	Construction of 3-hole toilet	2006	Completed
3	Construction of Water well (Bore hole)	2007	Not completed
4.	Teacher training (2 teachers)- Teaching Methods, Record keeping	2006, 2007	Completed
5	Training of SMC (Chairman)	2007	Completed
6	**Supply of Pupil's furniture- 80 Desks, 76 benches	2006	Delivered/Inadequate
7	Supply of Core Texts- English- 409 Mathematics-352 Science -221 Social Studies -409	2006	Delivered
			Inadequate
	Supply of Core Texts-English- 300 Mathematics-410 Science -150 Social Studies -195 <b>Sub-total:1055</b>	2007	Delivered
	Supply of Core Texts-English- 34 Mathematics-37 Science -19 Social Studies -37 <b>Sub-total:127</b>	2008	Delivered
<b>Grand Total of Textbooks Supplied: 2,573</b>			

*\*Observed cracks on wall and hallway floor. HT notified contractor but no action taken. \*\* Furniture for teachers not supplied contrary to proposal.*

Further, the supply of core textbooks to the school as at December 2008 accounted for another 37%. Above all, the teacher training component and training of the SMCs only accounted for a meager 2% and 0.5% respectively which clearly reflect a rather disproportionate emphasis on construction related activities over and above the improvement of teacher's instructional skills and capacity. This anomaly is indeed alarming and can only, perhaps, be explained by REBEP's overall strategy and underlying conceptual framework. The framework essentially drove both the design of the project and the subsequent allocation of resources-ensuring expanded access through infrastructure development.

Table 17: Estimated Direct Costs and Expenditure at REC School

Item	Quantity	Unit Cost (Le)	Total Budget	Percentage (%)
<b>Civil Works-Construction</b>				
• 2 classroom block	1	38,998,500	38,998,500	
• 3 Hole VIP Latrine	1	4,926,750	4,926,750	
• Well & Pump	1	9,962,000	9,962,000	
		<b>Sub-Total</b>	<b>53,887,250</b>	52.2%
<b>Goods</b>				
• Pupils Desk/Bench	80	110,250	8,820,000	
• Teachers Table/Chair	2	110,250	220,500	
		<b>Sub-Total</b>	<b>9,040,500</b>	8.8%
<b>Textbooks</b>				
• Core Textbooks	2,573	14,700	<b>37,823,100</b>	36.7%
<b>Teacher Training</b>				
• Training	2	930,009	1,860,018	
• Guides	2	14,700	29,400	
		<b>Sub-Total</b>	<b>1,889,418</b>	1.8%
<b>SMC Training</b>	1	498,130	<b>498,130</b>	0.5%
Total			<b>103,138,398</b>	<b>100%</b>

Figure 5 is a breakdown of the investments and resources allocated to REC school.

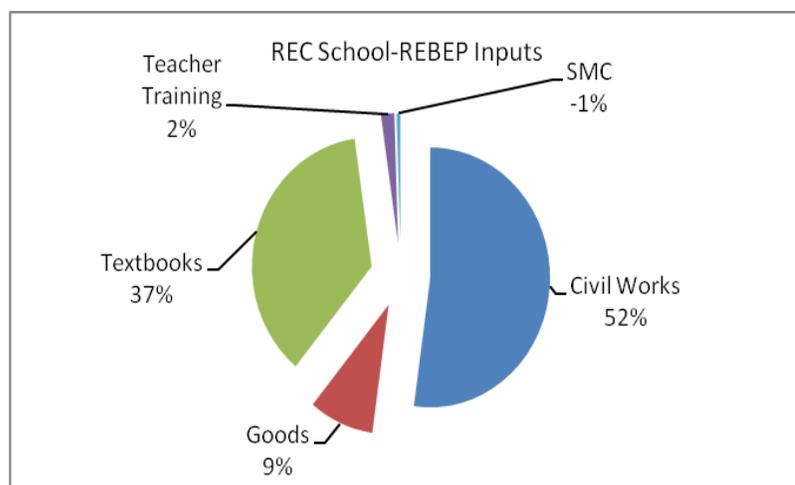


Figure 5: Estimated Expenditure per item at REC Primary school

Given these inputs, did REC primary school-Waterloo attain the basic operational level as a measure of fundamental quality? By extension, did the strategy and the intervention have any effects on learning achievement and school performance in general? The next section is an attempt to explore answers to these questions.

### Performance of REC Primary School in the NPSE

A look at the effect of REBEP's intervention on learning achievement as measured by performance in the NPSE using results from 2002 to 2008 at the school reveals interesting data. Data was also used for 2009 NPSE results for analysis of performance at the national level. However, results for each of the target schools selected for the case study were not available.

Table 18: NPSE Results-REC Primary School, Waterloo-(2002-2008)

Year	No. of Candidates			No. of Passes				No. of Failures			
	M	F	Total	M	F	Total	%	M	F	Total	%
2002	7	9	16	5	8	13	81	2	1	3	19
2003	8	10	18	8	6	14	78	0	4	4	22
2004	16	16	32	10	7	17	53	6	9	15	47
2005	26	31	57	12	11	23	40	14	20	34	60
2006	25	25	50	8	6	14	28	17	19	36	72
2007	37	36	73	19	18	37	51	18	18	36	49
2008	32	39	71	30	31	61	86	2	8	10	14
Total	151	166	317	92	87	179	56%	59	79	138	44%

Source: WAEC, 2008

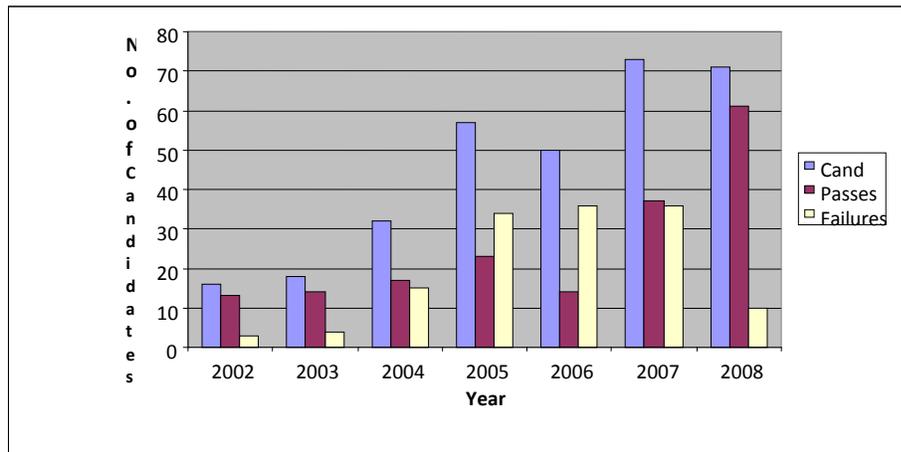


Figure 6: Distribution of Passes and Failures by Year at REC School

According to the data, about 44% of the total number of 317 pupils who took the NPSE between 2002 and 2008 failed to score the pass mark prescribed by the Ministry of Education. Throughout the period of implementation of the SABABU project, the percentage of failures increased steadily from 20% in 2002 to an all time high of 72% in 2006 with the pass mark at 230, two years after SABABU started.

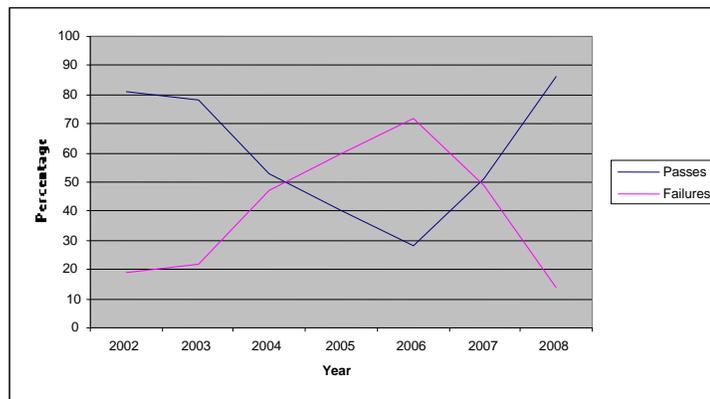


Figure 7: Percentage of Passes and Failures in NPSE by Year at REC school

In terms of gender, girls accounted for 57% of the total number of failures during the period 2002 to 2008. The proportion of girls failing to score the required pass mark for each year also remained high and increased steadily compared to boys. Further, the maximum aggregate

score fell from an all time high of 312 in 2002 to 301 in 2008. Equally alarming was the fact that the mean aggregate score in the NPSE declined steadily from 246 in 2002 to 224 in 2007, thereafter rising to 253 in 2008 (Table 19). Assuming the pass mark in the NPSE was pitched at 250 from the total score of 500, only 28% of pupils would have been considered eligible for transition to junior secondary school. However, an estimated 56% of the pupils who sat to the NPSE in 2008 would have become eligible compared to 10% in 2006, almost one year after the intervention. As shown in the Table, no candidate from REC school scored any aggregate in the two upper score-sets since 2002. In 2008, 69% and 17% of candidates scored aggregates between 230-279 and 280-329 respectively. However, the percentage of candidates scoring these aggregates was far less for the period 2002 and 2007 and varies from year to year. In 2003, it was 44%; falling to about 40% in 2005 and 28% in 2006. This pattern follows the national performance trend as reported by WAEC.

**Table 19: Distribution of Aggregate NPSE Scores by Year and Score-set at REC School**

<b>Score-set</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
< 230	4	10	19	34	36	36	10
230-279	9	8	12	20	13	37	49
280-329	3	0	1	3	1	0	12
330-379	0	0	0	0	0	0	0
380-429	0	0	0	0	0	0	0
430-500	0	0	0	0	0	0	0
<b>Total</b>	<b>16</b>	<b>18</b>	<b>32</b>	<b>57</b>	<b>50</b>	<b>73</b>	<b>71</b>
<b>Mean Agg.</b>	<b>246</b>	<b>228</b>	<b>226</b>	<b>223</b>	<b>216</b>	<b>224</b>	<b>253</b>
<b>Max Agg</b>	<b>312</b>	<b>264</b>	<b>281</b>	<b>287</b>	<b>291</b>	<b>278</b>	<b>301</b>
<b>Min Agg</b>	<b>147</b>	<b>169</b>	<b>176</b>	<b>137</b>	<b>165</b>	<b>140</b>	<b>127</b>

The above data closely mirrors the national trend in performance in the NPSE over the years at the primary school level. The situation is even more alarming if performance in individual subjects is examined (Table 20).

Table 20: Mean, Maximum, and Minimum Scores by Subject by Year at REC School

Year	Mathematics			English			Gen. Science			Q. Apt			V. Apt.		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
2002	52	32	43	72	31	51	61	28	53	68	29	50	68	27	48
2003	53	37	43	51	37	44	51	28	44	61	36	49	61	26	48
2004	49	36	45	60	36	46	52	32	42	65	32	48	65	30	46
2005	54	27	41	61	30	43	54	25	41	63	28	48	63	27	49
2006	56	35	42	62	33	45	56	32	39	61	29	45	65	27	45
2007	53	28	40	64	29	47	58	28	44	62	30	47	58	26	45
2008	58	27	48	76	28	55	63	22	54	64	26	51	60	24	46
<b>Average</b>	<b>54</b>	<b>32</b>	<b>43</b>	<b>64</b>	<b>32</b>	<b>47</b>	<b>56</b>	<b>28</b>	<b>45</b>	<b>63</b>	<b>30</b>	<b>48</b>	<b>63</b>	<b>27</b>	<b>47</b>

Source: WAEC, 2008

According to the above data, the mean scores in Mathematics remained consistently below 50% between 2002 and 2008, with 40% being the lowest percentage scored in 2007. The highest score in Mathematics was 58% recorded in 2008, while the lowest score was 49% in 2004. Further, pupils performed better in English, Science, and Quantitative Aptitude during the same period but scores remained below 50% from 2003 to 2007. The highest score in English for the period was 76% in 2008. However, the lowest score, 28 was also recorded that same year. Moreover, performance in Verbal Aptitude was consistently low with mean scores per year below 50 during the period under review. Again the highest mean score was 68% recorded in 2002 but decreased steadily to 60 in 2008. Also worthy of note is the fact that the lowest minimum score in Verbal Aptitude was 24 which was recorded in 2008. On the whole, performance in most subjects either declined consistently during the period or remained the same (Table 20). In Mathematics, the mean scores declined from 43% in 2002 to 40% in 2007. The mean score in Mathematics rose slightly to 48% in 2008 but below 50%. A similar pattern emerged in the other subjects; English, General Science, Quantitative and Verbal Aptitude.

In terms of gender, there was very little variation in performance between boys and girls. In 2002, for example, the maximum score in Mathematics was 52%, scored by a boy and a girl who were also the only two pupils to pass Mathematics in the school. In English, the

maximum score for boys and girls was 66% and 72% respectively. However, only four boys scored above 50% in English while six girls scored above 50%. In science, a similar pattern was evident; the maximum score for both boys and girls was 60, with 86% of boys and 78% of girls scoring above 50%. In 2006, the maximum scored by a boy in Mathematics was 56%, compared to 49% scored by a girl. In English, the maximum score for boys and girls was 61% and 62% respectively. In Science, the maximum score for boys and girls was 50 and 56 respectively. In 2008, only 9 boys from a total of 31 scored above 50% in Mathematics with the maximum score recorded being 50%. In comparison, 17 girls scored above 50% in Mathematics with the best score being 55%. This pattern in terms of performance by gender in the NPSE repeats itself in the three other subjects-Science, Quantitative Aptitude, and Verbal Aptitude. Finally, assuming that the pass mark was set at 50% in each subject and that the minimum acceptable aggregate for five subjects was 250 from a total of 500, a significant proportion of candidates that took the NPSE would have been considered failed.

In summary, the pattern emerging in terms of performance at the NPSE during implementation of the SABABU project is that the intervention may not have had the desired impact on learning achievement, controlling for other factors such as parents' socio-economic backgrounds, individual student factors, and external factors. In terms of inputs, the supply of textbooks was widely perceived by teachers and administrators as having contributed significantly to improving learning in the school. While improvement in the physical environment through the construction of a new classroom block and office space greatly enhanced increases in enrollment, especially for girls, the same cannot be said for learning. On the contrary, increases in enrollment contributed to a widening pupil/teacher ratio with a concomitant effect on teacher efficacy and effectiveness because of large class sizes and inadequate supply of teaching and learning resources.

Moreover, the implementation of the teacher training component was fraught with methodological and design issues. In this school, only two teachers from a total of fourteen benefited from the training without any plans for step-down trainings at the school level. The training was largely symbolic since there were no mechanisms to monitor the instructional practices of teachers and changes in pedagogy emerging there-from. Teachers continued to teach with little supervision both by the head teacher and the inspectorate staff and more often without prepared lesson plans and notes. It will be interesting to see the effect of interventions in the other selected schools.

### **SDA Primary School-Waterloo**

The Seventh Day Adventist (SDA) primary school located in Waterloo is owned by the Adventist mission in Sierra Leone. The school was established in the early 1960s in support of the needs of children of the Adventist community in Waterloo and its surroundings. Prior to the intervention by SABABU project in 2004, three new structures including a nursery, a library and a 4-classroom block school were constructed after the war in 2002. Most of the pupils come from homes where fishing and fish processing is the predominant economic activity. The SDA primary school was considered the elite primary school in the Waterloo community with a reputation for producing highly placed citizens in society.

#### **a) SDA School Demographics**

SDA primary school has 785 pupils on roll; 375 boys and 410 girls including a nursery section. School enrolment grew by almost 45% following the construction of new buildings in 2004 and 2005. There are 19 teachers; 8 males and 11 females with a wide range of qualifications and years of teaching experience at the primary level. There are two head teachers; one at the lower division level (nursery to Grade 3) and another at the upper division level (Grade 4 to 6). The pupil/teacher ratio was 41:1 which is within the projected REBEP target

of 40/1. This ratio however varies from one class to the other with lower infant classes reporting as high as 57 pupils per teacher. About 37% of the teachers are uncertified with 18% categorized as untrained and unqualified (secondary school leavers without pre-service teacher training). An estimated 47% of the teachers hold a Teachers' Certificate (TC) while 2 teachers have Higher Teachers' certificates (HTC-primary) from three-year pre-service teacher's colleges.

#### b) School Environment and Infrastructure

Unlike REC primary school, the SDA primary school was already well resourced in terms of physical structures. The school is well laid out with relatively new structures built with funds from benefactors in Europe through the SDA mission. As a result of the intervention, 3 new buildings comprising 10 classrooms, a toilet, and a kitchen were constructed. One building was left standing but in a state of disrepair following destruction during the war. With the construction of a three-classroom block with office space by SABABU, there are now 5 blocks with a total of 15 classrooms. Other inputs by the project include a three-room toilet facility, an incomplete water well, 4 sets of furniture for teachers, and 45 sets of desks and benches for pupils. From observations, the newly constructed building was already in a state of disrepair; cracks could be seen on the walls and the floor of the hallway (see photo).



Figure 8: SDA Primary school after repairs on hallway in January 2009

Both head teachers complained about the poor state of the construction work to inspectors of schools and even attempted to draw the attention of the contractors on several

occasions to no avail. The implementing agency was the Adventist Development and Relief Agency (ADRA) which employed sub-contractors for construction of both the REC and SDA primary schools. Further, even though the new block had been officially handed over to the school, work on the water well had still not been completed by January 2009. The well was not functioning during our visit to the school. Also, no housing was built for teachers.

**Table 21: SDA Primary School Structures and Infrastructure**

<b>Item</b>	<b>Before Intervention</b>	<b>REBEP Intervention</b>	<b>Total</b>
No. of Buildings	3	1	4
No. of Classrooms	10	3	13
School Toilets (Holes)	10	3	13
Water/Sanitation Facilities	1	1	2
State of Buildings	Deplorable	Good	
Teachers' Furniture-Adequacy • One set/Teacher	Inadequate 7 sets	Inadequate 4 sets	11
Pupils/Furniture • No. of Desks • No. of Chairs	Few Very Few	45 desks 45 benches	150 150
Type of Civil Works • Rehabilitation • Reconstruction • Construction	0 0 3	0 0 1	4

**c) Availability of Teaching and Learning Materials**

The distribution of core text books, teaching and learning materials, and other resources was a key component of the SABABU project. School records showed that the school received 193 core textbooks from the Ministry of Education between 2002 and 2004. As apart of the SABABU project inputs, 845 textbooks were supplied between 2005 and 2007 in the four core subjects areas-English, Mathematics, Science, and Social Studies. However, the total number of text books in stock at the time data was collected was 590 (Table 22). The school had only 2 copies each of the Harmonized Syllabus and Teachers Guides in Mathematics and Social Studies.

Table 22: Teaching and Learning Resources Supplied to SDA School

	BEFORE	REBEP INPUTS			
Textbooks	2002-2004	2005	2006	2007	Total (In Stock)
English	43	24	74	125	223 (129 in stock)
Mathematics	49	24	57	125	206 (146 in stock)
Science	53	24	44	125	193 (152 in stock)
Social Studies	48	24	74	125	223 (163 in stock)
Subtotal	<b>193 (MEST)</b>	<b>96</b>	<b>249</b>	<b>500</b>	<b>590</b>
Notebooks	Inadequate	0	0	0	0
Pens/pencils	0	0	0	0	0
Teaching Aids	0	0	0	0	0
Scheme of Work	0	0	0	0	0
Lesson notes	0	0	0	0	0
Other Resources	BEFORE	REBEP INPUTS			
Head Teacher's Office	0	1			
Library	0	None			
Resource Center	None	None			
School Garden	Yes	None			
Staff Quarters	None	None			

The distribution of supplied textbooks by REBEP has been a source of tension between the two head teachers as reported by one. In the two grades observed in the school (class six A and B), there were sufficient numbers of textbooks for the pupils to share. However, there was a general lack of other teaching and learning materials in the classrooms except for white chalk. One teacher was observed teaching social studies on the topic- Location and size of Sierra Leone- without a map. There were a few teacher made posters on the walls but were not relevant to the topic being taught.

d) School Management and Leadership

SDA primary school is operated by the SDA mission and managed by a school board selected by the mission. Following the intervention of SABABU, a school management committee (SMC) was established in 2005 which basically took over the functions of the board. The school also has a functioning Parents-Teacher Association (PTA) which is a consultative forum for decisions relating to the day-to-day running of the school. These decisions may include providing labor, helping pay incentives to teachers not on the schools' pay roll, helping with infrastructure, and addressing pupils' performance and disciplinary issues. The PTA meets

three times a year. In line with the objectives of the project, the chairman of the SMC benefitted from a training workshop organized by SABABU. According to the school leadership, SMC meets more frequently and oversees the school's budget more rigorously. However, budget control remains in the hands of the manager. The bulk of the school budget is derived from funds paid to the school by the Ministry of Education in respect of fees subsidy. Fees subsidy amounts to two thousand Leones per child per semester. The SMC meets at least twice per term according to the head teachers. One major issue that the SMC has been pre-occupied with since the first term was the construction of a fence around the school to reduce noise levels of passing motorists and encroachment on the school's land. Other reported functions of the SMC and PTA included provision of incentives for teachers that are not on the government payroll, staff and pupil discipline and infrastructure support through contributions by parents. The SMC has no say in hiring decisions nor does it initiate transfer of teachers. The authority to hire, transfer and recommend promotion of teachers rests entirely with the proprietors of the school, the SDA mission. As with the REC school, the SMC can be described as ineffective as their role needs clarification and review. Since the inception of the SABABU project, the head teachers have sought to encourage greater participation of the community in discussions to improve quality in the school. The community through the SMC and PTA helped to provide funds to support 2 community teachers who were not on the payroll; provided land for gardening; initiated a joint tree planting campaign with support from the Adventist Development and Relief Agency (ADRA); and supported the establishment of a nursery division in the school.

In response to questions on their role as the leaders of their different divisions, the head teachers emphasized performance of administrative roles over school management, teaching, staff supervision, and staff development. These administrative tasks include paying teachers' salaries, preparing salary returns to the ministry, collecting data for the district education office,

and disseminating policies to teachers. Management functions such as conducting in-service training of teachers, taking disciplinary action against teachers who violate the teachers' code of conduct are less of a priority to the heads. However, during the process of collecting data in the school, both head teachers referred me to the deputy head for relevant information on enrollment, staffing, academics, the REBEP project, and school-community relationship. It would seem the heads served in a symbolic role while the deputy head teacher carried out the day-to-day running of the school which made him more powerful than was expected of a deputy head.

e) Supervision and Staff Development

Two levels of supervision were identified: external supervision and internal supervision. External supervision was carried out by supervisors of schools and inspectors of the district education office (DEO). According to the heads, the last visit by any official from the DEO was in November 2008 when a senior supervisor came to collect data for head office. These supervisory visits seldom occur and when they do, the purpose was either to distribute teaching and learning materials, verification of teachers or to attend SMC or PTA meetings. Visits that are exclusively for monitoring and supervision purposes were few and far between, often once a term. The head teachers recalled that no official from the DEOs had carried out any supportive supervision such as conducting training or observing teachers' instructional practices in the last five years. The next level of supervision was internal, normally expected of head teachers. This may include observing teachers during lessons, reviewing lesson plans and lesson notes, and inspecting school registers. Supervision by heads has not been conducted in a systematic manner in the school. Since September 2008, only two teachers were reportedly observed by the heads. After observing a lesson, one of the head teachers commented:

Teachers taught well, classroom management was good, learning materials adequate. Class participation was encouraging; questions evenly distributed.

However, during my visit, the teachers observed did not demonstrate these abilities. Both teachers did not have lesson plans or notes for the lessons taught even though both claimed the head teacher reviewed the lessons before teaching. During an interview with the head teacher of the upper division who was newly appointed to the position from another district, she revealed that she had since refrained from reprimanding teachers for issues like irregularity at school, punctuality, lack of preparation, and ineffective teaching methods for fear of being slandered as bossy and arrogant. She remarked:

There are teachers who cannot even write their lesson notes well. When you run after them to submit their lesson notes and forecasts, there are a lot of things that you will likely experience from them; bitter things. They'll think that you're "forcey" (arrogant and unreasonable) even though you are only doing your job as a head teacher. Just like a farmer who cannot go to the farm without a cutlass; if you don't prepare your lesson notes, how well would you deliver the lesson to the children?

This more or less explains the lack of commitment by some heads of schools to enforced strict supervision of teachers and disciplinary actions when teachers fail to perform their duties. Most of the teachers may not be too happy in the job and so barely manage to perform at their best. No doubt, such lack of motivation had potential to seriously impact children's learning.

#### f) Instructional Practices and Classroom Management

This section focuses on five key elements that were critical for teachers instructional and classroom management practices- Classroom environment, Pedagogical support, Instructional and classroom management, teachers' time on task, and conditions of service.

#### l) Classroom Environment

At the request of the research team, two streams of grade six were selected for observation. There were 50 pupils present in each stream; 29 boys and 21 girls in stream A from a total roll of 59 and taught by a female teacher. In stream B, 16 boys and 34 girls were present from a total of 55 taught by a male teacher. In both streams, there were inadequate numbers of

furniture for pupils, organized in three columns and in rows with an average of 4 pupils per set of desk and bench. One teacher had a table and a chair supplied by the project while the teacher in stream B simply used one set of pupil's desk and bench as furniture. Boys and girls shared furniture and seemed to interact freely with one another. Stream A had a book cabinet for storage of textbooks even though the teachers preferred storing books at home for lack of security in the school. Chalk and blackboards were the main teaching aids with each surface of the boards fading, apparently from overuse and lack of renovation. The team verified that each teacher had teachers' guides in Mathematics, and Social Studies. Also, teachers and pupils had adequate supplies of the four core textbooks while some pupils had a few note books. However, the teachers could not produce the lesson notes for the lessons taught. One teacher presented previously signed and taught lessons dating back to November 2008. The classrooms are spacious but clearly overcrowded for 50 pupils. The teacher in stream A utilized the core text on Social Studies during the lesson whilst her counterpart simply used chalk, talk, and blackboard. Finally, there were few old posters on the walls of each class, some torn and some irrelevant to the topics being taught. None of the teachers used colored chalk during the lessons. Table 23 below summarizes other findings on teaching and learning resources in both classes.

Table 23: Availability of Teacher’s Guides, Textbooks, and Learning Materials at SDA School

Teachers Guide	Availability		Adequacy	
	Available	Unavailable	Adequate	Inadequate
Mathematics	✓		✓	
English	✓		✓	
Social studies	✓		✓	
Science	✓		✓	
<b>Core Textbooks</b>				
Mathematics	✓			✓
English	✓			✓
Social studies	✓			✓
Science	✓			
<b>Teaching/Learning Materials</b>				
Blackboard	✓		✓	
Chalk	✓			✓
Teaching Aids		✓		N/A
Ruler		✓		N/A
Pens	✓			✓
Pencils	✓			✓
Erasers	✓			✓
Reference Books		✓		N/A
Reading Books		✓		N/A

II) Pedagogical Support

Pedagogical support to teachers was also investigated in the school. Based on responses from both teachers, the male teacher participated in only one in-service training program on record keeping in the last three years which was organized by the school. The female teacher reported that she had not attended any in-service training since graduation from college in 1991. The male teacher reported that he had been observed at least once a term by the head teacher but never by the inspectors of schools. The female teacher indicated that she was hardly observed by the head but twice by the inspectors of schools. Both teachers indicated that the head teacher reviewed their lesson notes before teaching and gave useful feedback on how to improve on their methods of instruction. There are no mentor teachers in the school and the teachers mainly relied on the head teacher rather than peers for pedagogical support. According to the teachers, later confirmed by the head teachers, the inspectors only pay visits for administrative purposes such as teacher verification, data collection and to request ‘help’ from the school.

### III) Instructional and Classroom Management Practices

The instructional practices of grade six teachers were investigated to assess how such practices contributed to pupils learning. Below is a summary of responses of the teachers and notes from observations.

Table 24: Types and Frequency of Methods used in Instruction-SDA School

	<u>Never</u> (0)	<u>1-3 times/ term</u> (1)	<u>1-3 times/ month</u> (2)	<u>Once/ week</u> (3)	<u>2-3 times per week</u> (4)	<u>Daily</u> (5)
Lecture to the whole class						XY
Pupils copy from b/board						XY
Pupils use textbooks						XY
Question pupils' comprehension					X	Y
Encourage pupil questions						XY
Role play				Y	X	
Pupils work in small groups with group leader	Y				X	
Pupils work in pairs					XY*	
Singing				X		Y
Review pupil homework					X	Y
Pupils write assignments					X	Y
Administer exams or tests		XY				
Use teaching and learning aids you made yourself		Y	X			
Pupils use teaching and learning aids you/they made	Y				X	

*Adapted from IEQ II (USAID) Survey, Malawi 1996. X-male, Y-female Y\*-Reading Only*

From the responses, the main methods of instruction were lectures, pupils copying from the blackboard, and the use of textbooks if available. Activities such as role play, the use of teaching aids, and administering examinations and tests were seldom carried out by the teachers. It should be noted, however, that these were self reported answers by the teachers. From classroom observations carried out by the study team, the findings were inconsistent with the above responses (Table 25).

**Table 25: Findings on Instructional Practices during Classroom Observation at SDA School**

<b>Instructional Practice</b>	<b>Teaching Activities Used</b>	<b>Comments</b>
Use of a variety of teaching Methods	<ul style="list-style-type: none"> <li>○ Male teacher uses one method that does not involve learners.</li> <li>○ Female teacher used one or two methods that involved learners</li> </ul>	<ul style="list-style-type: none"> <li>○ Composition-teacher wrote own story on bb and pupils listened</li> <li>○ Social studies-lecture, question and answer, singing</li> </ul>
Use of materials by learners	<ul style="list-style-type: none"> <li>○ Learners did not manipulate materials</li> <li>○ Most learners shared reading text with others; did not manipulate any materials</li> </ul>	<ul style="list-style-type: none"> <li>○ One pupil asked to recount how he spent Christmas</li> <li>○ 2 or more pupils shared text for reference as teacher lectured</li> </ul>
Use of Materials by teacher to enhance learning	<ul style="list-style-type: none"> <li>○ Male teacher did not use any material to enhance learning</li> <li>○ Female teacher used textbook</li> </ul>	<ul style="list-style-type: none"> <li>○ Lesson was highly abstract</li> <li>○ Could have used a map</li> </ul>
Grouping of Learners	<ul style="list-style-type: none"> <li>○ No grouping activity in both classes</li> </ul>	<ul style="list-style-type: none"> <li>○ Taught class as one big group</li> </ul>
Critical and creative thinking activities	<ul style="list-style-type: none"> <li>○ Both teachers lectured, wrote on bb; learners listened and responded to questions</li> </ul>	<ul style="list-style-type: none"> <li>○ Male teacher simply narrated own story</li> <li>○ Female teacher asked pupils to echo answers to questions</li> </ul>
Questioning Skills	<ul style="list-style-type: none"> <li>○ Few questions asked</li> <li>○ Female teacher asked simple recall and close-ended questions</li> </ul>	<ul style="list-style-type: none"> <li>○ Only one pupil asked to recount Christmas story</li> <li>○ Repeat lesson, yet pupils could not provide right answers to simple recall questions</li> </ul>
Learners Asking Questions	<ul style="list-style-type: none"> <li>○ Learners did not ask any questions</li> </ul>	<ul style="list-style-type: none"> <li>○ No opportunity for pupils to ask questions; may lack confidence</li> </ul>
Teacher feedback to Learners	<ul style="list-style-type: none"> <li>○ Gives no feedback</li> <li>○ Gives feedback about correct responses only</li> </ul>	<ul style="list-style-type: none"> <li>○ No opportunity to give feedback; lesson not organized</li> <li>○ Some positive feedback by teacher</li> </ul>
Use of Language to Improve Learner Understanding	<ul style="list-style-type: none"> <li>○ Both teachers integrated English and home language (Krio) consistently</li> </ul>	<ul style="list-style-type: none"> <li>○ Use of local language may be due to lack of better methods to communicate learning points to pupils</li> </ul>
Opportunities for Learners	<ul style="list-style-type: none"> <li>○ Learners have no opportunity to participate except one</li> <li>○ Learners had few opportunities to participate</li> </ul>	<ul style="list-style-type: none"> <li>○ Little effort made to encourage participation by learners</li> <li>○ Learners participated through referencing of text and singing</li> </ul>

*Adapted From IEQ II (USAID) Survey, Malawi 1996*

The two teachers observed have between them 36 years of teaching experience with teaching certificates (TC). While the female teacher showed considerable enthusiasm and energy during the lesson, it was clear that the lesson had been taught before. One interesting aspect of the lesson was that the textbook was poorly utilized. Even though pupils shared copies of the textbook and had been referred to the relevant chapter, the teacher was preoccupied with lecturing. No pupil was asked to read from the text to either answer or clarify the differences between lines of longitude and latitude. Moreover, the teacher spontaneously burst into a song after realizing that most of the pupils were bored and not following the lesson. There was no process of lesson evaluation. The male teacher on the other hand must have been

caught by surprise when the head teacher informed him that I was going to observe him teach the lesson. The teacher demonstrated a complete lack of skill on how to teach composition at this level. Rather than commence with key words and vocabulary relating to the topic-How I spent my Christmas- the teacher simply narrated his own story which he wrote on the blackboard. Pupils were inactive and inattentive with some sleeping. Classroom control was poor as pupils left the class without excuses. Only one pupil was called out to narrate his own Christmas story while others copied that narrated by the teacher. Pupils were not assigned any exercises and the lesson was not evaluated. Neither lesson notes nor lesson plans could be produced when requested.

#### IV) Teachers' Time on Task

The issue of teachers' time on task can be viewed at three levels in the school; the institutional level, teacher level, and real class time. The number of school days missed as a result of public holidays and time lost by the school due to late commencement of classes accounted for at least 5 days per term. Delays to commence classes as a result of pupils not reporting early or due to public perception that classes will not start until after a week may account for at least an additional 5 days of time lost in a term. The head teacher also reported that some pupils often stay home on Fridays to help their parents in the fishing industry and that it was increasingly becoming a public perception in the community that children could stay home on that day. Moreover, time lost due to reasons that are specific to the teacher such as sickness, family issues, crisis, the weather, and negligence was even more of a concern in the school. One teacher reported missing 7 days due to sickness whilst the male teacher reported four days in addition to days lost as a result of public holidays. Finally, the actual time spent providing effective instructions to learners was a cause for concern. The male teacher spent at least 8 minutes on lesson introduction, 20 minutes on narrating his own Christmas story and

writing this on the blackboard, and 10 minutes as time allocated to a pupil to recount his own story whilst the class listened or pretended to listen during the 40 minutes lesson. No time was used for introduction of key vocabulary, class assignment, or lesson evaluation. From observation, the research team was not sure whether the pupils learnt anything from the lesson.

The female teacher was equally less prepared to teach the lesson, perhaps due to the public perception that school was still not in full throttle. The lesson had been taught before but the pupils did not seem to understand the key concepts being taught-longitude and latitude as measures of location. The introduction was brief, 5 minutes; the main activity was a lecture and chorus learning that lasted almost 25 minutes. At this point, the teacher burst into spontaneous singing without wrap up or evaluation. These instructional practices seemed common in the school as we observed other lessons involving different teachers. Thus actual time spent on learning activities in the classroom amounted to less than 50% of the allocated lesson time.

#### V) Teachers' Conditions of Service

The condition of service of teachers in Sierra Leone was a major point of discussion with heads of the school and the teachers. In response to an interview question as to how teachers' performance could be improved in the school to ensure quality, one head responded:

That's another area of concern. In Sierra Leone, teachers are not paid well and because of this, teachers are disgruntled. After the Christmas break, teachers have spent all their monies; so you come back to school with nothing left to live on. They end up losing concentration and feel less motivated to perform well. So teachers need to be paid well by increasing their salaries so that they can work hard. In other words, low salaries are a major factor in the poor quality of education.

The issue of teachers' poor conditions may not be specific to the SDA primary school but rather a national concern. The school provides no housing for teachers and the generally low salaries has diminished teacher's motivation to stay in the profession. Further, opportunities for in-service

training and staff development were either few or virtually none existent. The female teacher reported that since graduation in 1993, she had not attended any in-service training.

### Summary of REBEP Intervention at SDA Primary school

The table below summarizes the specific activities or interventions undertaken by the REBEP project in the SDA primary school from 2004 to 2008:

Table 26: Summary of REBEP Interventions at SDA School

Item	Specific intervention	Year	Status
1.	*Construction of 3 Classroom block and HT office	2006	Completed
	Construction of 3-hole toilet	2006	Completed
	Construction of Water well (hand pump)	2007	Incomplete
2.	Teacher training (2 teachers)-Teaching Methods,	2008	Completed
3.	Sensitization of SMC (Chairman)	2007	Completed
4.	Supply of Pupil's furniture- 45 Desks, 45 benches	2006	inadequate
	Supply of Teacher's furniture- 4 tables, 4 chairs	2006	
5.	Supply of Core Texts English- 24 Maths-24 Science -24 S/Studies -24	2005	Delivered
	Supply of Core Texts- English- 74 Maths-57 Science -44 S/Studies -74	2006	Delivered
	Supply of Core Texts- English- 125 Maths-125 Science -125 S/Studies -125	2007	Delivered

*\*Observed cracks on wall and hallway floor.*

Table 27 shows actual investments made at the SDA primary school. It could be seen that a significant proportion was allocated to school construction and supply of furniture to the school and Figure 9 below represents this in graphic terms.

Table 27: Estimated Direct Costs and Expenditure at SDA School

Item	Quantity	Unit Cost (Le)	Total Budget	Percentage (%)
<b>Civil Works-Construction</b>				
• 3 classroom block	1	51,947,500	51,947,500	76.8%
• 3 Hole VIP Latrine	1	4,926,750	4,926,750	
• Well & Pump	1	9,962,000	9,962,000	
		<b>Sub-Total</b>	<b>66,836,250</b>	
<b>Goods</b>				
• Pupils Desk/Bench	45	110,250	4,961,250	6.2%
• Teachers Table/Chair	4	110,250	441,000	
		<b>Sub-Total</b>	<b>5,402,250</b>	
<b>Textbooks</b>				
• Core Textbooks	845	14,700	<b>12,421,500</b>	14.3%
<b>Teacher Training</b>				
• Training	2	930,009	1,860,018	2.2%
• Guides	2	14,700	29,400	
		<b>Sub-Total</b>	<b>1,889,418</b>	
<b>SMC Training</b>	1	498,130	<b>498,130</b>	0.6%
		<b>Total</b>	<b>87,047,548</b>	<b>100</b>

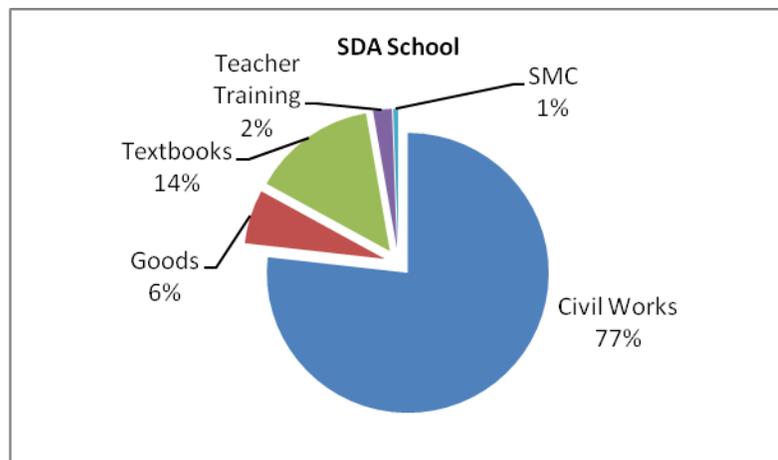


Figure 9: SDA School: Estimated Direct Expenditure per Item by REBEP

Figure 9 shows distribution of direct costs of inputs from REBEP at the SDA primary school. Of the estimated 87 million Leones allocated for project activities, civil works accounted for about 77% while furniture accounted for 6%. Together, these expenditure items utilized 83% compared to 14% for textbooks and 3% for training of teachers and the SMC. Of the 19 teachers

in the school, 5 of whom are untrained and unqualified (the target group), only 2 teachers were trained; the project met only about 10.5% of the school's teacher training needs. The priority was on infrastructure development and expansion. But did the huge spending on infrastructure translate into effective teaching/learning and the performance in the NPSE?

### Performance of SDA Primary School in the NPSE

Data on pupils' performance at the NPSE was collected for the period 2002 to 2008 (Table 28).

Table 28: Summary of NPSE results by Gender and Year- SDA School

Year	No. of Candidates			No. of Passes				No. of Failures			
	<i>M</i>	<i>F</i>	<i>Total</i>	<i>M</i>	<i>F</i>	<i>Total</i>	%	<i>M</i>	<i>F</i>	<i>Total</i>	%
2002	15	9	24	15	9	24	100	0	0	0	0
2003	31	23	54	27	21	48	89	4	2	6	11
2004	41	17	58	22	10	32	55	19	7	26	45
2005	30	22	52	21	11	32	62	9	11	20	38
2006	28	28	56	20	22	42	75	8	6	14	25
2007	64	53	117	49	26	75	64	15	27	42	36
2008	64	69	133	27	19	46	35	37	50	87	65
<b>Total</b>	273	221	494	181	118	299	61%	92	103	195	39%

From the data above, an estimated 39% of the total number of 494 candidates that took the NPSE between 2002 and 2008 failed to score the required pass mark. In 2002, the pass rate was 100% in the school but this percentage declined to 55% in 2004. The percentage of passes then rose significantly to 75% in 2006, one year after the intervention. However, the proportion of passes declined again in 2007 reaching an all time low of 35%. In 2008, the percentage of failures reached an all time high of 65% (Figure 10).

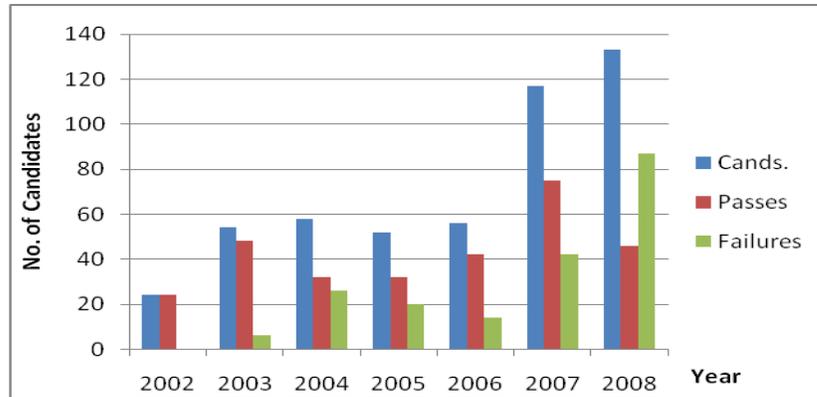


Figure 10: Distribution of Passes and Failures by Year at SDA School

The trend in performance shows some level of inconsistency during the period under study. In general, the number and percentage of failures rose steadily with increases in the number of candidates for each year. Assuming an aggregate of 250 as the pass mark for each year, the percentage of passes would have declined significantly for each year except for 2002. Thus, the intervention may not have had any significant effect on learning achievement during the period of implementation of REBEP in the school (Figure 11).

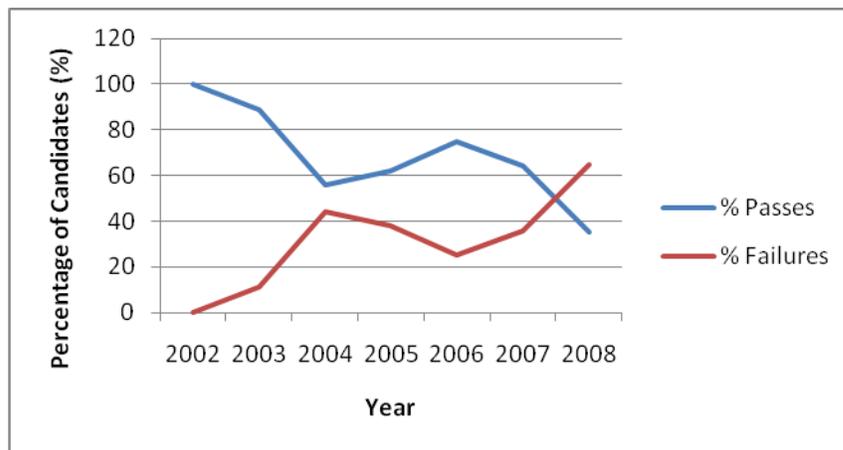


Figure 11: Trends in Passes and Failures by Year at SDA School

In terms of gender, there were no significant differences in performance during the period. Overall, girls accounted for an estimated 53% of the 195 failures between 2002 and 2008. Further, 66% of boys that took the NPSE scored the required pass mark compared to 53% of girls. In 2008, 72% of girls failed to score the required pass mark (230) compared to 57% of

boys. Further, the maximum aggregate score attained for each year ranged from 283 in 2007 to 305 in 2008. The lowest aggregate score, 132 was scored in 2008 by a male candidate. Further, an estimated 26% of candidates scored below aggregate 200 in 2008. No candidate scored aggregates in the two upper score-sets during the entire period (Table 29). Again, the aggregate scores are skewed towards the left or lower score-sets which are similar to the national trend in the NPSE.

Table 29: Distribution of Aggregate scores by Year and Score-set at SDA School

Score-set	2002	2003	2004	2005	2006	2007	2008
< 229	0	12	29	20	14	42	90
230-279	21	40	26	29	39	73	39
280-329	3	2	3	3	3	2	4
330-379	0	0	0	0	0	0	0
380-429	0	0	0	0	0	0	0
430-500	0	0	0	0	0	0	0
<b>Total</b>	24	54	58	52	56	117	133
<b>Mean Agg.</b>	258	245	229	236	244	237	217
<b>Max Agg</b>	298	288	292	286	302	283	305
<b>Min Agg</b>	230	203	141	177	180	138	132

Moreover, performance in each subject over the years was dismal. In Mathematics, the mean scores were below 50% for all years except 2007, the year the highest maximum score was attained-59% (Figure 12). The lowest mean score in Mathematics was 38% in 2008. In 2002, only 16% of the total number of candidates scored either 50 or above in Mathematics. However, the percentage of candidates that scored 50% and above fell to about 3% in 2004, and alarmingly to 0% in 2005 and 2006 from a total of 52 and 56 candidates respectively. The percentage of passes in Mathematics improved significantly to 62% in 2007 but fell to less than 1% in 2008. In 2008, only one candidate out of 133 scored above 50% in Mathematics. The mean scores in English, Science, Quantitative and Verbal Aptitude were much better.

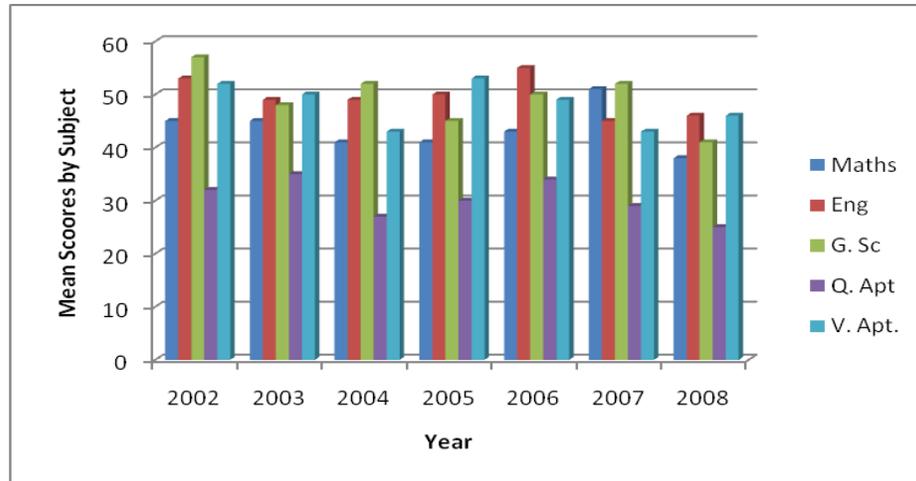


Figure 12: Mean Scores by Subject by Year at SDA School

In English, the maximum scores ranged from 63% in 2002 to 78% in 2008. In Science, maximum scores ranged from 54% in 2008 to 65% in 2007. In Quantitative Aptitude, maximum scores ranged from 62% in 2004 to 75% in 2002 while in Verbal aptitude, the range was 61% in 2004 to 68% in 2006. Nevertheless, these figures mask individual performances of candidates in these subjects considering the percentage of candidates scoring below 50%. In 2002, for example, 96% of 24 candidates scored above 50% in General Science compared to 37% of 52 candidates in 2005; 68% of 17 candidates in 2007; and 12% of 133 candidates in 2008. In Quantitative Aptitude, 62% of candidates scored above 50% in 2002 compared to 31% in 2004; 26% in 2006, and 33% in 2008. A similar pattern emerged for Verbal Aptitude where 70% of candidates scored above 50% in 2002 compared to 26% in 2004; 38% in 2006 and 32% in 2008. The decline in performance in individual subjects is consistent with the national trend.

Finally, there were no remarkable differences in the performance of boys and girls in the school although more boys failed to score the required pass mark from year to year. This is obvious considering that more boys took the NPSE in each year. Further, the highest scores in Mathematics from 2002 to 2004 were scored by girls. In 2002, one girl registered the best

performance overall, an aggregate of 298 compared to 264 scored by a boy. Based on the results, girls seem to be catching up with boys in Mathematics, General Science and English.

In summary, the effect of the series of interventions by REBEP on learning achievement as demonstrated by performances in the NPSE is yet to be realized in the school. There is however, a consensus of opinion among teachers and the heads of the school that the supply of core textbooks contributed significantly to children's learning even though this may not be reflected in performance at the NPSE. We next examine KDEC primary school in Kambia.

### **Kambia District Education Committee Primary School (KDEC)**

The Kambia District Education Committee (KDEC) primary school is one of many government-owned and supported primary schools in the north. It is directly supervised by the Kambia district education office. KDEC primary school is located in Kambia, the headquarter town of Kambia district located about two miles from the border with Guinea. Kambia is predominantly an agricultural district with mangrove swamps and an economy firmly rooted in agricultural production. The district has an estimated population of about 270,462 and a literacy rate of 32% (Males 48%; Females 18%) according to the 2004 Census Report. KDEC primary school was founded in 1974 at the request of the local community in Kambia town for education of their children. The school is the most populated and established primary school in Kambia district. Kambia town is a transit point to neighboring Guinea with lots of informal inter-state trade and smuggling activities. Notwithstanding such informal trade activities, 69% of the population of Kambia district is classified as poor (PRSP-Sierra Leone, 2005).

#### **a) KDEC School Demographics**

KDEC primary school has an enrolment of 1,023 (499 boys and 524 girls); 22 teachers mostly qualified and experienced cadre of teachers-10 males and 12 females and a pupil/teacher ratio of 47:1. There are however, variations in the pupil/teacher ratio with infant

classes having as high as 60 and grade six as high as 55 per teacher. About 68% of the staff is certified, with either a HTC or TC from pre-service teacher training colleges. Also, 32% of the teachers have experiences ranging from 5-9 years; 50% with 10 or more years of teaching experience and the rest with at least 2 years of post-qualification experience. There are also 2 specialized teachers in Arabic and 1 high school graduate with 11 years teaching experience.

b) School Environment and Infrastructure

As a well established school, KDEC primary has 3 classroom blocks that were reconstructed in 2002 by the Norwegian Refugee Council (NRC), an international NGO. The school has 10 classrooms, 10 toilet holes for teachers and pupils, and a non-functioning water-well with hand-pump facility (Table 30). Although the head indicated that teacher's furniture was inadequate, at least there is one set per teacher in each classroom. In terms of pupils' furniture, NRC supplied 74 desks and 99 benches in 2002 some of which are already broken. According to REBEP documents, KDEC primary school was earmarked only for partial grant support consisting of furniture supply, textbook distribution, and in-service teacher training. School records indicate that 194 desks and 208 benches were supplied as part of REBEP's support in 2003 but this was inadequate considering that an average of 4 pupils share one desk and a bench. The school does not have a library or resource center but is in close proximity to the newly reconstructed town library and the Kambia district education offices headed by a deputy director. There is however a staff room, office space for the head teacher and deputy, a school garden, and a playing field.

Table 30: KDEC Primary School Structures and Infrastructure

Item	Before Intervention	REBEP Intervention	Total
No. of Buildings	3	0	3
No. of Classrooms	10	0	10
School Toilets	10 rooms	0	10
Water/Sanitation Facilities	1	0	1
State of Buildings	Satisfactory	Satisfactory	
Teachers' Furniture-Adequacy <ul style="list-style-type: none"> <li>• None</li> <li>• One set per Teacher</li> </ul>	One set per teacher	None	Inadequate
Pupils/Furniture <ul style="list-style-type: none"> <li>• No. of Desks</li> <li>• No. of Benches</li> </ul>	74 99	194 208	264 -Inadequate 307-Inadequate
Type of Civil Works <ul style="list-style-type: none"> <li>• Rehabilitation</li> <li>• Reconstruction</li> <li>• Construction</li> </ul>	Rehabilitation	None	

c) Availability of Teaching and Learning Materials

As a school slated for partial grant support, the supply of core textbooks and teaching and learning materials was considered the main intervention activity in the school. According to the head teacher, KDEC school previously received supplies from the Ministry of Education but there were no records of this. As a result of support received through REBEP, an initial 389 textbooks were supplied in 2006 and later 615 in 2007 (Table 31). While these supplies were timely to enhance teacher effectiveness, they were inadequate. Statistically, it indicates an average of 3 pupils per core textbook contrary to the projected one pupil per textbook. Further, teaching aids, teachers' schemes of work, harmonized school syllabus and teachers' guides were either inadequate or not supplied to the school. There was only one harmonized school syllabus while the school provided books for teachers to prepare lesson notes using school subsidies.

Table 31: Teaching and Learning Resources Supplied to KDEC School

	<b>BEFORE</b>	<b>REBEP INPUTS</b>			
<b>Textbooks</b>	<b>2002-2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>Total In Stock</b>
English	No records	No records	115	215	330-Not verified
Mathematics	N/A	N/A	120	230	250-Not verified
Science	N/A	N/A	98	80	178-Not verified
Social Studies	N/A	N/A	56	90	146-Not verified
Subtotal	<b>N/A</b>	<b>N/A</b>	<b>389</b>	<b>615</b>	
<b>Teaching Aids</b>					
Pupils Notebook	Inadequate	Inadequate	Inadequate	Inadequate	0
Pens/Pencils	0	0	0	0	0
Teaching Aids	0	0	0	0	0
Scheme of Work	0	0	0	0	0
Lesson notes	0	0	0	0	0
<b>Other Resources</b>		<b>BEFORE</b>		<b>REBEP INPUTS</b>	
Head Teacher's Office		1		0	
Library		0		None	
Resource Center		None		None	
School Garden		Yes		None	
Staff Quarters		None		None	

d) School Management and Leadership

KDEC primary is administered through the district education office located some twenty yards from the school's compound. There is a functioning school management committee (SMC) which came into effect following REBEP intervention. The SMC had not received any training at the time of data collection. As part of the management structure, there is a functioning PTA which meets twice a term to discuss pupils' performance, teacher disciplinary issues, and community support to the school. The chairman of the SMC is a signatory to the school's account although he does not oversee budgetary allocations. Table 40 shows a summary of the functions of the SMC and PTA. Staff hire and transfer decisions, staff housing, infrastructure development, and support for teachers are outside the mandate of the SMC and PTA. Also, involvement in curriculum issues is restricted to provision of land for school gardening rather than inputs on what is to be taught. In terms of staff discipline, the head teacher and SMC can only recommend action to the district inspectorate office.

Further, the larger community often participated in discussions to improve quality in the school since REBEP intervention using PTA meetings as the forum. As part of efforts to work

closely with the community, the school leadership sought support from the community to help pay incentives to two community teachers, and jointly organized a Mother's Club to increase girls' enrollment. In terms of school administration, the head teacher was assisted by two deputies who supervise teachers in each of the two divisions in the school. Based on responses to a questionnaire, the head teacher considered administration/management responsibilities as his main role. This role includes paying teachers' salaries, attending meetings, and fund-raising. Roles such as staff supervision, in-service training and staff development, and teaching were not reported as roles performed although he indicated that he often assisted with teaching. The deputy head teachers supervise teachers in their respective divisions including monitoring attendance, reviewing lesson plans, and discipline.

e) Supervision and Staff Development

Two levels of supervision were identified; that carried out by supervisors and the inspector of schools as part of their traditional role, and internal supervision of staff by the head teacher or deputies. According to the head teacher, supervisors of schools visited KDEC school almost every week since the DEO office is a few meters away. On January 14, 2009, supervisors were at the school to verify teachers on the payroll, collected data, and disseminated policy information. While visits to the school were frequent, supervisors hardly carried out supportive supervision or observed teachers during lessons according to informal discussions with teachers.

At the school level, the head of school was charged with the responsibility to supervise teachers work and conduct but this role had been delegated to his two deputies. Teachers are required to submit lesson notes and plans before teaching but most hardly comply with the deadlines for submission of lesson notes and plans. When submitted, deputies hardly look for lesson cohesion and logic or types of methods chosen for delivery. The goal apparently was to ensure that lesson plans were prepared for signature and not about the substance of the

lessons. Issues of teacher conduct, irregularity, and absence from school are dealt with internally without recourse to official documentation. The head and his deputies only recommended disciplinary actions to the inspector of schools who exercised discretion to either dismiss cases or take disciplinary action if necessary. According to the head teacher, 9 teachers were observed in class during the first term. His impressions at the time were:

Teachers are effective and competent in their allocated classes. I use to give demonstration lessons as a way of correcting their mistakes after outlining the areas of mistakes.

During my visit, I observed a lesson being taught on land tenure system in Sierra Leone. The teacher could neither produce the relevant lesson notes nor the lesson forecast usually signed by the deputy head teacher. As we observed the lesson, it was obvious that the lesson had been taught during the first term of school. Such a practice of teaching lessons without preparation was common place according to one deputy head. She attributed the problem to a general lack of resources such as teachers' guides, reference books, and even exercise books.

#### f) Instructional Practices and Classroom Management

In terms of instructional practices of teachers and classroom management, the focus was on five key elements.

##### l) Classroom Environment

The research team observed one grade six stream which had 64 pupils on roll (36 boys and 28 girls). At the time of the visit, there were 55 pupils in class (32 boys and 23 girls) organized in four columns and six rows with at least 3 pupils sharing a desk and a bench. Boys and girls mixed freely in class with some single sex rows. The class was well lit and ventilated but it was clearly overcrowded with children tightly squeezed to fit into the available space. There was a chair and a table for the teacher which was in front of the classroom. The class had two scrappy blackboards, one in front which was defaced and the second at the back of the class.

There were a few old posters on the walls on a wide range of topics like hygiene, HIV and AIDS, Drug Abuse, the weather, and the class Time-Table. The displays were placed at appropriate heights, some very attractive whilst others were old and dilapidated and had no relevance to the topic being taught. Besides the white and a few colored chalk used by the teacher, no other teaching aids and textbooks were visible during the lesson (Table 32). Although, the teacher reported having teacher's guides in Mathematics and English, these could not be produced.

Table 32: Availability of Teacher's Guides, Textbooks and Learning Materials-KDEC school

Teachers Guide	Availability		Adequacy	
	Available	Unavailable	Adequate	Inadequate
Mathematics	✓		✓	
English	✓		✓	
Social studies		✓		N/A
Science		✓		N/A
<b>Core Textbooks</b>				
Mathematics	✓			✓
English	✓			✓
Social studies	✓			✓
Science	✓			✓
<b>Teaching/Learning Materials</b>				
Blackboard	✓		✓	
Chalk	✓			✓
Teaching Aids		✓		N/A
Ruler		✓		N/A
Pens/Pupils	✓			✓
Pencils	✓			✓
Erasers	✓			✓
Reference Books		✓		N/A
Reading Books		✓		N/A

*N/A: Not Applicable*

## II) Pedagogical Support

KDEC primary school received supplies of textbooks and 2 teachers' guides from REBEP and a few textbooks from NRC to enhance teacher effectiveness. However, support for in-service training or staff development was virtually non-existent. In response to questions, the grade six teacher reported attending one workshop on child-centered methodology organized by an organization called SLAMAT. He had been observed quite a few times last term by the head teacher. The last lesson plan written by the teacher was in December 2008 which was not

reviewed by the head teacher. Even though the school is in close proximity to the district education office, the teacher was supervised only once last term by one of the supervisors of schools, and a team of REBEP monitoring officials. Supervisors of schools and other staff of the district education office visit the school more for administrative purposes than for supportive supervision.

It was also reported that the school had resource or specialized teachers in topics like HIV and AIDS, Human rights, and record keeping. However, the grade six teacher neither requested for their support nor benefitted from their inputs since the start of the academic year. The role of these specialized teachers is not formalized. Also, peer-to-peer support was lacking between and among teachers in the school. Some teachers only request reference books from others when they deem it absolutely necessary. Finally, the school regulation required teachers to submit lesson plans to the head or deputy heads for review before teaching. This requirement was hardly met by teachers as demonstrated by the grade six teacher's failure to prepare a lesson forecast for the lesson taught during my visit.

### III) Instructional and Classroom Management Practices

Table 33 summarizes one teacher's instructional practice. It shows that the teacher reportedly used lecture methods less frequently while use of the blackboard to copy notes, use of textbooks, and use of question and answer techniques occurred on a daily basis. These were the most common instructional practices used by the teacher. Role plays, small group work, and singing were used less frequently while the administration of examinations and tests was done 1 to 3 times a month. Examinations were conducted less frequently by teachers because of large class sizes according to the teacher. Moreover, the use of teaching aids made by either the teacher or pupils and critical learning activities such as reviewing homework or pupils writing assignments supposedly happened 2 to 3 times a week.

**Table 33: Types and Frequency of Methods used in Instruction- KDEC School**

	<u>Never</u> (0)	<u>1-3 times/</u> <u>term</u> (1)	<u>1-3</u> <u>times/</u> <u>month</u> (2)	<u>Once/</u> <u>week</u> (3)	<u>2-3 times</u> <u>per week</u> (4)	<u>Daily</u> (5)
Lecture to the whole class		✓				
Pupils copy from b/board						✓
Pupils use textbooks						✓
Question pupils' comprehension						✓
Encourage pupil questions						✓
Role play				✓		
Pupils work in small groups				✓		
Pupils work in pairs						✓
Singing				✓		
Review pupil homework					✓	
Pupils write assignments					✓	
Administer exams or tests			✓			
Use teaching and learning aids you made yourself					✓	
Pupils use teaching and learning aids you/they made					✓	

*Adapted from IEQ II (USAID) Survey, Malawi 1996.*

These responses are inconsistent with what the research team observed (Table 34).

**Table 34: Observation of Instructional Practices at KDEC School**

<b><i>Instructional Practice</i></b>	<b><i>Teaching Activities Used</i></b>	<b><i>Comments</i></b>
Use of a variety of teaching Methods	Teacher uses one or two methods that did not involve learners.	Agric Science- pupils listened, lecture, question and answer
Use of materials by learners	Learners did not manipulate materials	Chorus answers to questions asked by teacher
Use of Materials by teacher to enhance learning	Teacher did not use any material to enhance learning	Lesson was highly abstract; could have used community resource to teach land tenure system
Grouping of Learners	No grouping activity in class	Taught class as one big group
Critical and creative thinking activities	Main activity was talk and chalk; wrote on bb; learners listened and responded to questions	Poor writing skills on blackboard; not readable from behind class
Questioning Skills	Asked leading and/or simple recall questions to solicit answers from pupils;	Repeat lesson; more rhetorical questions asked yet pupils provided wrong answers.
Learners Asking Questions	Learners did not ask any questions	No opportunity for pupils to ask questions; not sure if learning objective was achieved
Teacher feedback to Learners	Gives feedback about correct responses only	Some positive feedback by teacher; Ignored wrong answers
Use of Language to Improve Learner Understanding	Teacher integrated English, Krio, and Temne (home language) consistently	Use of local language may be due to inability to communicate learning points well in English
Opportunities for Learners	Learners have no opportunity to participate except one	Little effort made to encourage participation by learners

*Adapted From IEQ II (USAID) Survey, Malawi 1996*

The above table captures the interaction that occurred between the teacher and pupils during a lesson which by all indications is not different from what was observed at both SDA and REC primary schools. The teacher was in total control of the class with pupils listening or pretending to listen to the lesson. Classroom management was fairly satisfactory although much attention was paid to pupils in front while ignoring those at the back. In one instance, a pupil by whom I sat in the class was dozing but the teacher could not detect this. Throughout the lesson, reference was not made to the textbook nor did the teacher direct pupils to refer to the text. While the teacher attempted to present the subject matter logically, his lack of preparation and perhaps readiness made his delivery incoherent. The teacher however, was knowledgeable about the subject matter, land tenure system; an issue that is often the cause of conflicts in such environments. The lesson could not be completed in the time allotted; no assignment was given to the pupils and the lesson was not evaluated.

#### IV) Teachers' Time on Task

As reported elsewhere in this report, the actual number of days approved by the Ministry of Education for the school each year was seriously compromised by the number of days classes were cancelled for either public holidays or due to natural causes such as excessive rain in the summer or for reasons that are specific to teachers. According to one teacher, 5 days of school time were missed last term due to "illness" while an additional 5 days were missed at the start of the second term due to public perception that actual teaching will only commence in the second week. This situation may not be uncommon in the school. The normal day in the school starts at 8.15am with assembly and registration followed by the first lesson at 8.30am which lasts for 45 minutes. However, during my visit, the first lesson commenced at 9.00am. Each class is expected to have five lessons a day normally lasting 45 minutes. The three last lessons after the morning break at 10.00am each day last an average of one hour. While these

time slots on the time table should be strictly adhered to by teachers, this was not the case during my visit. At the time, only three lessons were taught by the teacher because of an ongoing teacher verification exercise by officials from the district education office. In fact, most classes were virtually at a standstill in the afternoon as the teachers left and flocked at the head teacher's office to be verified. During the lesson, the teacher was apparently not conscious of the time allotted to each learning activity-introduction, development, conclusion and evaluation. This may not be surprising as the teacher was less prepared to teach the lesson at the time. The issue of teachers' time on task may be one factor undermining their effectiveness in the classroom and their performance in general.

#### V) Conditions of Service

Teachers assigned to KDEC primary school are covered by the same teachers' conditions of service for public schools jointly developed by the Teachers' Commission and the Sierra Leone Teachers' Union (SLTU). As a senior teacher assigned to grade six, his monthly net salary was reported to be Le.233, 000 after taxes (US \$80). He was last promoted in April 2008 after almost six years in the school and a total teaching experience of 12 years. As with many other teachers in the school, there is no housing allowance and medical insurance while government approved remote and transportation allowances are hardly paid on time. The SMC and PTA have little or no resources to help teachers apart from supporting those who are not on the pay roll with monthly incentives amounting to less than \$18. Morale is low among teachers as made explicit by the head teacher:

Most teachers are in the job because there is no opportunity for better jobs now; otherwise many will leave. Secondly, in-service training is really important for teachers to be effective in the classroom. The supervisors of schools should not only be collecting data but also helping to train teachers in new methods, particularly in mathematics and science.

The teachers also complained about the lack of learning materials which they believed was affecting their effectiveness especially when schools could no longer ask children to pay fees which could have been used to buy the materials teachers needed.

### Summary of REBEP Intervention at KDEC School

REBEP support to the KDEC primary school commenced in 2003 but according to the head teacher, there were no records to show what specific inputs were received in 2003/2004. Records available indicate the following interventions were undertaken from 2005 to 2008.

Table 35: Summary of REBEP Interventions at KDEC School

Item	Specific intervention	Year	Status
1	Teacher training –(5 teachers)-Teaching Methods,	2005, 2007	Completed
2	Teacher training-7 Record Keeping, HIV/Aids (Other NGOs)	2006	Completed
3	Set up of SMC -1	2005	Completed
4	Supply of Core Texts- English- 115 Maths-120 Science -98 Social Studies 56 <b>Total: 389</b>	2006	Delivered
	Supply of Core Texts- English- 215 Maths-230 Science -80 Social Studies-90 <b>Total: 615</b>	2007	Delivered

Below is a breakdown of the expenditure by item based on REBEP records.

Table 36: Estimated Costs and Expenditure at KDEC School

Item	Quantity	Unit Cost (Le)	Total Budget (Le)	Percentage (%)
Civil Works	None	None	0	0
Goods	None	None	0	0
Textbooks	1,004	14,700	<b>14,758,800</b>	91
Teacher Training				
• Training	5	202,409	1,012,045	
• Guides	2	14,700	29,400	
		Sub-Total	<b>1,041,445</b>	6
SMC Training	1	446,750	<b>446,750</b>	3
		Total	<b>16,246, 995</b>	<b>100%</b>

Figure 13 below shows that an estimated 91% of the total inputs were direct expenditure on textbooks and teachers' guides compared to 6% on teacher training and 3% on SMC training. The expenditure on textbooks was by all accounts a significant intervention but did it have the desired effect on learning achievement particularly in the NPSE public examination?

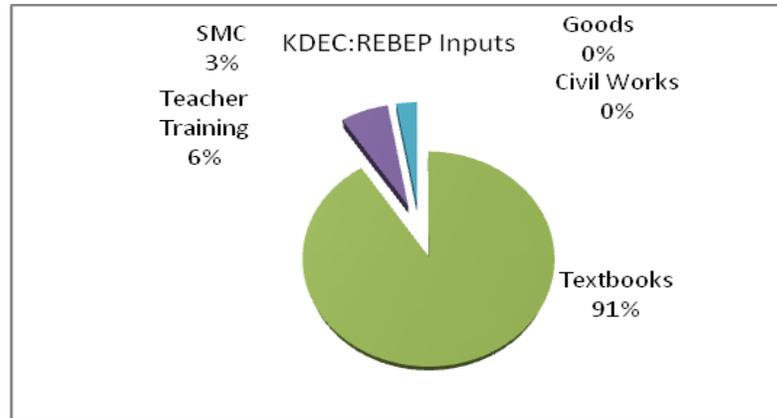


Figure 13: REBEP Inputs at KDEC Primary School

### Performance of KDEC Primary School in the NPSE

Summarized in Table 37 is the performance of pupils in the NPSE from 2002 to 2008 at the KDEC school in Kambia. According to the data, the total number of candidates taking the NPSE each year increased steadily over the period. However, only 69% of the 634 candidates were able to score the required pass-mark for each year, indicating that an alarming 31% of the candidates were not eligible for transition or admission to junior secondary school. Also, the percentage of failures in 2003, 2006 and 2007 was striking; an estimated 75% failed in 2003; 38% in 2006, and 53% in 2007 at the height of the intervention by REBEP.

Table 37: Summary of NPSE Results by Gender and Year-KDEC school:

Year	No. of Candidates			No. of Passes				No. of Failures			
	M	F	Total	M	F	Total	%	M	F	Total	%
2002	9	13	22	9	12	21	96	0	1	1	4
2003	33	15	48	11	1	12	25	22	14	36	75
2004	35	12	47	35	11	46	98	0	1	1	2
2005	57	23	80	57	20	77	96	0	3	3	4
2006	74	51	125	44	34	78	62	30	17	47	38
2007	101	85	186	53	34	87	47	48	51	99	53
2008	63	63	126	60	57	117	93	3	6	9	7
<b>Total</b>	<b>372</b>	<b>262</b>	<b>634</b>	<b>269</b>	<b>169</b>	<b>438</b>	<b>69%</b>	<b>103</b>	<b>93</b>	<b>196</b>	<b>31%</b>

Source: WAEC, 2008

Also, the trend in performance was inconsistent from year to year (Figure 14). More pupils failed in 2003 and 2007, estimated at 75% and 53% respectively. On the positive side, the highest percentage of passes recorded was 98% in 2004 which was followed by 96% and 93% in 2005 and 2008 respectively. Moreover, in gender terms, 35.5% of the total number of female candidates who took the NPSE between 2002 and 2008 failed to score the required pass mark compared to 28% of male candidates. Finally, the results indicate that more candidates would have failed if the required pass mark was set at 250, meaning that many more children would have dropped out of school each year.

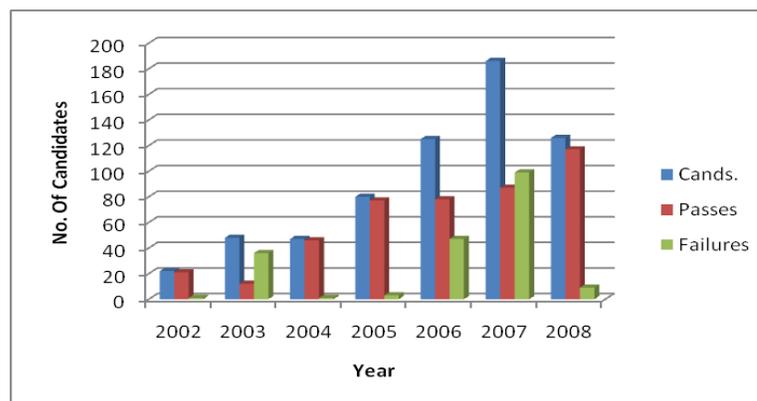
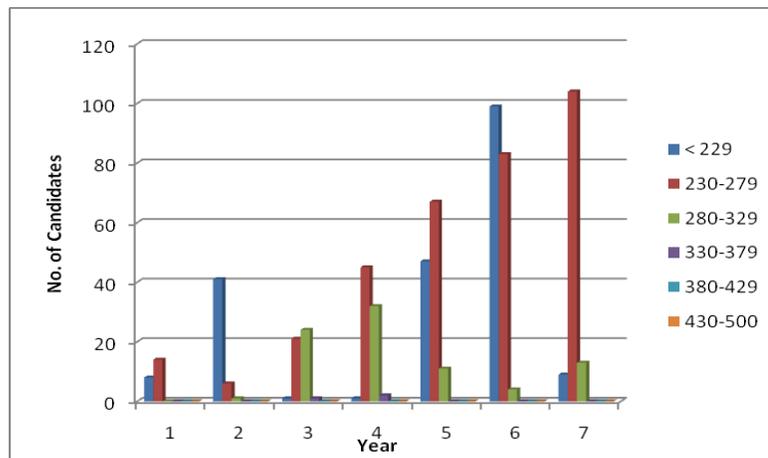


Figure 14: Distribution of Passes and Failures by Year at KDEC School

The rather dismal performance is further amplified in the distribution of aggregate scores for each year. The aggregate scores for each year indicate that they were significantly skewed towards the lower score-sets. In 2003, 98% of candidates scored below 280; 91% in 2006, and an alarming 98% in 2008, five years after the intervention by REBEP. Only 51% scored aggregates between the score-set 280-329 in 2004; 9% of 125 candidates in 2006, and only 2% of 186 candidates in 2007. The highest aggregate ever scored since 2002 was 333 in 2005. Only 3 candidates have so far scored above 330 in the last seven years.



Source: WAEC, 2008

Figure 15: Distribution of Aggregate Scores by Year at KDEC School

These results mirror the general pattern of performance in the NPSE across most public schools. In fact, raw scores in individual subject areas offered at the NPSE underscore the declining performance in the school. In Mathematics, for example, scores ranged from 38% to 51% in 2002 compared to 27% and 58% scored in 2007. The mean scores in Mathematics rose from 44% in 2002 to 65% in 2005 but fell below 50% in the next three years. Also, the number of candidates that scored above 50% in Mathematics rose steadily from 5% in 2002 to 99% in 2005 but fell sharply to 27% of 125 candidates in 2006 and 18.3% of 186 candidates in 2007. The proportion of candidates scoring 50% and above rose slightly to 42% in 2008 from a total of 126 candidates.

In comparison, candidates performed much better in English with the mean maximum score at 70% for the period compared to 60% in Mathematics. The highest individual score recorded in any subject was 81% in English in 2005. Further, more candidates scored above 50% in English with the proportion rising from 14% in 2002 to 48% in 2005. However, the proportion fell steadily to 47% in 2006 and 42% in 2007 before increasing to 76% in 2008. In General Science, the maximum score was above 62% for all years with the mean estimated at 50%. Also, the performance of candidates in Quantitative and Verbal Aptitude was similar to Mathematics in terms of range. Overall, candidates who sat to the NPSE at KDEC primary school performed better during the period under study than those at REC and SDA primary schools in Waterloo. Above all, boys and girls performed almost at the same level each year in the five subjects taken in the NPSE. In Mathematics, for example, the highest score in 2002 was 51% scored by a girl whilst in 2003, the highest score was 55% scored by a boy. In 2004, 67% was the maximum score in Mathematics which was scored by a boy and a girl. In fact, the two highest scores ever recorded by a candidate in any subject (76% and 81% in English) at KDEC school between 2002 and 2008 were scored by girls. Thus in terms of gender, differences in performance in the NPSE have remained minimal and insignificant.

In summary, although KDEC school only benefitted from partial grant support from the SABABU project, candidates taking the NPSE have performed better than those at REC primary and SDA primary schools. According to the head teacher and endorsed by the grade six teacher, the supply of textbooks may be partly responsible for the outcomes in learning achievement although such an assertion may be premature without any scientific evidence.

### **Sierra Leone Muslim Brotherhood Primary School (SLMB)**

SLMB primary school was founded in 2001 by the SLMB mission after the war to help provide education to children in Romacca village located on the main road about four miles to Kambia town. SLMB Romacca started off as a community school supported by the local community but had neither permanent structures nor teachers on government payroll. Before the intervention by REBEP in 2004, classes were held in a temporary shelter using furniture and shelter materials provided initially by UNICEF as part of the agency's support to community schools. One positive outcome of the ten year war was the emergence of community schools throughout Sierra Leone initiated by communities which were resettled after the war. Romacca has a population of less than 2,000 with the bulk of its people engaged in subsistence farming.

#### **a) SLMB School Demographics**

The construction of a new school block attracted children from nearby villages which helped to increased enrolment by nearly 60% in two years. The school has 7 male teachers serving a population of 304 pupils (156 boys and 148 girls). The pupil-teacher ratio is estimated at 43 per teacher. In terms of qualifications, 4 of the teachers are certified while the rest are untrained and unqualified. The head teacher has a higher teachers' certificate with 17 years teaching experience. The six other teachers have at least 11 years teaching experience with one described as an Arabic specialist teacher. The head teacher taught grade six and administered the school.

#### **b) School Environment and Infrastructure**

The school environment and the state of infrastructure at the SLMB primary school was perhaps in a class of its own (photo). The construction of the six classroom block building was coordinated and supervised by the international NGO ActionAid (Sierra Leone). Prior to REBEP

intervention, the school was run in a temporary shelter using plastic sheeting made up of 3 classrooms. Actual completion of civil works started in 2004 and was completed in 2005.



Figure 16: SLMB Primary School, Romacca- Kambia District

As part of the intervention, a toilet with 6 holes, and a well with a hand-operated pump was constructed and sets of furniture for teachers and pupils were supplied to the school (Table 38). Most of these facilities with the exception of the well were in excellent condition during the visit by the research team in January 2009. The new and only block has office space for the head teacher and spacious classrooms. A staff quarter comprising two apartments was also built to help alleviate teacher's housing problems.

Table 38: SLMB Primary School Structures and Infrastructure

Item	Before Intervention	REBEP Intervention	Total
No. of Buildings	0	1	1
No. of Classrooms	3	6	9
School Toilets	0	1 (6 rooms)	1
Water & Sanitation Facilities	0	1	1
State of Buildings	Unsatisfactory	Excellent condition	Excellent
Teachers' Furniture-Adequacy			
• One set per Teacher	None	One set per Teacher (8)	8
Pupils/Furniture			
• No. of Desks	20	115	Adequate
• No. of chairs/benches	28	115	Adequate
Type of Civil Works			
• Reconstruction	None	Construction	
• Construction		Staff Quarters	1

c) Availability of Teaching and Learning Materials

School records showed that textbooks were the major teaching and learning materials supplied to the school since 2006. Although I was privy to previous efforts by UNICEF and the Norwegian Refugee Council to supply some school materials such as school registers, exercise books, pens, pencils, erasers, rulers, chalk, dusters, crayons, etc between 2002 and 2003, these could not be accounted for. With the school population at 304, it was reasonable to conclude that textbook supply was adequate. However, notebooks, pens, pencils, teaching aids, schemes of work, and lesson notes were not supplied. The few lesson notes available were provided by the school using fees subsidy.

Table 39: Teaching and Learning Resources supplied to SLMB School

	BEFORE	REBEP INPUTS			
Textbooks	2002-2004	2005	2006	2007	Total In Stock
English	0	0	5	245	250
Mathematics	0	0	15	245	260
Science	0	0	25	124	149
Social Studies	0	0	15	245	260
Subtotal	0	0	60	859	919
<b>Learning Materials</b>					
Notebooks	Inadequate	Inadequate	Inadequate	Inadequate	Not verified
Pens/Pencils	0	0	0	0	0
Teaching Aids	0	0	0	0	0
Scheme of Work	0	0	0	0	0
*Lesson notes	0	0	0	0	0
<b>Other Resources</b>					
Resource	BEFORE		REBEP INPUTS		
Head Teacher's Office	0		1		
Library	0		0		
Resource Center	0		0		
School Garden	Yes		0		
Staff Quarters	0		1		

The lack of teaching aids in classrooms was also noted in the school. At the time of the visit, the school was running out of supplies of chalk.

d) School Management and Leadership

SLMB school was managed by the Sierra Leone Muslim Brotherhood mission through an appointed education manager. The education manager, often in consultation with the head

teacher, selected the School Management Committee (SMC). The SMC only served in an advisory role with little or no inputs in budget and financial and curriculum matters. The SMC was established in 2005 as part of the REBEP's portfolio and was fully functional. The SMC chair benefitted from REBEP training in 2006 on education of the girl child. It was also reported that the SMC became more involved in school activities after REBEP intervention as members paid relatively more visits than before. The SMC often took part in hiring and transfer decisions initiated by management although their inputs were subject to approval by the education manager. The school also had a functioning PTA which met twice a term. The PTA participated in some decision making processes such as pupils' discipline and performance, staff discipline, and joint school-community programs such as the agricultural project implemented in 2008. The community provided land for school gardening as well. Finally, the larger community often participated in discussions relating to improvements in educational quality in the school.

In terms of leadership, the responsibility fell heavily on the appointed head teacher who took office in 2007. He was the most qualified staff in the school at the time of data collection. The head combined his leadership role with responsibility to teach grade six. According to the head, the performance of administrative roles was considered his main function and not management of the school. Other roles such as staff supervision, in-service training and staff development were of lesser priority for the head teacher. The head teacher's limited management role provided insight into how much authority the head had in terms of decisions relating to staff hiring, transfers, promotions, and staff discipline.

#### e) Supervision and Staff Development

The responsibility to supervise teachers in primary schools traditionally falls on the head of the school while external supervision is expected to be carried out by the district education office through supervisors of schools. The extent to which these expectations are being met at

the SLMB primary school was questionable as with other schools. In his response, teacher supervision was not identified as a primary function by the head of the school. Moreover, supportive supervision had not been carried out effectively by the Ministry of Education. According to the head teacher, supervisors of schools visited the school once every term; the last visit was in October 2008 to collect data and monitor the teacher verification exercise. During the first term, the head teacher reported informally observing 4 teachers during lessons. His comments on the ability and effectiveness of teachers were:

My teachers are very hard working, regular and well prepared everyday, although most of them are community teachers working without pay from the government. They are approved but not on payroll.

However, the head teacher who combined his leadership role with teaching grade 6, could not produce lesson notes when observed during a Mathematics lesson. Although the teachers may be described as hardworking probably because of their sacrifice to continue teaching without pay, effective supervision was lacking. In terms of staff training and development, the head attended a workshop on teaching science and mathematics in 2007 which was organized by the Japanese development agency JICA (Sierra Leone). The workshop introduced teachers to child-centered methods of teaching Science and Mathematics. The head teacher and 2 other teachers also participated in a workshop on HIV and AIDS that was organized and funded by the Forum for African Women Educationalists (FAWE) in 2007. Teachers in the school also benefitted from a number of workshops organized either by the head teacher or external agencies. The head teacher reported that the school organized at least one in-service training every term; the last of such trainings was in January 2009 which focused on record keeping, preparation of lesson notes, and closing registers. Moreover, 2 teachers participated in a training organized by SABABU in 2005 focusing on teaching methods and improving teaching skills. In 2006, 3 teachers participated in a health management workshop

organized by HSSP. It was not too clear to what extent these workshops helped to improve teachers' effectiveness and performance over the years. If any, observations of the head teacher during a Mathematics lesson showed a lack of knowledge or the application of child-centered methodologies in his teaching.

f) Instructional Practices and Classroom Management

The findings in terms of instructional and classroom management focused on five items.

l) Classroom Environment

As noted earlier, the physical environment of both the school and the classrooms is excellent. The classes are generally much smaller; for example, enrolment in grade six was 20 while the number of pupils actually present in class during our visit was 9. There was an average of 2 pupils per set of desk and bench unlike other schools indicating adequate furniture. The classes were well laid out in three columns and five rows, well ventilated and sufficient light. In terms of availability of teaching and learning materials in grade six, pupils had exercise books, pens and pencils while the teacher used chalk to write on the blackboard (Table 40). The teacher also had a textbook in mathematics. There were no posters on the walls and teaching aids were not utilized during the lesson even though teaching aids could have enhance pupils' understanding of the concept being taught (Fractions).

Table 40: Availability of Teacher’s Guides, Textbooks and Learning Materials-SLMB

Teachers Guide	Availability		Adequacy	
	Available	Unavailable	Adequate	Inadequate
Mathematics		✓		N/A
English		✓		N/A
Social studies		✓		N/A
Science		✓		N/A
<b>Core Textbooks</b>				
Mathematics	✓		✓	
English	✓		✓	
Social studies	✓		✓	
Science	✓		✓	
<b>Teaching/Learning Materials</b>				
Blackboard	✓		✓	
Chalk	✓			✓
Teaching Aids		✓		N/A
Ruler		✓		N/A
Pens/Pupils	✓			✓
Pencils	✓			✓
Erasers	✓			✓
Reference Books		✓		N/A
Reading Books		✓		N/A

N/A: Not Applicable

## II) Pedagogical Support

SLMB primary school receives considerable pedagogical support in the form of in-service training workshops organized by the school head and agencies such as JICA, FAWE, and REBEP. Also, supervisors of schools from the district education office reportedly observed teachers whenever they visit the school. Such visits are limited to once per term. However, the supervisors hardly conducted training in methodology or provided much needed supportive supervision. Moreover, as the most qualified and experienced staff, the head teacher had organized needs-based training from time to time in areas such as record-keeping, lesson planning and closing of registers. However, peer-to-peer support was lacking amongst teachers. There was a specialist teacher who taught Arabic in each class for at least once a week. Finally, even though the head teacher reported that teachers were required to prepare and submit lesson notes and lesson forecasts for his signature, it was doubtful whether there were any

sanctions for defaulting teachers. In fact, I observed a lesson being taught by the head teacher without any accompanying lesson notes.

### III) Instructional and Classroom Management Practices

The table below summarizes the responses of the head teacher to questions relating to his mode of instructions and classroom management.

Table 41: Types and Frequency of Methods used in Instruction -SLMB School

	<u>Never</u> (0)	<u>1-3</u> <u>times/</u> <u>term</u> (1)	<u>1-3</u> <u>times/</u> <u>month</u> (2)	<u>Once/</u> <u>week</u> (3)	<u>2-3 times</u> <u>per week</u> (4)	<u>Daily</u> (5)
Lecture to the whole class			✓			
Pupils copy from b/board						✓
Pupils use textbooks						✓
Question pupils' comprehension						✓
Encourage pupil questions						✓
Role play				✓		
Pupils work in small groups					✓	
Pupils work in pairs			✓			
Singing	✓					
Review pupil homework						✓
Pupils write assignments						✓
Administer exams or tests			✓			
Use teaching and learning aids you made yourself					✓	
Pupils use teaching and learning aids you/they made					✓	

*Adapted from IEQ II (USAID) Survey, Malawi 1996*

The responses indicate that the common instructional methods used on a daily basis were the use of chalk and the blackboard, textbooks, and questioning. The use of small group work, role plays, and pairing were also used frequently. However, the administration of examinations and tests to determine pupil's understanding of the concepts taught occurred only 1 to 3 times a month if at all. Further, delivering lectures to the whole class occurred at the same frequency as testing and examinations. It should be noted that the table summarizes what the teacher reported. Nevertheless, our observations of the teacher showed vastly different instructional and classroom management practices (Table 42).

The introduction to the lesson was short and to the point linking the previous lesson to the present. However, the degree of pupils' participation was very weak and restricted to answering questions posed by the teacher. Pupils neither asked questions nor initiated any interactions with the teacher. The main activity was a lecture on two worked examples to demonstrate how to calculate ratios in story problems.

Table 42: Observations on Instructional Practices during Lesson at SLMB School

<b>Instructional Practice</b>	<b>Teaching Activities Used</b>	<b>Comments</b>
Use of a variety of teaching Methods	Teacher uses one method that did not involve learners.	Maths lesson was a lecture session involving question and answer
Use of materials by learners	Learners did not manipulate materials	The lesson on Fractions was taught without any activity
Use of Materials by teacher to enhance learning	Teacher did not use any material to enhance learning	Lesson was highly abstract; used a drawing of oranges instead of bringing to class oranges
Grouping of Learners	No grouping activity in class	Taught class as one big group
Critical and creative thinking activities	Teacher lectures, learners listen to teacher	Opportunity for creativity not provided.
Questioning Skills	Asked leading and/or simple recall questions to solicit answers from pupils;	Asked leading questions and encourage chorus answers.
Learners Asking Questions	Learners did not ask any questions	No opportunity provided for pupils to ask questions.
Teacher feedback to Learners	Gives feedback about correct responses only	Some positive feedback by teacher; Ignored wrong answers
Use of Language to Improve Learner Understanding	Teacher integrated English and , Krio consistently	Used local language to explain difficult concepts; could not effectively use English to explain.
Opportunities for Learners	Learners have few opportunities to participate.	Learner participation limited to answering questions.

*Adapted From IEQ II (USAID) Survey, Malawi 1996*

The pupils continuously read the textbooks as the lesson progressed. No teaching aids were used other than a drawing of proportions of oranges even though oranges were available in the school compound. Nevertheless, the teacher knew the subject matter well as he showed confidence in his delivery. He displayed excellent class management skills and related to the pupils well. However, assignments were neither given to the pupils during the lesson nor at the end.

#### IV) Teachers' Time on Task

The head teacher was absent from school for a total of 7 days in the first term due mainly to reasons such as attending meetings at either the district education office in Kambia, or

at the SLMB mission in Freetown or participating in workshops. Further, school time was reduced by the number of official public holidays, delays to reopen after the Christmas break, and the public perception that little learning happens during the first week of term. At the class level, time was wasted unnecessarily; for example, during my visit to collect data, almost 50% of grade six pupils were sent home for not paying lesson fees usually organized by the school in preparation for the NPSE. Further, the times allocated to lessons were not effectively and fully utilized for instructions. Almost 25% of the allotted time class time was wasted for one reason or the other.

#### V) Teachers' Conditions of Service

The deplorable state of the teaching service in Sierra Leone also applies to teachers at the SLMB school; low salaries and lack of incentives. However, the construction of a teachers' housing unit has helped to ease teacher's housing problem. Moreover, the prospects for promotion in the teaching profession were hardly based on merit, if they do occur at all, according to some of the teachers. Promotion decisions are the prerogative of the SLMB education manager. Almost every teacher employed at the school had taught for at least 11 years; implying eligibility for promotion as senior teachers. Finally, transportation, health and remote area allowances were not only meager but also hardly paid on time. The Ministry of Education and the teachers' union have been in dialogue over this issue for the past five years.

#### **Summary of REBEP Intervention at SLMB School**

SLMB primary school was designated for full grant support by the REBEP project since 2004. By January 15, 2009, the following interventions were undertaken in the school either directly by SABABU or indirectly through various sub-contractors.

Table 43: Summary of REBEP Intervention at SLMB Primary School

Item	Specific intervention	Year	Status
1.	Construction one building (6 classrooms), Teachers quarters	2005	Completed
2.	Supply of Furniture- <ul style="list-style-type: none"> <li>• 115 Desks for pupils</li> <li>• 115 benches for pupils</li> <li>• 8 sets of furniture for teachers</li> <li>• 1 set of desk/chair for Head</li> </ul>	2005	Delivered
3.	Teacher training -2 teachers)-Teaching Methods	2005	Completed
4.	Set up of SMC	2005	Completed
5.	Supply of Core Texts- English- 5 Mathematics-15 Science -25 Social Studies -15 <b>Total: 60</b>	2006	Delivered
	Supply of Core Texts- English- 245 Mathematics-245 Science -124 Social Studies -245 <b>Total: 859</b> <b>Grand Total of Textbooks: 919</b>	2007	Delivered

As shown in Table 44, civil works in terms of a new 6 classroom block and a teachers' quarter constitute the main project activity. Goods and services consisting of the supply of furniture for pupils and teachers, supply of core textbooks, training of untrained and unqualified teachers, and orientation of the SMC were also undertaken since 2004.

Table 44: Estimated Costs and Expenditure at SLMB School

Item	Quantity	Unit Cost (Le)	Total Budget (Le)	Percentage (%)
Civil Works	6 classrooms	105,000,000	<b>105,000,000</b>	79.28
Goods				
• Pupils	115	105, 000	12,075,000	
• Teachers	8	105,000	840,000	
• Head Teacher	1	131,000	131,000	
		<b>Sub-Total</b>	<b>13,046,000</b>	9.85
Textbooks	919	14,700	<b>13,509,300</b>	10.2
Teacher Training				
• Training	2	202,409	404,818	
• Guides	2	14,700	29,400	
		<b>Sub-Total</b>	<b>434,218</b>	0.327
SMC Training	1	446,750	<b>446,750</b>	0.337
<b>Grand Total</b>			<b>132,436,268</b>	<b>99.994</b>

These expenditures translate proportionately as follows:

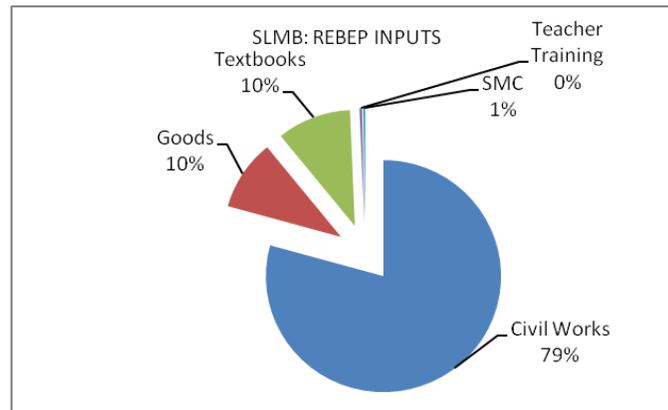


Figure 17: REBEP Inputs at SLMB Primary School

The graph represents capital expenditure on specific project items at the SLMB primary school in Romacca, Kambia district. It indicates that a far greater proportion of the intended resources, an estimated 79.3% of funds, were utilized for civil works compared to 10% on textbooks and a near 0% for teacher training. In fact, the proportion of expenditure on civil works and furniture (goods) combined amounted to about 90% of the overall project budget for the school. While it is understandable that much of the funds were utilized for construction of a new school, the disproportionate expenditure on teacher training is equally alarming. This anomaly could perhaps be explained by the overall objective and strategy that drove both the design of the REBEP project and allocation of resources-ensuring increase in access and attainment of a tentative fundamental quality level.

#### **Performance of SLMB Primary School in the NPSE**

Unlike other schools discussed earlier, performance at SLMB school was better with an estimated mean pass rate of 89%. In 2005 and 2006, the pass rate was 100% for both sexes but fell to 72% in 2008. Similarly, the percentage of failures fell from 10% in 2004 to 0% in 2005 and 2006. However, the percentage of failures rose dramatically to 13% in 2007 and 28% in 2008

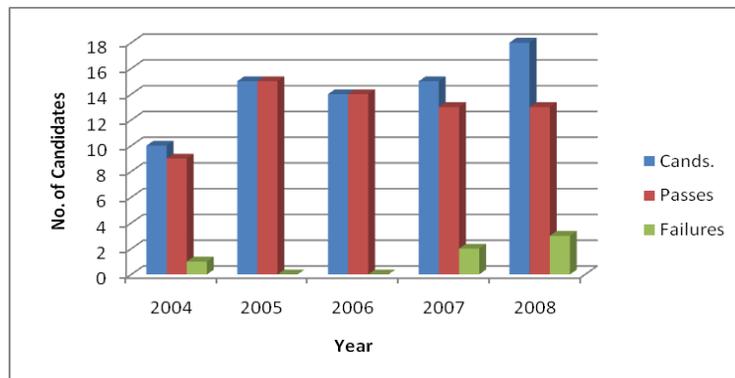
with more girls failing in both years (Table 45). While the performance was in general satisfactory, more pupils would have failed if the pass mark was 250 for each year.

**Table 45: SLMB School: Summary of NPSE Results by Gender and Year**

Year	No. of Candidates			No. of Passes				No. of Failures			
	<i>M</i>	<i>F</i>	<i>Total</i>	<i>M</i>	<i>F</i>	<i>Total</i>	%	<i>M</i>	<i>F</i>	<i>Total</i>	%
2004	7	3	10	7	2	9	90	0	1	1	10
2005	10	5	15	10	5	15	100	0	0	0	0
2006	11	3	14	11	3	14	100	0	0	0	0
2007	11	4	15	10	3	13	87	1	1	2	13
2008	13	5	18	10	3	13	72	3	2	5	28
Total	52	20	72	48	16	64	89%	4	4	8	11%

Source: WAEC, 2008

The distribution of passes and failures over a five year period is more explicit in Figure 18 below.



**Figure 18: Distribution of Passes and Failures by Year at SLMB School**

Moreover, the distribution of aggregate scores for each year follows the national trend.

A greater proportion of the scores were skewed towards the three lower score-sets (Table 46).

In 2004, 80% scored aggregates within 230-279 compared to 57% in 2006. During the period under study, no candidate scored above 329; the highest aggregate score was 306 scored in 2005.

Table 46: Distribution of Aggregate Scores by Year and Score-set at SLMB School

<b>Score-set</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
< 229	2	0	0	2	5
230-279	8	4	8	11	13
280-329	0	11	6	2	0
330-379	0	0	0	0	0
380-429	0	0	0	0	0
430-500	0	0	0	0	0
<b>Total</b>	10	15	14	15	15
<b>Mean Agg.</b>	253	288	273	247	249
<b>Max Agg.</b>	266	306	298	282	279
<b>Min Agg.</b>	218	269	238	216	216

Source: WAEC 2008

Further, a significant proportion of candidates scored the required pass mark for each year; however, performance in some subject areas was dismal. In 2004, only 10% of candidates scored above 50% in General Science; 20% in Verbal Aptitude; and 30% in English compared to 90% in Mathematics. In 2005, 100% of candidates scored above 50% in Mathematics, Quantitative Aptitude, and General Science, a spectacular achievement. From the data, the mean scores in Mathematics rose steadily from 52% in 2004 to 63% in 2006 before declining to 45% in 2008. Similarly, the maximum scores in Mathematics rose from 57% in 2004 to 67% in 2006. In English, the maximum scores increased from one year to the next reaching 69% in 2008. Generally, performance in Mathematics and English was relatively better than for either SDA or REC primary schools in Waterloo. Moreover, the mean scores in General Science, Quantitative and Verbal Aptitude were far more encouraging considering the capacity of the staff. However, the mean scores in General Science declined steadily to 46% in 2008 after attaining an all time high of 63% in 2006. In Quantitative Aptitude, the mean scores were above 50% for all years except in 2006. Throughout the period, the lowest minimum score in a subject was 34% which was recorded in Verbal Aptitude in 2006. The data also shows significant fluctuations in the range of scores from year to the next in all five subjects.

Furthermore, there were no significant differences in the performance of boys and girls during the period under study. In terms of performance in individual subject areas, a boy and girl scored the maximum scores in Mathematics in 2005 (63%), and 2006 (67%). In English, boys scored the maximum scores in all years except 2004. Similarly, boys scored better in General Science in all years except in 2008. Above all, boys scored the highest aggregates from 2004 to 2006 whilst girls scored the highest in 2007 and 2008. Finally, the data showed that there were improvements in pupil performance at the NPSE during the period of implementation of REBEP. However, there was no evidence linking such performance to REBEP intervention or to any specific inputs.

#### **RC Primary School- Mathuraneh**

Roman Catholic primary school- Mathuraneh was established in the early 1990s as an outreach post for Catholic missionaries in Kambia town. The school was housed in a make-shift and dilapidated structure built by the community with support from the mission. Mathuraneh is a small village with a population of less than 1,000 located about 6 miles off the main road to Kambia town. The school was destroyed during the civil war after which classes were held in temporary shelters provided by UNICEF. Like Romacca village, the main economic activity in Mathuraneh is agriculture carried out mainly for consumption and exchange. The bulk of the population is categorized as poor according to the Sierra Leone PRSP (2005) report. Project work commenced in 2004 with the construction of a six classroom block outside the village.

##### **a) RC Mathuraneh School Demographics**

Records obtained from the school indicate an enrolment of 233 pupils (140 boys and 93 girls); an increase of about 40% following the construction and completion of the new classroom block in 2005. The school is staffed by 6 male teachers with a pupil/teacher ratio of 39:1. Only 3 teachers have teaching certificates while the rest are uncertified and unqualified. One teacher is

not on the payroll even though certified with 8 years teaching experience. The head teacher and one senior teacher have 20 years teaching experiences while the three untrained and unqualified teachers have 3 years teaching experiences.

b) School Environment and Infrastructure

Before REBEP intervention in 2004, classes were held in a dilapidated mud brick house with 3 rooms. Furniture for both teachers and pupils was inadequate with pupils often squatting on dusty classroom floors. The construction of the 6 classroom block with office space and a staff quarter by REBEP brought about a huge sigh of relief for teachers, the pupils, and the community at large. There are two toilets with 3 rooms each for males and females, indicating some sensitivity to girl friendly concerns in school construction (Table 47). Also, construction of a well with hand pump started but remained incomplete at the time of the visit. The inputs also included the supply of 94 sets of desks and benches for pupils. However, furniture for teachers had still not been delivered in January 2009 after the building was officially opened.

Table 47: School Structure and Infrastructure at RC School-Mathuraneh

Item	Before Intervention	REBEP Intervention	Total
No. of Buildings	1	1	1
No. of Classrooms	3	6	6
School Toilets	0	1 (6 rooms)	1
Water & Sanitation Facilities	0	1	1-Not functional
State of Buildings	Unsatisfactory	Excellent condition	Excellent
Teachers' Furniture			
• One set per Teacher	None	None for teachers	None
Pupils/Furniture			
• No. of Desks	Few	94	adequate
• No. of Chairs/benches	Few	94	adequate
Type of Civil Works			
• Construction-Staff Housing	None	Construction	1



Figure 19: RC Primary School-Mathuraneh-Newly built with REBEP funds.



Figure 20: Water Well under Construction at RC School-Mathuraneh-January 2009

The school did not have a library while the housing unit for teachers was incomplete after almost five years of project activities.

#### c) Availability of Teaching and Learning Materials

RC Mathuraneh was supplied with 105 textbooks, mainly Mathematics and Social Studies, by the Ministry of Education between 2002 and 2004. While the civil works was completed in 2005 and some furniture was delivered, the school records indicated that core textbook supplies were only received on June 21, 2008. Table 48 is a breakdown of learning materials supplied through ActionAid (SL). Although textbooks were supplied late, the textbook per pupil ratio was 1:1 for English, Mathematics and Social Studies. There were no records of

supplies of teaching aids, notebooks, teachers' guides, schemes of work, and school registers. In the classes observed, some pupils had few notebooks and pens/pencils but they were clearly inadequate.

**Table 48: Teaching and Learning Resources supplied to RC School-Mathuraneh**

	BEFORE		REBEP INPUTS		
<b>Textbooks</b>	<b>2002-2004</b>	<b>2005</b>	<b>2006</b>	<b>2008</b>	<b>Total In Stock</b>
English	5	0	0	280	280
Mathematics	50	0	0	280	280
Science	0	0	0	148	148
Social Studies	50	0	0	235	235
Subtotal	<b>105</b>	<b>0</b>	<b>0</b>	<b>943</b>	<b>943</b>
<b>Learning Materials</b>					
Pupils	Inadequate	Inadequate	Inadequate	Inadequate	Not verified
Notebooks					
Pens/pencils	0	0	0	0	0
Teaching Aids	0	0	0	0	0
Scheme of Work	0	0	0	0	0
*Lesson notes	0	0	0	0	0
<b>Other Resources</b>		<b>BEFORE</b>		<b>REBEP INPUTS</b>	
Head Teacher's Office		0		1	
Library		0		0	
Resource Center		0		0	
School Garden		Yes		0	
Staff Quarters		0		1	

The school had no library or book cabinet. The textbooks supplied to the school were either kept on the floor or on a desk in a storeroom adjacent to the head teacher's office. The office was hardly used by the head teacher as it did not have furniture. The head reportedly approached the contractors and the DEO about the lack of teachers' furniture and the incomplete water well but no action had been taken. The main teaching materials were white chalk and blackboards in each classroom. Teachers also improvised exercise books for school registers and lesson plans.

d) School Management and Leadership

RC school Mathuraneh is managed by the Kambia catholic mission with the parish priest performing management responsibilities. The head teacher carried out day-to-day administrative tasks and supervision of teachers. The school has a functioning SMC although

none of the members benefitted from REBEP's orientation program. According to the head, the SMC had become somewhat involved in the school's affairs such as helping to raise funds in support of a teacher that was not on government payroll. The SMC served in an advisory capacity as all key decisions are subject to the approval of the manager. There was a functioning PTA which met at least twice every term to discuss issues of concern to the school. The SMC recommended the hiring of teachers, staff housing, and monitored the school's budget. The PTA supported the schools infrastructure needs through cash contributions and labor.

According to the head teacher, the community had been very supportive of the school, mostly contributing ideas during PTA meetings. However, there has not been any change in the level of involvement of the PTA since REBEP intervention in 2004. The head teacher chaired staff meetings, paid salaries and made the necessary returns to the manager. In addition, the head attended meetings convened by either the manager/parish priest or the district education office. The head reported assuming office in September 2008 after following his transfer from another school.

#### e) Supervision and Staff Development

Supervisors of schools from the district education office (DEO) visited the school twice in the first term to basically collect data and monitor teachers. Such monitoring visits were restricted to casual inspection of school registers rather than providing supportive supervision to teachers in classrooms. Moreover, supervision of teachers was on occasions carried out by the head teacher. Although newly appointed, the head teacher observed all of his staff and felt satisfied with their performance. He reported overseeing the preparation of lesson forecasts and lesson notes by teachers and ensuring proper record keeping such as closing attendance registers on a weekly basis. However, a teacher in class six was observed teaching a lesson in Social Studies without lesson notes or any lesson forecast.

- f) Instructional Practices and Classroom Management
- l) Classroom Environment

In general, the number of pupils per teacher was relatively small, estimated at 39:1. The classrooms were spacious allowing easy movement of both teacher and pupils. There were only 16 pupils in Grade 6 (10 boys and 6 girls) during the visit with the desks and benches organized in two columns and six rows. The teacher had no furniture and had to use pupil’s furniture. There were no displays of posters or charts on the walls of classrooms. Whilst supplies of core textbooks had been delivered to the school, the Grade 6 teacher did not use any textbook to teach the lesson in Social Studies. Some pupils had torn exercise books, and often a pen or pencil. Finally, the teacher could not produce any lesson notes, forecasts, and teachers’ guides (Table 49).

Table 49: Availability of Teaching/Learning Materials at RC School-Mathuraneh

Teachers Guide	Availability		Adequacy	
	Available	Unavailable	Adequate	Inadequate
Mathematics		✓		N/A
English		✓		N/A
Social studies		✓		N/A
Science		✓		N/A
<b>Core Textbooks</b>				
Mathematics	✓		✓	
English	✓		✓	
Social studies	✓		✓	
Science	✓		✓	
<b>Learning Materials</b>				
Blackboard	✓		✓	
Chalk	✓			✓
Teaching Aids		✓		N/A
Ruler		✓		N/A
Pens/Pupils	✓			✓
Pencils	✓			✓
Erasers	✓			✓
Reference Books		✓		N/A
Reading Books		✓		N/A

*N/A: Not Applicable*

II) Pedagogical Support

The provision of pedagogical support to teachers in the school has not been encouraging. While the head teacher provided help in the form of in-service training at least

once a month, officials of the district education office offered little or no support in terms of training, supervision and the supply of relevant teaching and learning materials. The teacher in grade six reported being observed only once in the first term while peer-to-peer support to improve on his teaching skills had never happened since employed in the school. Also, no facilitator or trainer from REBEP had offered any pedagogical help so far. Much was also not forthcoming from the community as the literacy rate is less than 20%. The school had no mentor or specialized teachers and all teachers look up to the head for support and suggestions from time to time and often to review lesson notes. According to the teacher, the last Mathematics, English, and Social Studies lesson notes were submitted to the head in December 2008.

### III) Instructional and Classroom Management Practices

Teachers in the school were mostly used question and answer techniques, chalk, and talk to deliver lessons as evident by the teacher's response to a questionnaire (Table 50). Throughout the lesson, (Social Studies-provinces and districts in Sierra Leone), the teacher lectured to the whole class as the method of choice. There were neither maps of Sierra Leone nor any prescribed textbooks. The 40 minutes lesson was totally abstract to the point that some kids lost concentration towards the middle even though this appeared to be a repeat lesson. Table 49 summarizes the teacher's responses which were inconsistent with our observations. Much to the surprise of the team, the teacher's mastery of the subject matter was shallow such that he could not name the three districts that made up the Eastern province of Sierra Leone.

**Table 50: Types and Frequency of Methods used in Instruction -RC School Mathuraneh**

	<u>Never</u> (0)	<u>1-3</u> <u>times/</u> <u>term/(1)</u>	<u>1-3 times/</u> <u>month/</u> <u>(2)</u>	<u>Once/</u> <u>week</u> <u>(3)</u>	<u>2-3 times</u> <u>per week</u> <u>(4)</u>	<u>Daily</u> <u>(5)</u>
Lecture to the whole class						✓
Pupils copy from b/board						✓
Pupils use textbooks						✓
Question pupils' comprehension						✓
Encourage pupil questions						✓
Role play				✓		
Pupils work in small groups				✓		
Pupils work in pairs				✓		
Singing						✓
Review pupil homework						✓
Pupils write assignments						✓
Administer exams or tests		✓				
Use teaching and learning aids						✓
Pupils use teaching/learning aids						✓

The teacher indicated that examinations or tests were normally given 1 to 3 times per term. Considering, an average of 9 subjects per week, assessments were not being carried out effectively. Table 51 is a summary of the team's observations.

**Table 51: Observations on Instructional Practices during Lesson at RC School**

<b>Instructional Practice</b>	<b>Teaching Activities Used</b>	<b>Comments</b>
Use of a variety of teaching Methods	Teacher uses one or two methods that did not involve learners.	Social Studies lesson taught through lecture, question and answer.
Use of materials by learners	Learners did not manipulate materials	Lesson entirely abstract
Use of Materials by teacher to enhance learning	Teacher did not use any material to enhance learning	No maps or textbooks used to enhance learning
Grouping of Learners	No grouping activity in class	Taught class as one big group
Critical and creative thinking activities	Main activity was talk and chalk; wrote on bb; learners listened and responded to questions	Poor blackboard management; wrote scantily.
Questioning Skills	Asked leading and/or simple recall questions.	Questions not distributed well and not directed at individuals.
Learners Asking Questions	Learners did not ask any questions	No opportunity for pupils to ask questions; learners disengaged
Teacher feedback to Learners	Gives feedback about correct responses only	Some positive feedback by teacher; Ignored wrong answers
Use of Language to Improve Learner Understanding	Teacher integrated English, Krio, and Temne (home language) consistently	Used local language often; poor communication ability in English
Opportunities for Learners	Learners have no opportunity to participate	No effort made to encourage participation by learners

*Adapted From IEQ II (USAID) Survey, Malawi 1996*

Other instructional aspects were the missed opportunities to utilize maps and other teaching aids to explain the concept being taught. The lesson lacked any logical sequence and

learning objectives or outcomes. Although the teacher attempted to capture the attention of pupils through voice variations and persistent questioning, there was a clear lack of interest on the part of pupils. The rapt attention of the pupils was perhaps due more to our presence than any seeming eagerness to learn about the subject matter. The conclusion was equally poor.

#### IV) Teachers' Time on Task

The lesson that was observed lasted more than the scheduled time of 40 minutes with the teacher repeating talking points over and over. Such time may not be unique to this single lesson or teacher. As a catholic school, time is taken off for all traditional Christian holidays, three Muslim holidays per year, and for Independence Day. As a school in a remote setting, classes do not commence until at least after a week of the re-opening of school each term. During the visit, we arrived barely in time for lunch break at 11.30am on a Friday and were shocked to learn that the head teacher had instructed the pupils to go home for the day. It was our presence that sent the teachers into frenzy to call back the kids most of whom were already heading home. Moreover, while responding to questions asked of the teacher assigned to grade six, it emerged that he had missed at least 8 days of school last term. The teacher was not on the payroll for the last two years and merely survived on a monthly stipend of about fifty thousand Leones, the equivalent of \$18 dollars usually contributed by parents. He had to look for other sources to augment his meager income even if this meant being absent from school for a day or two or coming late to school.

#### V) Conditions of Service

The case of the grade six teachers not on the payroll is a classic example of an age-old problem with the teaching profession in Sierra Leone. The further teachers were away from the capital or headquarters, the more endemic was the problem. This teacher was certified in 2007 through the distance learning program as a complement to pre-service teacher training.

However, the moratorium on new teacher recruitment stipulated by the IMF only allowed for replacement of teachers who left schools. In addition, the process to approve replacement is a nightmare and can last forever causing considerable disaffection amongst teachers and low morale in general. Further, salary levels were low and cannot support the ever increasing cost of living. While many may be committed to the profession, there was little or no motivation to serve as teachers; hence teachers' effectiveness was being seriously compromised over the years. Asked to explain whether teachers were being effectively supervised considering that a lesson was taught without lesson notes, the head teacher explained the situation this way:

This teacher has been teaching for two years without salary; so I sometimes find it hard to take disciplinary action against him since he is almost like a volunteer. The problem could be that he has no money to buy exercise books to prepare his notes since the school did not provide one. The school could not buy books because the subsidy for last term has still not been paid by government which is the money often used for buying learning materials.

Finally, opportunities for staff development and promotion of teachers were few for now. Since last school year, only one teacher was trained by REBEP focusing on teaching methods even though there were three untrained and unqualified teachers.

#### **Summary of REBEP Intervention at RC School Mathuraneh**

RC Mathuraneh received substantial inputs from REBEP considering per pupil expenditure (Table 52). Inputs included a 6 classroom block with office space, well with hand pump and textbooks. An examination of the total expenditures per item vividly showed that the bulk of expenditures were utilized in construction services. Table 53 indicates that civil works constituted the major budget item, accounting for 79.6% of the total expenditure.

Table 52: Summary of REBEP Interventions at RC School-Mathuraneh

Item	Specific intervention	Year	Status
1	<b>Civil Works</b> Construction 1 building block (6 classrooms),	2006	Completed
	Construction of Well with hand pump- 1		
	Construction of Staff Housing - 1		Incomplete
2	<b>Goods:</b> Supply of Furniture- <ul style="list-style-type: none"> <li>• 94 Desks for pupils</li> <li>• 94 benches for pupils</li> <li>• Teachers Desk/Chair</li> <li>• Head Teacher’s Desk/Chair</li> </ul>	2006	Delivered Delivered Not Delivered Not Delivered
3	<b>Teacher Training – 1</b> (Teaching Methods)	2006	Incomplete
4	<b>SMC:</b> Set up/Training of SMC	2005	Incomplete
5	<b>Textbooks:</b> a) Supply of Core Texts English- 5 Mathematics-50 Science -0 Social Studies -50 <b>Total:105</b>	2004	Delivered
	b) Supply of Core Texts English- 280 Mathematics-280 Science -148 Social Studies -235 <b>Total: 943</b>	2008	Delivered

The supply of furniture combined with civil works totaled an estimated 88% of the funds allocated to the school whilst supply of textbooks accounted for nearly 11.7%. Further, Figure 21 shows that teacher training and SMC orientation accounted for less than 0% of the total project funds.

Table 53: Estimated Costs and Expenditure per Item at RC School- Mathuraneh

Item	Quantity	Unit Cost (Le)	Total Budget	Percentage (%)
Civil Works	1	105,000,000	<b>105,000,000</b>	79.6
Goods				
• Pupils	94	105,000	9,870,000	
• Desk/Bench	8	105,000	840,000	
• Teachers	1	131,000	131,000	
• Head Teacher	<b>Sub-Total:</b>		<b>10,841,000</b>	8.2
Textbooks	1048	14,700	<b>15,405,600</b>	11.7
Teacher Training				
• Training	1	202,409	202,409	
• Guides	1	14,700	14,700	
	<b>Sub-Total:</b>		<b>217,109</b>	0.2
SMC Training	1	446,750	<b>446,750</b>	0.3
Source: REBEP, 2008		Total	<b>131,910,459</b>	<b>100</b>

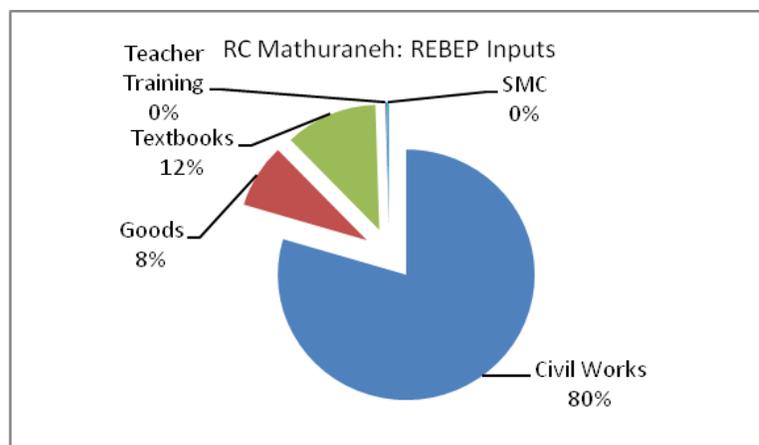


Figure 21: Distribution of REBEP Inputs at RC School-Mathuraneh

Further, the cost of training one SMC member was twice that for training a single teacher. Both training components together accounted for 0.5% of the total budget even though 50% of teachers were classified as untrained and unqualified.

#### Performance of RC School-Mathuraneh in the NPSE

Table 53 shows the performance of grade six pupils in the NPSE from 2005 to 2008. Data on performance in the previous two years were unavailable as pupils sat to the examination under a parent school.

Table 54: Summary of NPSE Results by Gender and Year- RC School Mathuraneh

Year	No. of Candidates			No. of Passes				No. of Failures			
	M	F	Total	M	F	Total	%	M	F	Total	%
2005	8	1	9	1	0	1	11	7	1	8	89
2006	7	4	11	7	4	11	100	0	0	0	0
2007	9	2	11	7	2	9	82	2	0	2	8
2008	13	0	13	13	0	13	100	0	0	0	0
<b>Total</b>	<b>37</b>	<b>7</b>	<b>44</b>	<b>28</b>	<b>6</b>	<b>34</b>	<b>77%</b>	<b>9</b>	<b>1</b>	<b>10</b>	<b>23%</b>

According to the data, an estimated 77% of the total candidates for the period passed the NPSE although the proportion of passes varied from year to year. In 2005, only 11% of candidates scored the required pass mark compared to 89% that failed to score the required 230 pass mark. In 2006 and 2008, performance in the NPSE was 100% indicating that no failures

were recorded for those years. The proportion of passes, however, fell slightly to 82% in 2007. On the whole, performance in the NPSE was excellent since 2005 and had improved consistently since REBEP intervention (Figure 22). While the performance may seem very satisfactory, the aggregates scored in general were relatively low and skewed towards the two lowest score-sets (Table 54). The aggregates scores also varied from year to year during the period under study.

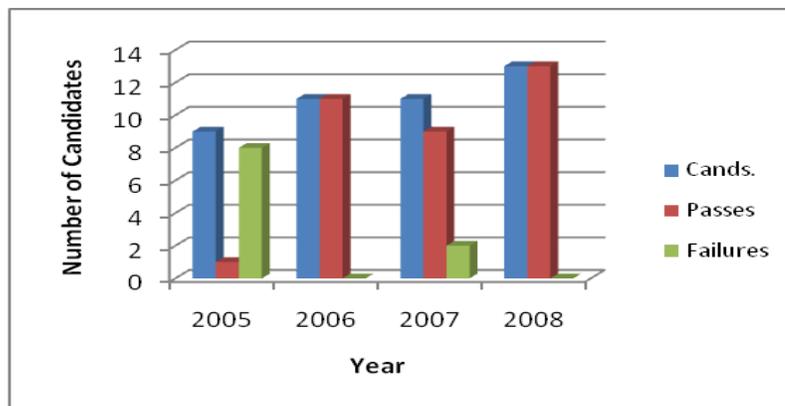


Figure 22: Distribution of Passes and Failures by Year at RC School-Mathuraneh

An estimated 77.3% of the 44 candidates who took the NPSE in the last four years at RC Mathuraneh scored aggregates within 230-279 while 22.7% scored aggregates below 229. In 2006 and 2008, the proportion of candidates scoring within the range 230-279 was 100% while in 2007, it was 82%. In other words, the performance in the school did not vary significantly from performance at the national level.

Table 55: Distribution of Aggregate Scores by Year and Score-set-RC Mathuraneh

Score-set	2005	2006	2007	2008
< 229	8	0	2	0
230-279	1	11	9	13
280-329	0	0	0	0
330-379	0	0	0	0
380-429	0	0	0	0
430-500	0	0	0	0
<b>Total</b>	9	11	11	13
<b>Mean Agg.</b>	208	258	245	256
<b>Max Agg</b>	259	276	270	279
<b>Min Agg</b>	179	231	221	235

Moreover, the mean aggregate scores were relatively low, varying from 208 in 2005, to 258 in 2006 and 256 in 2008. Such low aggregates indicate low levels of performance by candidates each year in individual subjects as reflected in the mean scores. In 2005, no candidate scored 50 and above in English, Quantitative Aptitude and Verbal Aptitude with mean scores at 43%, 41% and 40% respectively. In both Mathematics and Science, only one candidate scored above 50% in 2005. In 2006, performance improved in Mathematics, English, and Science with mean scores at 56%, 51% and 61% respectively. However, mean scores in Quantitative Aptitude and Verbal Aptitude remained almost unchanged and below 50%. Moreover, in 2006, 82% of the total number of candidates scored at least 50 or more in Mathematics compared to 100% in General Science.

Nevertheless, in 2008, 92% of the 13 candidates failed to score 50% or more in Mathematics with the exception of only one candidate compared to 46% in General Science. Also, an estimated 85% of candidates scored 50% or more in English. That year, the highest individual score ever recorded by any candidate in any subject in the school's history was 68% in English. Above all, there was very little difference in performance between boys and girls. The highest aggregate scored by a boy for the period was 279 compared to 266 for girls. In Mathematics, a girl scored the highest grade, 54% in 2005 while in subsequent years the highest grades were scored by boys. For two consecutive years, 2005 and 2006, girls scored the highest grades in English. In the two subsequent years, boys topped the list of best scores in English.

In summary, the performance of pupils from RC Mathuraneh was encouraging although the mean aggregate scores were low. Again, the findings indicate that while the intervention by REBEP resulted in increased enrollment across targeted schools because of improved infrastructure, the same cannot be said in terms of its effect on school performance in the NPSE. Thus, the next case study sets out to examine one school that had much in common with the

five project schools but received virtually no tangible inputs from the REBEP or support from the Ministry of Education- RC School, Police Barracks-Kambia.

### **RC Primary School, Police Barracks-Kambia**

The Roman Catholic primary school, Police Barracks, Kambia town was established by the catholic mission to cater to the educational needs of children of parishioners, more especially the children of police officers in the nearby barracks. The school was built with funds provided by the church and parishioners in 1972 starting off with a single building made up of 6 classrooms and office space. This main building was rehabilitated in 1995 but was vandalized during the war. One more building was added in 2003 to accommodate the increasing student enrollment following the end of the war in 2002. Its location at the crossroads of major road networks leading to and passing through Kambia gives it added advantage in terms of easy access. Unlike other schools in the case studies, RC school, Police Barracks did not benefit from REBEP support even though the school structures and infrastructure were dilapidated. The school is also under-resourced in several aspects-textbooks, learning materials, and learning environment- but with a relatively high enrollment compared to either SLMB school, Romacca or RC primary School, Mathuraneh.

#### **a) RC School-Police Barracks Demographics**

RC school-Police Barracks had an enrollment of 668 pupils (361 boys and 307 girls) and 13 teachers (6 males and 7 females). For administrative purposes, the school was divided into a lower division and an upper division, each with one head teacher although they worked as a single unit in terms of reporting. The pupil-teacher ratio was 51:1, but considerable variations existed between classes. Pupil-teacher ratios were much higher in the lower grades; 61:1 in class one compared to 49:1 in class six. Seven of the teachers were certified and considered highly qualified by Sierra Leone standards. Three teachers had Higher Teachers' Certificates (HTC-

primary) while four held Teachers' Certificates (TCs). Of the six uncertified teachers, five received pre-service training but were yet to be certified while one is untrained and unqualified (UU). With the exception of the UU teacher who had just one year teaching experience, all others had taught for at least 5 years.

b) School Environment and Infrastructure

The physical structures at the RC primary school-Police Barracks were deplorable and could easily be classified as an unsafe environment for learning. In fact, the term deplorable is an understatement considering that the main building was last rehabilitated in 1995, some fourteen years ago. Classes measured about 18ft x 22ft and cracks could be seen on the dusty and mud ridden walls and classroom floors. The classrooms had no ceilings thereby exposing students and teachers to direct heat waves from the zinc roofing. At the time of my visit at about 1.00pm in the afternoon, temperatures had risen to over 95 degrees Fahrenheit, leaving both teachers and pupils sweating profusely from the hot humid air. The main building was poorly ventilated compared to the block built in 2003. According to school records, the International Refugee Committee (IRC) last supplied 175 sets of desks and benches to the school in 2004 for use by pupils, some of which few teachers converted for their own use. Classes were generally overcrowded with pupils seating in rows of three with little space between columns of benches (Figure 23). Moreover, sanitary facilities were damaged and not suitable for use by students and teachers and there was no source of water supply. Furthermore, the school had neither a library nor a storage facility (Table 56) as pupils cart textbooks daily to the head teacher's home for over night storage.

Table 56: School Structures and Infrastructure at RC School, Police Barracks

Item	Before Intervention	REBEP Intervention	Total
No. of Buildings	2	0	2
No. of Classrooms	10	0	10
School Toilets	1 (4 holes, 1 - Teachers)	0	1
Water & Sanitation Facilities	0	0	0
State of Buildings	Unsatisfactory	0	In disrepair
Teachers' Furniture-Adequacy			
• One set per Teacher	Inadequate	None	None
Pupils/Furniture			
• No. of Desks	175	0	Inadequate
• No. of Chairs/benches	175	0	Inadequate
Type of Civil Works			
• Rehabilitation	1	0	1
• Reconstruction	0	0	0
• Construction	1	0	1



Figure 23: Inside view of Grade 6 Classroom at RC School, Police Barracks

c) Availability of Teaching and Learning Materials

RC primary school was under-resourced and did not benefit from any meaningful intervention from the government and the catholic mission. According to school records, the last supply of learning materials by the Ministry of Education was in 2005 and in 2007, totaling 80 and 120 textbooks respectively. Almost half of these supplies were either missing or damaged beyond use by pupils. In 2008, ActionAid (SL) donated some textbooks to the head teacher of the lower division as part of their Girl Child Education initiative. The supplies were in

recognition of the personal efforts of the head teacher for her involvement with the Girl Child Education program. It must be acknowledged, however, that these supplies were probably diverted from the supplies that were to be distributed to REBEP supported schools in Kambia district. Furthermore, there was only one copy of the Harmonized Syllabus for the use of 12 teachers thus making it difficult for teachers to prepare lesson notes.

Table 57: Teaching and Learning Resources supplied to RC School-Police Barracks

Textbooks	Other Sources				REBEP
	2002-2004	2005	2007	2008 (ActionAid)	Total in Stock
English	0	20	30	50	N/A
Mathematics	0	20	30	50	N/A
Science	0	20	30	40	N/A
Social Studies	0	20	30	55	N/A
Subtotal	Nil	80	120	Nil	N/A
Pupils Notebooks	Inadequate	Inadequate	0	0	0
Pens/pencils	0	0	0	0	0
Teaching Aids	0	0	0	0	0
Scheme of Work	0	0	0	0	0
Lesson notes	0	0	0	0	0
<b>Other Resources</b>	<b>BEFORE</b>		<b>REBEP INPUTS</b>		
Head Teacher's Office	0		0		
Library	0		0		
Resource Center	0		0		
School Garden	Yes		0		
Staff Quarters	0		0		

*\*One Classroom space was converted into an office for use by the 2 head teachers.*

#### d) School Management and Leadership

The Catholic priest in Kambia town was charged with the responsibility to manage the school including recruiting, postings, transfers, and promotion of teachers. The manager also controlled fees subsidies approved by government. All decisions relating to budgetary expenditures, infrastructure development, and teacher discipline were subject to the approval of the manager and parish priest. The school had two head teachers, each with responsibility to supervise teachers, ensure discipline, and carry out administrative responsibilities. These administrative tasks included checking registers to monitor enrollment, completing pay

vouchers and returns, writing reports, and collecting data for the Ministry of Education. The school also had a SMC and a functioning PTA. The SMC served in an advisory role on matters relating to staff discipline, school budget, and curriculum matters. The PTA mainly supported efforts initiated by the school such as helping raise funds to pay incentives to teachers not on the pay roll. The community also contributed ideas during PTA meetings for improving standards and the quality of learning.

e) Supervision and Staff Development

In the past twelve months, supervision of teachers by the Ministry of Education and the head teachers had not been effective for various reasons. One head teacher summarized it thus:

Since I was appointed two years ago as head teacher, the inspectors and supervisors only visit our schools to either do verification of teachers or collect enrollment data, at the end of which we help with their transportation. I have not carried out any training of the teachers because of time. No teacher wants to come during weekends or cancel classes to carry out training. I do, however, observe some of the less experienced teachers and offer advice when necessary.

This perhaps was the most explicit and honest pronouncement on supervision and staff development made by an official in a public school. Officials from the district education office visited the school three times since the academic year started to collect data, monitor teachers, and disseminate information. The senior head teacher was appointed in 2008 and had not benefitted from any in-service workshop while the associate head attended a gender training workshop organized by ActionAid (SL) in November 2008, the first training in six years. The deputy head teacher reported conducting in-service trainings once every year; the last was in September 2008 focusing on good record keeping. In addition, the associate head teacher recounted the following experiences supervising teachers in the school:

I'm always running after teachers to prepare lesson notes, but I realized some can't even afford to buy exercise books or pens to do their lessons. The subsidy from government is not paid on time and so we find it difficult to provide stationery for the school or carry out any major repairs. Should I hold teachers who default on preparing

lesson notes and schemes of work accountable when some of them have not been paid salaries for almost two years?

These concerns are all too familiar in the schools already studied in this chapter.

Considering the acute lack of learning materials and resources in the school, it should not be surprising to see that effective teaching had not been going by teachers in the classrooms.

f) Instructional Practices and Classroom Management

Data was collected on teachers' instructional practice which is analyzed under five headings:

l) Classroom Environment

Figure 24 below is a typical classroom environment at the RC primary school. Besides the classroom being dusty, humid, and without posters on the walls, it only measured 12ft x 20ft. A total of 48 pupils were assigned to the class; hence overcrowded.



Figure 24: Overcrowded Classroom during Reading Lesson at RC school-Police Barracks

Because of the congested space, the teacher's movement was restricted to the front of the class as we observed him teach a lesson on Group Reading. Both boys and girls shared seating space and mixed freely during the lesson. The desks and benches were arranged in three columns and five rows with an average of three pupils per set of desk and bench. The pupils paid rapt attention, perhaps as a result of our presence but it was clear some were tired and bored and could be seen dozing with sleep. Earlier, the teacher distributed the Language Arts textbook

for use in a ratio of one textbook per two pupils. The teacher had no lesson plans or forecasts and a teacher's guides for the lesson being taught. Across the back wall was another class in session apparently taking the same lesson as we could hear the pupils repeat the text in chorus after the teacher. The group reading exercise ultimately turned into a melodious cacophony of sounds from both classes. Clearly, it was a battle between the teachers but the greatest losers were the children who were caught up in the ensuing confusion.

## II) Pedagogical Support

In response to a question of sources and types of support received, the grade 6 teacher mentioned that no support whatsoever had been provided by either the ministry of education, the district education office in Kambia town, or REBEP. The teacher relied upon the head teacher for support to improve his teaching quality and was observed twice by him since the academic year started. As part of their regular functions, teachers were required to submit lesson notes for review by the head teacher before teaching the lessons. However, teachers hardly met this weekly review requirement; hence head teachers did not offer such support on a regular and consistent basis. The grade 6 teacher, who was not on the payroll of the school since graduation from college in 2007, last prepared lesson notes in September 2008. Finally, the teacher reported that he had not benefited from any in-service training programs in the past three years. The school had no mentor teachers and peer-to-peer support was rare and uncommon.

## III) Instructional and Classroom Management Practices

The class environment was far from ideal for conducting lessons because of limited space. As a result, movement by both teachers and the pupils was severely constrained during the lesson on Group Reading. Even more appalling was the fact that the lesson that could have been taught in a lively manner ended up as a reading exercise for the teacher. The lesson

started off with the distribution of textbooks to groups of three pupils followed by instructions to open to Unit Nine. The pupils never read from the text; they were asked to repeat sentences in chorus as the teacher read along. The teacher often paced in between columns of desks but concentrated on the middle row. Pupil at the back of the classroom where I sat to observe the class were totally ignored and could be heard mimicking sentences read by the teacher. One boy by whom I sat could be seen sleeping and was captured by the camera of one of my assistants. As the lesson progressed, the teacher wrote what he described as ‘new words’-catching, pigeons, rich, indeed, foolish, angry, piece, promised, and shook. No attempt was made to either explain these words or instruct pupils to use each in sentences. But for the chorus of voices lead by the teacher, which perhaps helped me from dozing off to sleep, no other activity was carried out during the forty minutes lesson. The responses to the questionnaire which was administered to the teacher (Table 58) were similar to those in the previous case studies. It indicates that such instructional practices were common amongst teachers.

Table 58: Types and Frequency of Methods used in Instruction at RC School Police Barracks

	<u>Never</u> (0)	<u>1-3 times/ term</u> (1)	<u>1-3 times/ month</u> (2)	<u>Once/ week</u> (3)	<u>2-3 times per week</u> (4)	<u>Daily</u> (5)
Lecture to the whole class						✓
Pupils copy from b/board						✓
Pupils use textbooks				✓		
Question pupils' comprehension						✓
Encourage pupil questions						✓
Role play					✓	
Pupils work in small groups with group leader	✓					
Pupils work in pairs				✓		
Singing					✓	
Review pupil homework					✓	
Pupils write assignments					✓	
Administer exams or tests		✓				
Use teaching and learning aids you made yourself			✓			
Pupils use teaching and learning aids you/they made					✓	

*Adapted from IEQ II (USAID) Survey, Malawi 1996.*

According to the table, lectures, pupils copying notes from the blackboard, question and answer were daily practices of most teachers if not the only methods used for instructions. Lessons were devoid of activities and were teacher-centered as demonstrated by the teacher. Group work whether in pairs or large groups were rare and mostly used to share textbooks during reading lessons.

Even more alarming is the fact that assessments in the form of examinations and tests were reportedly conducted not more than three times in a term. When matched against an average of 9 subjects taught per week plus 5 others taken in preparation for the NPSE, this boils down to virtually no assessment for most subjects. Nevertheless, our observations during the lesson were different (Table 59). By the end of the lesson, it was obvious that the teacher either did not prepare well to teach the lesson or simply lacked the methodological skills to teach group reading. Pupil participation was limited to parroting sentences read by the teacher who did not bother to evaluate the lesson to assess pupils' comprehension and understating. The lesson ended almost abruptly at the sound of the school bell. The associate head teacher underscored the poor teaching ability of teachers in the school with the following remarks:

Most of the teachers are trained and experienced; but they lack basic materials to teach and less motivated. To be honest, I'm not impressed with the teachers; some use the local language to teach since they cannot communicate well in English.

Table 59: Instructional Practices during Classroom Observation at RC School-Police

<b>Instructional Practice</b>	<b>Teaching Activities Used</b>	<b>Comments</b>
Use of a variety of teaching Methods	Teacher uses one or two methods that involved learners.	Group reading; questions and chorus answers.
Use of materials by learners	Some learners did manipulate materials	Pupils with textbooks read texts in chorus while others listened
Use of Materials by teacher to enhance learning	Teacher used two kinds of materials that did not enhance learning	Used textbook, chalk and blackboard inappropriately
Grouping of Learners	No grouping activity in class	Paired pupils to share textbook but taught class as one big group
Critical and creative thinking activities	Teacher lectures, learners listen to teacher	Learners repeat passage read by teacher in chorus
Questioning Skills	Asks simple recall questions only or close-ended questions	Questions not distributed well, and not directed at specific individuals.
Learners Asking Questions	Learners did not ask any questions	Pupils did not ask questions; learners disengaged
Teacher feedback to Learners	Gives feedback about correct responses only	Some positive feedback by teacher; wrong answers ignored, unanswered
Use of Language to Improve Learner Understanding	Teacher integrated English, Krio, and Temne (home language) consistently	Used Krio and Temne often; could not communicate well in English
Opportunities for Learners	Learners had few opportunities to participate	Learners participation limited to parrot reading

*\*Adapted From IEQ II (USAID) Survey, Malawi 1996.*

#### IV) Teachers' Time on Task

The RC school- Police Barracks, like other primary schools, was subject to the same academic schedule developed by the Ministry of Education which takes into account public holidays. As a policy, public schools were required to strictly follow academic schedules each year and observe every official public holiday which cuts down school time. School time was also wasted as a result of decisions taken either by the head teacher or by individual teachers. In response to a question about the number of days the grade 6 teacher missed in the first term, he reported 5 days due to personal reasons and through sickness in addition to the official public holidays declared by government. During our visit to the school, it emerged that effective teaching started in the second week of the term as many pupils stayed away from school in the first week. In fact, the late start of effective teaching was cited as one reason why teachers had not commenced the preparation of lesson notes. Moreover, grade six teachers conducted 'extra lessons' for cash after school to prepare for the NPSE. As a result, less effective teaching occurs during normal school hours as the focus was more on the extra lessons. Pupils who could not

afford to pay for such lessons ultimately lost out. Other common practices contributing to the reduction of school and teachers' time on task was chronic absenteeism and punctuality at school.

#### V) Conditions of Service

Teachers at the RC Police Barracks were subject to the conditions of service for teachers jointly developed by the Teachers' Commission and the Sierra Leone Teachers' Union (SLTU). The SLTU is an independent entity representing an estimated 30,000 teachers from primary schools, junior and senior secondary schools. The last agreement between the SLTU and the government dates back to 1995 although the conditions of service for teachers were revised from time to time. In a report prepared by UNESCO (2003), it notes that:

The average salary cost for all primary school teachers (which includes allowances) was 138,000 Leones per month (US \$50) in late 2003 (UNESCO).

This average has changed very little over the last six years; in reality the value of the Leone in the last two years has depreciated while the cost of living has risen over 200%. In a rather sad twist of events, we were informed that the class six teacher only receives a stipend of fifty thousand Leones from funds provided by the PTA and the community which is equivalent to about \$18 (October 2009). Above all, the teacher has seven years teaching experience and graduated in 2007 with a teachers' certificate (TC). Most of the teachers have never been promoted since joining the teaching profession. The frustrated associate head teacher summed it up thus:

The teachers are also less motivated because the salaries are far below the cost of living here as Kambia is a market center where goods are expensive. Almost every teacher sells goods in the school to raise some cash. In class, most teachers simply use chalk and talk during lessons; the traditional way of teaching which is not helpful to the children.

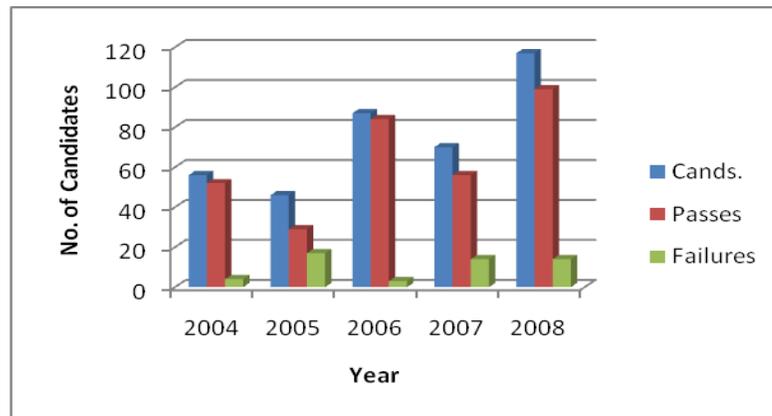
### Performance of RC School-Police Barracks in the NPSE

Data on the performance of pupils in the national examinations at the RC primary school was collected for five year period (2004-2008).

**Table 60: Summary of NPSE Results by Gender and Year-RC School Police Barracks**

Year	No. of Candidates			No. of Passes				No. of Failures			
	<i>M</i>	<i>F</i>	<i>Total</i>	<i>M</i>	<i>F</i>	<i>Total</i>	%	<i>M</i>	<i>F</i>	<i>Total</i>	%
2004	38	18	56	35	17	52	93	3	1	4	7
2005	31	15	46	23	6	29	63	8	9	17	37
2006	51	36	87	50	34	84	97	1	2	3	3
2007	46	24	70	38	18	56	80	8	6	14	20
2008	53	64	117	49	50	99	85	4	10	14	15
<b>Total</b>	<b>219</b>	<b>157</b>	<b>376</b>	<b>195</b>	<b>125</b>	<b>320</b>	<b>85</b>	<b>24</b>	<b>28</b>	<b>52</b>	<b>14</b>

From the data, 85% of the total number of 376 candidates who took the NPSE between 2004 and 2008 passed or met the required pass mark for each year. However, the proportion of candidates passing varied for each year with the highest proportion being 97% in 2006 followed by 93% in 2004. Except for 2005 when the proportion of failures reached a peak of 37%, pupils generally performed better throughout the period considering the limited resources at the disposal of teachers in the school. Figure 25 shows the distribution of passes and failures by year over a five year period.



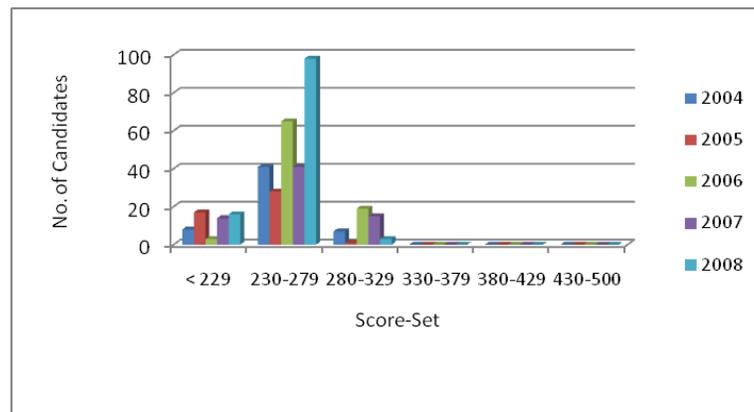
**Figure 25: Distribution of Passes and Failures by Year at RC School-Police Barracks**

From the graph, performance in the NPSE remained consistently high above 80% after 2005. Despite the strong showing, aggregates scores were skewed towards the lower score-sets.

**Table 61: Distribution of Aggregate Scores by Year and Score-set-RC Police Barracks**

Score Set	2004	2005	2006	2007	2008
< 229	8	17	3	14	16
230-279	41	28	65	41	98
280-329	7	1	19	15	3
330-379	0	0	0	0	0
380-429	0	0	0	0	0
430-500	0	0	0	0	0
<b>Total</b>	<b>56</b>	<b>46</b>	<b>87</b>	<b>70</b>	<b>117</b>
<b>Mean Agg.</b>	<b>255</b>	<b>233</b>	<b>266</b>	<b>253</b>	<b>244</b>
<b>Max Agg</b>	<b>298</b>	<b>293</b>	<b>329</b>	<b>312</b>	<b>306</b>
<b>Min Agg</b>	<b>141</b>	<b>135</b>	<b>206</b>	<b>134</b>	<b>132</b>

Figure 26 below depicts this situation in graphic terms. The above distribution shows that throughout the period under study, no single candidate registered aggregates above 329 and that a significant proportion, an estimated 73%, scored within the range 230-279. Moreover, a rather surprising outcome is that about 12% scored aggregates above 280 with one candidate scoring as high as 329 in 2006. In 2007 and 2008, one candidate each scored 312 and 306 respectively.



**Figure 26: Distribution of Aggregate Scores by Year and Score-set-RC School**

Moreover, the mean aggregate scores ranged from the lowest which were 233 in 2005 to the highest which was 266 in 2006. While the mean aggregates were consistently higher than the required pass mark for each year, performance in some subjects was not satisfactory. According to the data, the mean scores in Mathematics and English fell from 53% and 54% in 2004 to 47% and 48% in 2008 respectively. The highest maximum score recorded was 69% in 2007 compared to 68% in English. In General Science, only 3.5% of the total 56 candidates scored above 50% in 2004 compared to 15.2% of 46 candidates in 2005 and 71.4% of 70 candidates in 2007. Furthermore, the maximum scores in Quantitative Aptitudes ranged from 60% in 2004 to 75% in 2007 indicating continues improvement while the maximum scores in Verbal Aptitude ranged from 54% to 61% for the same years. In essence, there were variations in performance between years and various subjects.

Finally, a comparison of the performances of boys and girls showed very little difference in terms of aggregate scores or performance in individual subjects. In 2004, an estimated 7.5% of boys and 6.3% of girls failed to score the required pass mark (220) compared to 2% of boys and 5.5% of girls in 2006. Also in 2008, 92.4% of boys scored the required pass mark (230) compared to 84.3% of girls. In 2004, the highest score in Mathematics and English was 61% and 60% respectively both scored by a boy and a girl. However, 47% of boys failed to score 50% and above in both Mathematics and English compared to 33% of girls for both subjects in 2004. Similarly, an estimated 80% of boys scored 50% and above in Mathematics in 2006 compared to 100% of girls. That same year, 96% of the total 51 boys who took the NPSE scored 50% and above in Science compared to 97% of the 36 girls. Finally, performance in Quantitative and Verbal Aptitudes was similar. In 2008, for example, 55% of 53 boys scored 50% and above in Quantitative Aptitude compared to 31% of 64 girls. In Verbal Aptitude, only 38% of boys and 33% of girls scored 50% and above.

In brief, performance by pupils at the RC School Police Barracks in the NPSE over the period compares favorably with performances in the five REBEP supported schools examined in this study despite the lack of support, the poor physical learning environment, and the chronic lack of learning resources. The investments in the target schools may have been worthy but only in terms of improved access and enrollment. Its effect on learning achievement in the five schools examined and perhaps others supported by REBEP cannot be justified based on the forgone.

### **Analysis and Major Findings**

In this section, I analyze the major findings of the study in two phases; first, REBEP's overall strategy and project outcomes. The second phase examines some of the cross-cutting issues highlighted in the case studies. The section concludes with a discussion of identified challenges and prospects for achieving the EFA goals in 2015 in Sierra Leone particularly those pertaining to educational quality.

#### **REBEP Strategy**

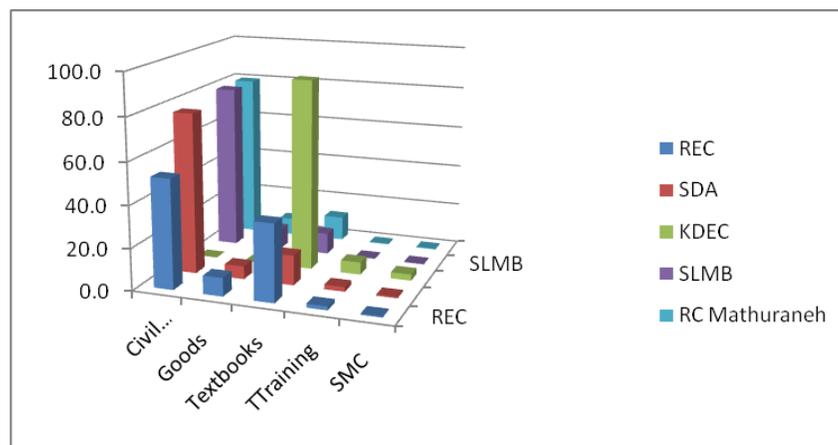
REBEP was conceived and developed with the goal to assist the Government of Sierra Leone to re-establish education services and prepare the grounds for building up the education sector after a protracted civil war. The main objective of REBEP was to assist participating schools achieve a basic operational level through partnership with the Ministry of Education, donors, civil society, and non-governmental organizations (NGOs). The design and instructive use of the term "rehabilitation" suggests a presumed emphasis on investments infrastructure. Arguably, the use of the term rehabilitation in educational discourse connotes largely to physical structures than to education systems. The over-emphasis on rehabilitation is even more evident when one considers the proportion of funds allocated to civil works and the supply of goods in each funding proposal submitted to the PSC. Table 62 provides an example of the

disproportionate allocation of funds to the various project components in the five targeted schools examined in the study.

**Table 62: Distribution of Expenditure by Item in REBEP Target Schools**

	Civil Works	Goods	Textbooks	Tr. Training	SMC
REC	52.2	8.8	36.7	1.8	0.5
SDA	76.8	6.2	14.3	2.2	0.6
KDEC	0	0	91	6	3
SLMB	79.3	9.9	10.2	0.3	0.3
RC Mathuraneh	79.6	8.2	11.7	0.2	0.3

From the table, at least 83% of funds were utilized for civil works and supply of goods (furniture) in three of the four schools on full grant support; REC school-Waterloo being the only exception where construction work and the supply of goods accounted for about 61% of the funds allocated. The supply of textbooks was also a significant investment in all five schools with KDEC receiving 91% of its funds for the purchase of core textbooks (Figure 27). However, events over the last six years reveal considerable apprehension with falling school standards at all levels especially poor performance in public examinations. Nevertheless, the inequitable allocation of project funds by component activity was in line with the strategic objectives spelt out in the REBEP project proposal-rehabilitating the basic education system to ensure expanded access over time. Indeed, the emphasis was on ensuring attainment of a basic operational level.



**Figure 27: Investment Breakdown by REBEP School**

This strategy may be understandable given the level of destruction of school infrastructure during the civil war and the need to rebuild. However, what is perhaps incomprehensible with the REBEP project is the conceptual basis of the strategy utilized—the desire to achieve a fundamental quality level (FQL). Conceptually, the FQL is a set of criteria that is supposed to evolve over time as minimal standards are met for the majority of schools. These minimal standards, defined as basic operational levels, included the availability of a safe physical structure; supplies of basic furniture, main textbooks, and teaching and learning materials; attainment of a teacher pupil ratio of one teacher per 40 students; and a functioning school management committee (SMC). The main rationale for this strategy was that it will eventually provide a solid basis for the education system to evolve and enable the “country to make rapid progress towards the achievement of some of the more quantitative Education for All (EFA) goals (universal completion of primary education by 2015 and elimination of the gender gap in primary and secondary education by 2015)” (World Bank, 2003, p. 12).

By every indication, the notion of quality as encapsulated in REBEP’s conceptual framework ominously excludes such dimensions such as learning achievement, instructional quality, and pursuit of outcomes (social, economic, and political goals). The literature on quality (Harvey, 1995) highlights five conceptions of educational quality— the need for school systems to maximize the pursuit of the highest potentials in students; ensuring a vision of equality and equity of the experiences of learners; preparation of students in specific subject areas so that learners have potential to perform specific roles in society; and instructional methods that are tailored to meet such specialization. Further, education quality is perceived as value for money implying worthiness in terms of individual and societal investments in the educational enterprise. In effect, quality connotes the extent to which the school system delivers value for

money; hence many education systems often resort to cost-benefit analysis of education investments.

Similarly, Pigozzi (2003) notes that contemporary understandings of what constitutes quality has evolved from a notion of basic academics such as reading, writing, and arithmetic to more critical components such as teachers, content, methodologies, curriculum, examination systems, policy, planning, management and administration. Leu (2005), articulates a more pragmatic notion of educational quality noting in particular an expanded characterization of quality as school efficiency and effectiveness. These elements are considered critical for increasing or improving school achievement. Above all, UNESCO (2004) defines quality education and effective schooling in more specific terms, over and beyond safe physical environments as highlighted in the literature review in Chapter Three.

In essence, the conceptual underpinnings of REBEP seem to reflect a rather radical departure of the intent and spirit of the EFA Dakar Framework for Action as agreed in 2000, particularly the emphasis on the improvement of “all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills” (UNESCO, 2000, p. 8). This departure, as made evident in this study and previous studies either by omission or commission, undercuts the spirit of the EFA goals and may be typical of current donor strategy and support to the education sector in developing countries. Heneveld (1994), in an evaluative study of World Bank projects, notes that only 1 project out of the total 25 addressed teaching and learning processes in the schools. Moreover, only 2 projects addressed the issue of school climate factors (high expectations of learners, positive teacher attitudes, rewards and incentives, etc.); and only 8 considered addressing In-school teacher development processes compared to 23 that addressed provision of textbooks and support for pre-service training.

A more recent study carried out by the World Bank’s Independent Evaluation Group (IEG) in 2006, on World Bank support to the education sector suggests that most projects downplayed qualitative aspects of school-level inputs and processes. The report notes that only “about one in five projects had an explicit objective to improve student learning outcomes” (World Bank, 2006, p. xv). The report concludes that while the projects were concerned with issues of educational quality, this was mainly perceived in terms of delivery of inputs and services such as textbooks and strengthening education sector management and governance rather than school level attributes. The IEG report recommends, amongst others, that “primary education efforts need to focus on improving learning outcomes, particularly among the poor and other disadvantaged children”, (World Bank, 2006, p. x). While such a recommendation is laudable and perhaps timely, it remains to be seen how soon pragmatic actions would be taken by donors to reify such a policy reform. In the main, in the case of the REBEP project, the reality on the ground indicates disproportionate emphasis on expanding access, often at the detriment of learning quality.

### Progress towards Project Outcomes

The following accomplishments were reported by the project secretariat as at December 2008:

Table 63: Summary of REBEP Achievements

<i>Activity</i>	<i>ADB Districts</i>	<i>IDA Districts</i>	<i>Other Inputs</i>	<i>Total completed</i>	<i>Target</i>	<i>Identified Gaps</i>
Primary School Rehab/Const.	15	110	-	125/158*	289	164
JSS Rehab/ Construction	2	31	-	33	100	67
Primary Teachers Trained	522	2000	1488**	4,010	6,007	1,997
JSS Teachers Trained	156	600	-	756	756	-
Core Primary Texts Supplied (Set of 4)	214,284	209,466	-	423,750	1,000,000	576,250
Core JSS Texts Supplied	20,778	15,684	-	36,462	100,000	63,538
SMC Trained	55	270	-	325	481	156
Const. of Trs. Housing	12	0	-	3	12	9
Rehab/Const. Tec/Voc.	4	4	-	0	8	8

*Source: MEST-SABABU Education Project Status Report, December 2007. \*The Status Report initially reports 125 schools completed. Data from Annex reports 158 schools.*

a) School Rehabilitation

From the above table, progress was made in the area of rehabilitation and construction of schools. An estimated 43% of the targeted primary schools and 33% of junior secondary schools were completed over a five year period. However, activities funded by the African Development Bank (AfDB) lagged behind considerably such that only less than 10% of the targeted primary schools and 4% of junior secondary schools have been completed with AfDB funds. An estimated 164 primary schools (56.7%) and 67 junior secondary schools (67%) are yet to be completed.

b) Teacher Training

A fewer number of untrained and unqualified primary school teachers were trained with AfDB funds; an estimated 26% of 2,005 teachers targeted in the districts supported. The slow pace of implementation in ADB funded districts has been attributed to bureaucratic delays and complicated and convoluted procurement procedures and processes for the approval of funds at the AfDB secretariat. By January 2009, nearly 2,000 primary schools teachers (about 33%) were yet to be trained nationwide in ADB districts.

c) Textbook Supplies and Distribution

A total of 576,250 core textbooks amounting to 57.6% have still to be supplied to primary schools while 63, 538 core textbooks (63.6%) still to be supplied to junior secondary schools.

d) Teachers' Housing Units

Only 3 housing units had been completed as at January 2009 leaving 75% of the target to be accomplished in the next twelve months.

e) Rehabilitation/Construction of Vocational Centers

A July 2009 REBEP report indicated that no significant progress had been made towards achievement of this objective partly due to lack of funding to support implementation.

f) Capacity Building of MEST/PCU

A recent draft report by the PSC indicates that the Procurement and Finance staff of the PCU received training; an unspecified number of District Education Offices (DEOS) received logistics support; and that the EMIS had been established in the Planning Division of MEST with funds provided by DFID and the government of Sierra Leone. However, the report notes that the DEOs are in dire of need of logistics support to undertake supervision and monitoring.

g) Training of SMCs

About 32.4% of the targeted 481 SMCs had still not benefitted from any training or capacity building support. SMCs that have been trained served in restrictive advisory roles while managers and proprietors of schools managed the affairs of each school including control of school budgets and making decisions on hiring, transfers, and promotions.

h) Monitoring and Supervision

In the course of collecting data from the targeted schools, it was discovered that even though monitoring and supervision were key elements of the REBEP project, adequate mechanisms or systems had not been put in place to ensure this process. At the school level, heads of schools were not privy to the details of the proposals and the specific interventions therein. Contractors were not accountable to school leaders and complaints of unsatisfactory civil works or even non-performance could only be channeled through inspectors of schools. Moreover, there were glaring inconsistencies in unit costs charged by different contractors or implementing agencies. In one instance, the direct unit cost of training a teacher was Le. 202,409 as charged by ActionAid (SL) compared to Le. 930, 009 charged by Adventist

Development and Relief Agency (ADRA). Both the PSC and the coordination unit failed to capture these lapses in charges. As a result, the quality of civil works and goods delivered varied from one school to the other.

In essence, significant gaps remain in terms of implementation and accomplishment of almost every component of the project targets. Table 64 offers detailed insights into progress made so far towards achieving project outcomes and the outstanding targets.

**Table 64: Progress towards Achievement of REBEP Outcomes**

<b>Progress Towards SABABU Project Outcomes (2003-2008)</b>		
<b>Component</b>	<b>Progress (%)</b>	<b>Outstanding (%)</b>
Primary sch. Rehab/Construction.	55	45
JSS Rehab/Construction.	67	33
Primary School Teachers Training	33	67
JSS Teachers Training	100	0
Core Primary Textbooks Supp.	42.4	57.6
Core JSS Textbooks Supplies	36.5	63.5
Sch. Management Committee Training.	67.5	32.5
Const. Teachers' Housing	25	75
Rehab/Const. Voc. Centers	0	100

With only one more year left of implementation, it is not certain that the revised targets of REBEP will be achieved given the current pace of implementation. It is also likely that most targeted schools may not attain the fundamental quality level (FQL) indicators especially the following:

- **Projected pupil/teacher ratio of 30 to 45:** The construction of school structures contributed significantly to increases in access and enrollment. However, pupil/teacher ratios have either remained high or increased on average to between 50:1 and 60:1.
- **Availability of furniture:** Supplies of school furniture did not match increases in enrollment. As a result, classes were overcrowded with an average of 3 pupils per one set of furniture. In some schools, there were 5 pupils per one set of furniture. Equally, teacher's reported shortages in the supply of furniture for teachers use.
- **Textbook distribution:** Although the supply of core textbooks was acknowledged as one of the major accomplishments of SABABU, most schools could not meet the 4 core textbooks per pupil target. The textbook per pupil ratio remained high at an average of

1:3. Pupils do not take home textbooks because they are inadequate or due to security concerns.

- Teaching aids and learning materials: There was a systemic lack of teaching aids and learning materials in target schools because of funding limitations. Some teachers could not prepare lesson notes because of lack of supplies of teacher's guides, syllabuses, and notebooks.
- Teacher training and development: The revised training target of 50% of untrained teachers was not been achieved. Status reports and field observations indicate that less than 10% of untrained and unqualified teachers benefitted from the in-service training while no provision was made for step-down trainings.
- Teachers' performance in classrooms remains unsatisfactory as teachers' instructional practices were largely lectures, talk and chalk, and ineffective use of textbooks for teaching.

Nevertheless, the World Bank's Status of Project's in Execution for 2008 (SOPE FY2008)

report notes that the "project has made positive progress towards achieving its development objective" (p. 3). Specifically, it cites a number of indicators as proxies for progress including:

- Increase in Gross Enrollment Ratio (GER) to over 100% for primary schools and 44% for junior secondary schools;
- The percentage of girls enrolled slightly exceeded the 47% target for primary and 41% for junior secondary schools. Admission into Primary One Level increased from an estimated 200,000 to 300,000 over the project period.
- The number of pupils "passing" the National Primary School Examination (NPSE) after primary Six increased from 68.63% in 2005 to 72.5% in 2007; the actual number of pupils passing the NPSE increased from 52,122 pupils in 2005 to 69,774 in 2007.
- Progress on access to education has been enhanced by the rehabilitation and construction of about 100 out of 221 planned schools.
- Over 490,000 sets of textbooks (target of 500,000) had been distributed to primary schools, and over 45,000 sets (target of 50,000) had gone to junior secondary schools.
- A total of 4,010 primary teachers have been trained. At junior secondary level, 754 out of a target of 994 have benefited from the training.
- Out of 462 School Management Committees (SMCs) to be trained under the project, 314 have received training; an estimated 203 are functioning to ensure the continued improvement of education quality.

However, the report does not mention progress towards achievement of the FQL indicators in target schools as a measure of the basic operational level, the criteria on which schools were to be assessed. The assessment of the overall impact of REBEP by the World Bank appears overly optimistic considering that the achievement of objectives was yet to be realized as shown in Figure 25 above. Although considerable progress has been made in terms of increases in gross enrollments in both primary and junior secondary schools and the percentage of girls enrolled, the same cannot be said for other indicators. The quality of teaching and learning in the target schools continues to be appalling despite attempts at training unqualified teachers and the supply of core textbooks. There is a general lack of teaching/learning materials; the textbooks per pupil ratio is estimated at 3 pupils per text while the targeted pupil/teacher ratio of 40:1 increased from 50:1 to 60:1 (World Bank, 2007). This increase is primarily due to expanding access and increased enrolments especially in SABABU project schools following the construction and rehabilitation exercise.

#### **Analysis of Cross-cutting Issues in Case Studies**

Implementation of the REBEP project commenced in 2003; however, project activities commenced at different times in each target school or district depending on the release of funds. In fact, activities were still being carried out in various forms around the country especially in ADB supported districts such as Kono, Koinadugu, Port Loko, and Urban Freetown. As a result, progress made at the overall project level could significantly change in future. At the five school supported by REBEP, implementation of project activities was almost complete; however, work was ongoing in varied forms such as the delivery of furniture, textbooks, training of SMCs and uncertified teachers as specified in the project objectives. While construction work is complete in the 5 schools, the quality of work is questionable in 4 of the schools (Table 65).

Table 65: Program Interventions to achieve Fundamental Quality Level						
<i>School</i>	<i>School construction Pupil / Teacher ratio-40:1</i>	<i>Teacher's housing units constructed</i>	<i>In-service Tr. training for UU- # Trained</i>	<i>Core Textbooks 4:1 pupil ratio</i>	<i>Teaching learning materials</i>	<i>Training of SMCs</i>
REC Primary School, Waterloo	4 classroom block, Office space <ul style="list-style-type: none"> <li>○ P/T ratio 39:1</li> <li>Desks-7:1</li> <li>Benches-7:1</li> <li>● Well- Incomplete</li> </ul>	0	2/5 UUs  2/14 Total	<b>2,573</b> English-1:1 Maths-1:1 Science-1:2 S. studies-1:1 <b>4 coretext:1</b>	2 Teachers' guides 7:1 ratio 2 Harmonized syllabus-7:1 ratio	1 member trained
SDA Primary School, Waterloo	3 Classroom block; <ul style="list-style-type: none"> <li>● Office space</li> <li>● P/T Ratio-41:1</li> <li>● Desks-17:1</li> <li>● Benches-17:1</li> <li>● Well- Incomplete</li> </ul>	0	2/7  2/19 Total	<b>845</b> English-1:4 Maths-1:4 Science-1:4 S. Studies-1:4 <b>1 coretext:1</b>	2 Teachers' guides 9:1 ratio 2 Harmonized syllabus 9:1 ratio	1 member trained
KDEC Primary School, Kambia	<ul style="list-style-type: none"> <li>● Furniture- Desks-5:1</li> <li>Benches-5:1</li> <li>● P/T ratio-47:1</li> </ul>	N/A	5/7  5/22	<b>1,004</b> English-1:3 Maths-1: 4 Science-1:6 S. Studies-1:7 <b>1 coretext:1</b>	2 Teachers' guides 11:1 ratio 2 Harmonized syllabus 11:1 ratio	0
SLMB Primary Romacca, Kambia	6 classroom block, Office Space <ul style="list-style-type: none"> <li>● Pupil/T ratio-43:1</li> <li>● Furniture- Desks-3:1</li> <li>Benches-3:1</li> <li>○ Well- Incomplete</li> </ul>	1	2/3  2/7	<b>919</b> English-2:1 Maths-2:1 Science-2:1 S. Studies-2:1 <b>3 coretext:1</b>	1 Teachers' guides 7:1 ratio 1 Harmonized syllabus 7:1 ratio	1 member trained
RC Primary Mathuraneh, Kambia	6 classroom block, <ul style="list-style-type: none"> <li>○ Office Space</li> <li>○ Pupil/T ratio-39:1</li> <li>○ Furniture- Desks-3:1</li> <li>Benches-3:1</li> <li>○ Well-Incomplete</li> </ul>	1	0/6	<b>943</b> English-1:1 Maths-1:1 Science-2:1 S. Studies-1:1 <b>4 coretext:1</b>	1Teachers' guides, 6:1 ratio 1 Harmonized syllabus 6:1 ratio	0

N/A-Not Applicable

The above table summarizes progress made by July 2009 towards achievement of project outcomes. The findings indicate that the FQL was not achieved in the target schools examined in the study with the exception of improved access due to construction. While the quality of civil works was questionable in about 80% of the schools, it nevertheless contributed significantly to increased enrollment and expanded access. In some cases- SLMB school, RC school Mathuraneh, and REC school, Waterloo- enrollment nearly doubled (Table 66).

**Table 66: Student Enrollment and Learning Materials Supplied**

	Pupil/Teacher ratio-45:1	Enrollment			Textbooks 4 core/Pupil		Notebooks/ Pens/pencils
		Boys	Girls	Girls %	Total	Text/Pupil	
REC Primary	39:1	248	297	55	2,573	4:1	No supplies
SDA Primary	41:1	375	410	52	845	1:1*	No supplies
KDEC Primary	47:1	499	524	51	1,004	1:1*	No supplies
SLMB Primary	43:1	156	148	49	919	3:1	No supplies
RC Primary	39:1	140	93	40	943	4:1	No supplies

*\* Only 1 core textbook is available per pupil in these schools*

Further, girls' enrollment accounted for at least 40% at RC school Mathuraneh; 49% at SLMB school Romacca; 51% at KDEC school Kambia; 52% at SDA school Waterloo; and 54% at REC school Waterloo. The increase in girls' enrollment may be partly due to increased sensitization efforts on girl child education across the country. Furthermore, all five schools were well within the stipulated pupil/teacher ratio of 44:1; it varied from 39:1 at REC school Waterloo and RC Mathuraneh to a high of 47:1 at KDEC school, Kambia. These mean figures masked significant variations between classes within schools; for example, at REC school Waterloo, the pupil/teacher ration in class Six was 79:1 compared with 25:1 in class Four. At the SLMB primary school, Romacca, the pupil/teacher ratio in class six was 20:1 compared with 43:1 in class one. One major issue with the expanding enrollment in the schools was the demand for adequate furniture.

Moreover, although the supply of core textbooks was acknowledged as critical for learning in the targeted schools, supplies were, however, inadequate at the SDA, KDEC, and SLMB primary

schools; hence each school could not meet the 4 core textbook per pupil criterion. REC primary school –Waterloo and RC primary school-Mathuraneh indeed met the prescribed 4 core textbook per pupil ratio. There were also disparities in terms of textbooks supplied to schools. At the KDEC primary school-Kambia, the ratio of English textbooks per pupil was 1 to 3 pupils; Mathematics- 1 to 4 pupils; Science- 1 to 6 pupils; and Social Studies-1 to 7 pupils. One possible explanation for the subject disparities is that the number of textbooks supplied to the school may not have been based on a school’s enrollment. Above all, notebooks, pens and pencils were not supplied to pupils in the schools sampled for the study. This was evident in the classes observed during data collection. No reason was given for this apparent oversight by the project.

In terms of staffing and teacher quality, a REBEP Status Report indicated that about 4,010 untrained and unqualified teachers were trained country-wide as at December 2008 while an additional 1,997 (33%) were yet to be trained. In the schools studied, only 2 teachers were trained in each of 3 schools-REC primary, SDA primary, and SLMB primary schools- representing 14%, 11% and 29% respectively. At the KDEC school, 5 teachers were trained from a total of 22; representing 23% whilst no one was trained from RC primary school-Mathuraneh. Moreover, while the percentage of teachers trained was important for evaluation purposes, it was not clear from observations how much impact, if any, the training had on teachers’ classroom practices. The findings showed that lecturing, chalk and talk, and copying notes on the blackboard constituted the daily instructional practices of teachers in the schools. Furthermore, only limited copies of Teacher’s Guides and the Revised Harmonized Syllabus were supplied to schools. In some schools, the ratio of teachers per guide or syllabus was high, for example, 7 at REC primary and SLMB primary schools and 9 and 11 at SDA primary and KDEC primary schools respectively. Finally no teaching aids were supplied to the five schools investigated. Thus, if anything, expected outcomes relating to teacher training, supply of adequate teachers’ guides, Harmonized syllabuses, and

teaching aids were not met in the schools and certainly did not meet the third component of the fundamental quality level criteria.

Additionally, a major component of the REBEP strategy was ensuring institutional support and capacity building of the ministry of education and the targeted schools. This strategy was intended as a precursor to general reform efforts at education decentralization and school governance by the government in partnership with other agencies. As a result, school management committees (SMC) were established in each REBEP supported school to serve in advisory capacities. However, the extent of the SMC's participation in decision making and management of the school was questionable in several instances. According to heads teachers at REC and SDA primary schools, the SMC members were very active and contributed to raising funds in support of teachers not on the payroll and helping to sensitize the community about education of the girl child. However, the SMC's were not involved in decisions relating to control of the school's budget, the curriculum, and staff hiring and transfer issues. The proprietors of schools, managers of mission schools, and the inspector of schools undertook those functions, often without consulting SMC members. In short, participation and effectiveness of SMC's varied from one school to the other in the study.

#### **Assessment of Performance in the NPSE by Schools in Case Studies**

The findings in each school indicate considerable variations from year to year and from one case to the other. Notwithstanding these variations, there were certain commonalities across the schools. First, REBEP contributed to increases in access and enrollment across the target schools. With increased enrollment, all five supported schools experienced more than 50% increases in the number of candidates taking the NPSE as completion and retention rates improved. Further, the number of candidates who scored the official aggregate scores for admission to JSS increased although this may not be interpreted as an improvement in learning. At REC, SDA, and KDEC

primary schools, the number of candidates taking the NPSE increased by either 100% or more from 2002 to 2004. In 2008, the number of candidates had more than quadrupled in all the three schools. Also, the number of girls who completed school and took the examinations also increased significantly in all five schools. There was no significant increases in the number of candidates that took the NPSE between 2004 and 2008 at RC school-Mathuraneh; a mere 33%.

Performance of candidates at the NPSE varied from year to year with the pass mark kept at a minimum by the government. At the REC school, the percentage of candidates who scored the required pass mark fell steadily from 81% in 2002 to 53% in 2004, and 28% in 2006 before rising sharply to 86% in 2008 (Table 67).

Table 67: Percentage Passes and Failures by School

Year	REC		SDA		KDEC		SLMB		RC MATH		RC PBK	
	Pass %	Fail %										
2002	81	19	100	0	96	4	0	0	0	0	0	0
2003	78	22	89	11	25	75	0	0	0	0	0	0
2004	53	47	55	45	98	2	90	10	0	0	93	7
2005	40	60	62	38	96	4	100	0	11	89	63	37
2006	28	72	75	25	62	38	100	0	100	0	97	3
2007	51	49	64	36	47	53	87	13	82	8	80	20
2008	86	14	35	65	93	7	72	28	100	0	85	15
Total	<b>56%</b>	<b>44%</b>	<b>61%</b>	<b>39%</b>	<b>69%</b>	<b>31%</b>	<b>89%</b>	<b>11%</b>	<b>77%</b>	<b>23%</b>	<b>85%</b>	<b>15%</b>

At the SDA primary school, the pass rate fell from 100% in 2002 to 35% in 2008, indicating a failure rate of 65%. At KDEC, the pass rate fluctuated from year 96% in 2002 to an all time high of 98% in 2004 year and then fell to 62% in 2006 and rose again to 93% in 2008. The performance at SLMB was surprisingly much stronger with consistently high pass rates-100% in two consecutive years in 2005 and 2006 before falling to 72% in 2008. Above all, RC school Police Barracks performed much better than REC, SDA, KDEC, and RC Mathuraneh primary schools, registering an overall pass rate of 85% during the period under study. Only SLMB primary school scored an overall

pass rate of 89%, slightly higher than the rate obtained at RC school Police Barracks. Considering the failure rates at each of the schools in the study, it is obvious that a considerable number of students could not meet the transition requirements to junior secondary school. Further, a greater proportion of candidates scored aggregates in the two lowest score-sets, 230-279 and 280-329, indicating a skewed distribution of scores and an appalling trend which is typical of the overall results at the national level.

Moreover performance in individual subject areas was also a cause for concern across all schools with a significant number of students failing to score 50% in either Mathematics or Science. At REC school-waterloo, the mean scores in Mathematics from 2002 to 2008 were consistently below 50%. When compared to performance by candidates at RC school, Police Barracks, the proportion of candidates that scored above 50% in Mathematics rose steadily from 5% in 2002 to 99% in 2005 but fell sharply to 27% of 125 candidates in 2006. Finally, in almost all of the case studies, there were no significant differences in the performance of girls and boys in the core subject areas-Mathematics, English, Social Studies, and Science. In some schools, girls performed at much higher levels than boys; for example, at KDEC school the two highest scores ever recorded by a candidate in any subject were scored by girls; 76% and 81% in English which was scored in 2002 and 2008 respectively.

Thus it would seem from the forgone analysis that, in the short term, performance by schools at the NPSE over the years may not have been significantly affected by the various inputs and interventions by REBEP. The evidence shows that despite the lack of inputs to RC primary school, Police Barracks, the school held its own in terms of overall performance in the NPSE compared to the targeted and resourced schools. Also, performance at the KDEC primary school was commendable even though the school only received partial grant funding from REBEP. Of particular significance was the fact that much of the funding to KDEC primary school, an enviable

91%, was allocated to supply of core textbooks while 6% went towards teacher training. Therefore, could these two interventions be considered critical for the commendable performance of pupils at KDEC primary school?

The findings are inconclusive but it is worth noting for future research and policy making. The effects of specific interventions on learning outcomes brings into focus the debate over what factors are critical for improving school effectiveness in the long term, and learning achievement in the mediate term, as demonstrated by performance in national examinations or assessments. As a step towards understanding the dynamics around school effectiveness issues, the next section examines some of the critical issues and factors as revealed in the study.

### **Critical Issues identified for School Improvement**

Based on evidence gathered from each of the schools in the study, five key issues related to school effectiveness were identified -school leadership; monitoring and supervision of teachers (internal and external); teacher preparation and readiness including instructional practices; time on task and teachers' conditions of service; and community and parental involvement.

#### **I. School Leadership**

The effectiveness of school leaders was a focus of the study. Management of the schools depended on ownership by missions or by the government. Mission schools were managed by proprietors or appointed managers such as parish priests who ceded functions like basic administration to the head teachers. This was the case at the two Roman Catholic schools, SLMB, and SDA Mission schools. At KDEC and REC primary schools, management responsibilities were the exclusive preserve of the inspectors of schools. In general, the mission schools seemed well managed and organized with distinct areas of responsibility for managers and heads of schools compared to the public schools. The public schools were more prone to bureaucratic delays on staff related issues, infrastructure development, and budget issues.

Nevertheless, the heads of all six schools performed certain common roles; administrative responsibilities such as monitoring enrollment and pupil attendance, paying salaries of teachers and doing returns, attending meetings called by the ministry of education, and chairing staff meetings. One function which the heads of schools did not mention as part of their responsibilities was teaching as well as ensuring that other teachers were effectively being observed. Head teachers also reported the establishment of School Management Committees (SMC) and the functioning of Parent Teacher Associations (PTA). Both entities functioned in advisory capacities in matters related to staff discipline, pupil discipline, and infrastructure development. The SMCs did not have control over school budget decisions although this function was part of their overall mandate.

Moreover, head teachers reported that they did not have the necessary authority to determine who was hired as a teacher in the school or transferred. As a result, the heads felt powerless to discipline teachers as managers usurped these functions. Furthermore, the heads were hand tied to take action against teacher absenteeism and lateness because of the poor conditions of service for teachers. Finally, due to late payments of school subsidies to schools, head teachers felt handicapped to provide much needed teaching and learning materials to teachers including note books for preparing lesson plans.

## II) Monitoring and Supervision of Teachers

The study identified two levels of supervision in the schools: internal supervision by head teachers and external supervision by inspectors and supervisors of schools. In the sample schools, the head teachers assumed responsibility for supervising teachers work through review of schemes of work, lesson plans and forecasts. Five out of the six heads of schools delegated this responsibility to either a deputy head teacher or another senior teacher. In all schools, such review of schemes of work and lesson plans and other supervisory responsibilities were not carried out regularly. SDA

primary school reported reviewing schemes of work and lesson plans at least twice a month while three other schools-REC, KDEC and RC Police Barracks reviewed lessons once a term. At RC Mathuraneh and SLMB, lesson reviews occurred twice per term. Further, teachers observed in all six sample schools during the study taught lessons without lessons plans or notes. More than half of the lessons observed were repeat lessons from the first term. Teachers complained of lack of funds to purchase notebooks and teaching aids; hence they could not prepare lesson notes.

Moreover, the study found out that while head teachers were aware of the need to observe teachers during lessons in order to offer meaningful advice about instructional practices, such observations were not regularly carried out. Peer support was completely lacking in all the sample schools studied. Above all, the school leadership in half of the schools studied failed to conduct any in-service training of teachers in the last 3 years. The head teachers at SLMB primary school, RC Police Barracks, and REC school Waterloo reported conducting in-service training for teachers in record keeping such as closing registers and preparation of lesson notes during the first term.

External supervision by inspectors of schools on the other hand occurred far less in 5 out of the 6 schools. Supervisors of schools visited the REBEP schools only twice per term. KDEC primary school was visited far more per term, sometimes daily because of proximity to the district education office in Kambia. The purpose of the visits, according to head teachers, was either to collect data on enrollment, supervise payment of teachers' salaries, conduct teacher verification exercises or disseminate policy information from head office. All 6 sampled schools did not benefit from supportive supervision or in-service training of teachers in the last twelve months. While supervisors of schools were aware of their responsibility to conduct in-service training sessions for teachers, they were constrained by the lack of resources and limited mobility. As a result, supervisors lacked the capacity and, perhaps, fresh content knowledge and pedagogical skills to

train teachers. Supervisor of schools are mostly retired teachers in their mid sixties who were still on the payroll of their former schools.

### III) Teacher Readiness and Instructional practices

The study looked at the quality, capacity, and readiness of teachers to perform effectively and professionally in the various schools. The findings revealed that at least 33% of the teaching staff in 3 schools was uncertified and unqualified-REC, SDA and KDEC primary schools. The percentage of uncertified teachers rose was 57% at SLMB primary school and 50% at RC school-Mathuraneh. These teachers were earmarked for training by the REBEP project. However, it emerged from project reports that less than 50% of uncertified teachers from each school benefitted from the training which focused essentially on teaching methods in Science, Mathematics and Language Arts. Only 2 teachers were trained each at REC, SDA, and SLMB primary schools while none was trained at RC Mathuraneh.

Some teachers participated in workshops organized by agencies and NGOs such as JICA which organized a workshop for teachers at the SLMB school on Science and Mathematics teaching. FAWE trained teachers at KDEC primary school on HIV and AIDS Education while UNICEF organized a workshop on emerging issues (human rights, girls education, sexual violence, etc.). On the whole, the level of teacher readiness for both certified and uncertified teachers in the sampled schools was unsatisfactory as shown by their instructional practices during observations. The teachers only used one or two methods that did not involve learners and teachers did not utilize any materials to enhance pupils' learning. The common instructional methods were lectures, writing notes on blackboard for pupils to copy, improper use of textbooks and question and answer. Instructional events like role play, group work, writing assignments, administering examinations and reviewing pupils' homework occurred less frequently. Further, 4 out of the 7 teachers observed administered examinations only 1-3 times per term while 2 teachers did so 1-3

times a month. Moreover, in all 7 lessons observed, pupils did not manipulate materials or participated in any practice activity during lessons. Pupils did not ask questions and were offered very little or no opportunity for critical thinking. Lessons were taught without schemes of work and lesson plans reviewed by head teachers. Moreover, classrooms were bare without teaching aids and very little use was made of the school environment or community resources for teaching even though local resources were readily available.

#### IV) Time on Task and Teacher's Conditions of Service

Teacher's time on task has diminished significantly over the last ten or more years according to a World Bank study (World Bank, 2007). Teachers are less motivated to perform at their best and less committed to the teaching profession. Public holidays, school induced holidays, absenteeism, and arriving late in school is common place while there were few or no systems for accountability. This has led to reductions in both school and instructional time in the schools studied. A recent World Bank national study indicates that from a possible 200 days of school time, an estimated 23 days are used up as public holidays or used for other school activities in Sierra Leone (World Bank, 2007). This reduction in instructional time has implications for learning achievement according to recent research (Abadzi, 2004; Benavot & Amadio, 2004; Gilles & Quijada, 2008).

While these lapses point to a general lack of readiness on the part of teachers and could potentially affect teacher effectiveness, it was a sign of much deeper problems-low teacher morale, teacher fatigue, lack of opportunity for professional growth, lack of adequate incentives, late payment of salaries, lack of accommodation, and low salaries that do not keep pace with rising costs. In school, teachers have little or no opportunity to make leadership decisions such as chairing staff meetings or suggesting agenda items. Above all, some teachers were not on the payroll for the last two years even though certified. The schools offer incentives to such community

teachers amounting to less than \$18 per month, usually provided by either parents or through community support. It was therefore not surprising that 86% of the 7 teachers interviewed indicated that they will leave teaching if offered other job options.

#### V) Community and Parental Involvement in school

Community involvement and support at school activities was noted as satisfactory by head teachers. School had established school management committees (SMCs) but their role was limited to advising on issues related to teacher discipline, attendance by pupils and teachers, and fund raising. The SMCs neither participated in budgetary decisions, curriculum related matters or hiring and transfer decisions. Some communities contributed labor to build a fence around the school and provided land for school gardening activities such as REC school. At KDEC school, the community and Parent Teacher Association provided funds to pay incentives to two community teachers and jointly established a Mother's Club in the community to increase girls' enrollment. In all 6 schools, parental support to teachers and concern for the education of children helped improved school attendance and retention, particularly for girls.

However, participation of the community and parents in school governance matters was symbolic and limited to attending meetings in all 6 schools as governance decisions were taken by either managers appointed by the missions or the inspectors of schools in each district. The managers exercised exclusive control over school budgets and expenditure. Further, the majority of citizens in these rural communities were illiterate which limited their capacity to participate in curriculum matters and pedagogy. In short, core curriculum issues and governance decisions were left to managers and some heads of schools.

### **Chapter Summary**

This chapter analyzed the findings of the study in three phases. The first phase presented the findings at the broad project level highlighting progress made so far towards achievement of

project objectives and outcomes. The second phase presents data and analysis of each case study gathered primarily through observations, interviews, focus group discussions and questionnaires administered by the research team. The last phase was a cross-case analysis of the major findings of the case studies with a focus on progress towards achievement of FQL criteria. Based on the findings and analysis, a number of tentative conclusions were drawn with respect to the research questions as well as highlighted challenges with the REBEP project strategy. These conclusions are presented in the next chapter with recommendations and suggestions for future research on quality education delivery in low resource contexts

## CHAPTER 7

### CONCLUSIONS AND RECOMMENDATIONS

This evaluative and exploratory study was undertaken primarily to investigate implementation of REBEP in targeted schools in Sierra Leone after a protracted civil war. The main objective was to assess the effects of the REBEP program on various dimensions of education quality dimensions with specific focus on learning achievement in targeted schools. The REBEP strategy is founded on achievement of a Fundamental Quality Level (FQL) criteria measured by basic operational level indicators. The strategy assumed that educational quality can be achieved in schools through specific inputs and interventions over time. After six years of implementation, this study examined the extent to which project outcomes were achieved in general and specifically in five schools that received support from REBEP since 2003.

More importantly, the research explored potential effects of the intervention on learning achievement and outcomes as measured by performance in the National Primary School Examination (NPSE) in Sierra Leone assuming targeted schools attained a basic operational level (BOL). Five specific research questions were explored in the study:

In an attempt to answer the research questions, a case study approach was chosen using mix-methods as the research methodology. The case studies were carried out in six schools that were selected purposely; five that received REBEP and one school that was a quasi-control. Based on the findings at both the broad REBEP project level and individual case studies, a number of conclusions can be drawn.

## Conclusions

### 1) Rehabilitation and its impact on access and enrollment

The main objective of REBEP was to contribute to the expansion of educational access and improvement in quality in targeted schools. The main strategy adopted to achieve this objective was through infrastructure development to ensure safe learning environments. The findings indicate some considerable success with rehabilitation activities;

- An estimated 43% of the 289 targeted primary schools and 33% of 100 junior secondary schools were reconstructed, constructed or rehabilitated since 2003.
- The construction of these new structures contributed significantly to increases in enrollment in the target schools although in varying degrees.
- Primary Gross Enrollment Ratio (GER) rose to over 100% overall while junior secondary GER is estimated at 44% [World Bank Status of Project's in Execution 2008, SOPE FY2008].
- The percentage of girls enrolled slightly exceeded the targets at 47% in primary and 41% in junior secondary schools.
- Admission into Primary One Level increased from an estimated 200,000 to 300,000 over the project period.

However, civil work activities funded by the African Development Bank (AfDB) lagged behind considerably such that less than 10% of the targeted primary schools and 4% of junior secondary schools have been completed with ADB funds. Moreover, an estimated 164 primary schools (56.7%) and 67 junior secondary schools (67%) are yet to be completed.

At individual school levels, progress towards achieving the outcomes in respect of rehabilitation was mixed. The new classroom blocks contributed to improved access and enrollment; in some cases, enrollment doubled following the intervention. In general, all five supported schools recorded pupil/teacher ratios within the stipulated project target of 45:1. Nevertheless, the mean pupil/teacher ratio masks disparities between classes in the schools. In fact, the increase in enrollment has resulted in higher pupil/teacher ratios in lower grades as available classroom spaces and supplies of furniture have not matched the concomitant increases

in enrollment. Further, the 4 schools which received full grant support failed to meet the project target of 2 pupils per set of desk and bench. The mean across the schools was 3 pupils per set of furniture. As a result, classes are over crowded, for example, as high as 79 pupils in class six at the REC primary school-Waterloo. Also, the supply of teachers' furniture was either inadequate or simply not delivered in some schools.

Moreover, while construction work had been completed in the four schools that received full grant support, the quality of work is far from satisfactory due to lack of proper monitoring and supervision mechanisms. Cracks were observed on the walls and floors of buildings while work on wells were incomplete at the time of data collection.

## 2) Teachers Housing

The provision of housing units for teachers in rural areas was critical for attracting qualified teachers. As at August 2009, only 3 housing units have been completed leaving 75% of the initial target still unaccomplished. The slow pace of implementation has been attributed to funding delays by ADB and other bureaucratic processes put in place for approval of project proposals and funding. It is likely that the target will not be accomplished by the end of the initial project cycle.

## 3) Textbooks and Teaching Learning Materials

The supply of core textbooks to target schools was widely perceived by teachers and administrators as the most significant contribution towards improvement of quality in learning. However, only 2 schools-REC primary school and RC Mathuraneh- attained the projected target of a set of 4 core textbooks per pupil. Other schools not only failed to meet this target but also reported gross inadequacies in the supply of textbooks. At the SDA primary school, for example, the ratio of textbooks per pupil was 1:4 in the four core subject areas. Moreover, it emerged also that teachers did not have the required skills to use textbooks to enhance learning. In effect, although the supply of textbooks had potential to help improve learning, the lack of skills and perhaps knowledge of

appropriate methods of teaching on the part of teachers mitigates any potential effects on learning.

Further, records made available by heads of sample schools revealed that besides the supply of core textbooks, nothing significant was done in terms of supplies of much needed teaching and learning materials. All six schools reported lack of schemes of work, teaching aids, teachers' guides, syllabuses, school registers, chalk, lesson notes, pens, pencils and reference books. Classrooms are bare and when they do have posters, these are old and dilapidated. Moreover, there were no libraries and resource rooms in all six schools studied and access to public libraries was minimal.

Finally, the study found that the lack of teaching and learning materials seriously affected teacher preparedness, competency, and efficacy to teach lessons even though teachers may have the requisite qualification, training, and experience. It appears the Ministry of Education expected schools to use fees subsidies to purchase these learning materials even though the funds either arrived six or more months late or were limited.

#### 4) Teacher Training, Readiness and Staff Development

According to the REBEP project manual, in-service teacher training of about 6,007 untrained and unqualified teachers was a critical component of the project strategy to achieve FQL. To date, 4,010 have been trained accounting for 67% of the project target. Also, based on relevant reports, the study established that 1,573 trainees who participated in the 2003-2004 REBEP training, a total of 93% of the UU teachers were at their posts- 532 in the Northern Region, 166 in the Western Area, 502 in the Southern Region, and 268 in the Eastern Region (UNICEF, 2008). The study, however, found that unless the pace of implementation picks up dramatically in the next few months, the project target may not be achieved within the project's five year life cycle (2003-2008).

Moreover, implementation of the teacher training component was fraught with design problems. In 3 out of the 5 sampled schools, only 2 teachers received training even though there were more untrained and unqualified teachers. At the RC primary school, Mathuraneh, for example, no teacher had been trained at the time of data collection in January 2009. Also, there was gross gender disparities in the proportion of male teachers trained: males accounted for about 82.5% of UU teachers trained compared to 17.5% for females (UNICEF, 2008).

Further, the training design did not have provision for subsequent step-down trainings at the school level, suggesting that the training exercise may have been essentially symbolic as a critical mass of teachers, both untrained and trained, lost out on the opportunity to upgrade their skills. Furthermore, serious questions were asked about the depth and scope of the training content or curriculum. The training sessions lasted for an average of four weeks per session (six days a week) focused on Language Arts, Mathematics, Science, Education, Social Studies, and Peace Education. Of particular significance was the fact that there was no follow-up mechanism to monitor any changes in the instructional practices of the trained teachers and changes in pedagogy emerging there-from.

Moreover, in terms of teacher quality, the findings reveal that at least 33% of the teaching staff in three schools was uncertified and unqualified-REC, SDA and KDEC primary schools. The percentage of uncertified teachers rose as high as 57% at SLMB primary school and 50% at RC school-Mathuraneh. Thus the level of teacher readiness for both certified and uncertified teachers in the sample schools is questionable as made evident by their instructional practices. In effect, teacher capacity and readiness remains a critical policy issue in these schools and perhaps across most primary schools across the country.

## 5) Instructional Practices of Teachers

Contrary to findings reported in an evaluation report of the REBEP teacher training component funded by UNICEF in 2008, this study determined that most primary school teachers in the study sample, including UU teachers that benefitted from the REBEP program, continue to utilize traditional teacher-centered pedagogy in lessons such as lectures. In fact, it was found that excessive questioning, chorus learning, lectures, writing notes on blackboard for pupils to copy, and improper use of textbooks were the daily and common instructional practices of teachers. Most of the teachers observed only utilized one or two methods that neither enhanced learner participation nor involved manipulation of any materials to enhance pupils' learning. The common instructional methods were question and answer. Instructional activities such as role plays, group work, writing assignments, administering examinations or other forms of assessments, and reviewing pupils' homework occurred less frequently if at all. Above all, teachers taught lessons with little supervision or no supervision by either head teachers or supervisors of schools; hence teachers were far more likely to be prepared to teach lessons.

Finally, teachers' time on task was found to be inadequate due to several factors such as public holidays, school induced closures (sports, religious observation, etc), public perceptions, teacher absenteeism due mainly to personal reasons, sickness, and low morale. On average teachers missed school and lessons five days per academic year. A World Bank study reports that from a possible 200 days of school time, an estimated 23 days are used up as public holidays or used for other school activities in Sierra Leone (World Bank, 2007).

## 6) Training of SMC and School Leadership

The study found that the 5 project supported schools established SMCs as required by REBEP but only 1 SMC member from each of 3 schools received training. While the SMC was established to serve as the executive board of each school, their role has been limited to advising

on issues related to teacher discipline, school attendance by pupils and teachers, and fund raising. The SMCs participate neither in budgetary decisions, curriculum related matters or teacher hire and transfer decisions. It was determined that the functions of the SMCs and to large extent head teachers were seriously undercut by either managers or proprietors of schools. As a result, head teachers felt disempowered in their leadership roles with administrative tasks being their main function. These findings equally applied to RC school, Police Barracks in Kambia.

#### 7) Community-School Relationship

The schools have traditionally had excellent relationships with their communities, mostly through the establishment of Parents- Teachers Associations (PTA). However, such a relationship has been restricted to support for school initiatives such as providing land for gardening, providing labor when necessary and supporting community teachers with incentives. Some schools have had more meaningful interactions with the community such as engaging in girls' education sensitization activities, establishing Mothers' Clubs, and jointly sponsoring tree planting activities in support of environmental education.

#### 8) Achievement of BOL and FQL

As outlined in Chapter Five, the criteria for attainment of a basic operational level in REBEP supported schools required meeting a number of outcome indicators by the end of the project cycle. Based on data collected from the 5 REBEP supported schools and analysis, it can be concluded that none of the 5 schools met all of the prescribed criteria. If anything, the construction of schools, attainment of a pupil/teacher ratio of 45:1, supply of core textbooks may have been accomplished in some of the schools. However, the resulting impact on school enrollment has only exacerbated the problem of overcrowding in classrooms and considerable in-school disparities in pupil/teacher ratios.

Moreover, deliverables such as teacher's housing units, inadequate furniture, incomplete water and sanitation facilities, inadequacy of core textbooks, lack of teaching and learning materials, the proportion of UU teachers still untrained, limited roles of SMCs, and limited capacity of district education officials to carry out supportive supervision of teachers remain serious challenges. Consequently, it is reasonable to conclude that attainment of the fundamental quality levels in the 5 supported schools is improbable even though the indicators were modest or basic.

#### 9) Performance of Schools in NPSE

- The study revealed that school performance in REBEP supported schools did not significantly change following intervention although there are signs of improvement in a few schools. Data showed that performance either declined in the 5 schools or remained unchanged. At the REC school, for example, the percentage of candidates who scored the required pass mark fell steadily from 81% in 2002 to 28% in 2006 and rose sharply to 86% in 2008. At SDA primary school, the pass rate fell from 100% in 2002 to 35% in 2008, indicating a failure rate of 65%.
- The performance at SLMB school was consistent at 100% in 2005 and 2006 before declining to 72% in 2008.
- Despite lack of REBEP inputs, RC school Police Barracks in Kambia performed much better with an overall pass rate of 85% during the period under study compared to 56% at REC, 61% at SDA, 69% at KDEC, and 77% at RC Mathuraneh primary schools. Only SLMB scored a higher pass rate of 89%.
- In all 6 schools sampled a greater proportion of candidates scored aggregates in the bottom score-sets; indicating a skewed distribution similar to the national trend. This proportion varied from year to year in each school.
- Performance in individual subject areas was abysmal across all 6 schools; a significant proportion of students failed to score 50% or above in either Mathematics or Science.
- There were no significant differences in the performance of girls and boys in the core subject areas-Mathematics, English, and Science. In some schools, girls out-performed boys, for example, at KDEC school-Kambia.
- Overall, in the short term, performance in the NPSE over the years may not have been significantly affected by the inputs and interventions of REBEP. The evidence shows that despite the lack of inputs to RC primary school, Police Barracks, performance was relatively better compared to REBEP supported schools. At the KDEC primary school, performance was commendable even though the intervention was limited to the supply of textbooks (91%) and teacher training (6%).

## Challenges and Opportunities

The intervention by the government with the support of donors through REBEP was not only timely for Sierra Leone's recovery but also a critical step towards meeting the EFA and MDG goals in 2015. The contribution of REBEP towards improvement of overall educational access and enrollment, especially for girls, remains indisputable. It might be too early to fully assess the impact of the intervention on Sierra Leone's development agenda.

Nevertheless, serious and critical reflection may be needed to determine the full impact of the program strategy and logic on educational quality in its most comprehensive sense- "what learners bring, environments, content, processes, and outcomes" (UNICEF, 2005, p. 5). While this assertion may be debatable, evidence adduced from this study indicates the relevance for a more comprehensive, manageable, and deliverable strategy for addressing the myriad of problems education systems in developing countries face. The provision of safer environments may be critical for expanding access, ensuring equity of access, but may not be the panacea for achieving quality education by 2015. As Verspoor (2003) noted, the focus should be multi-dimensional such that education systems create opportunities for children to learn; improve on instructional practices; manage the challenge of equity, increase school autonomy and flexibility; nurture community support; ensure realistic financial frameworks; and respond to HIV/AIDS and conflict situations. The goal, according to Verspoor, is to build a national strategic framework around these dimensions through building partnerships and networks if sub-Saharan Africa should achieve quality education by 2015.

Other educationists also advanced arguments for careful consideration of in-school or process-related factors in the design of programs that are intended to address issues of quality (Heneveld, 1994; Heneveld & Craig, 1996; Hanushek & Wosmann, 2007). Heneveld (1994) notes the importance of inputs factors such as provision of textbooks, teacher training, supervision and

community support but also acknowledges teaching and learning processes and the school climate as critical elements in the equation. Most recently, Hanushek and Woismann (2007) emphasized that “the cognitive skills of the population, rather than mere school enrollment, are powerfully related to individual earnings, to the distribution of income, and to economic growth” (p. 1). In effect, they conclude that programs directed at expanding school enrolment at the detriment of quality have not guaranteed better economic conditions in developing countries.

The issue is not about access or quality; rather how can both educational goals-expanding access and ensuring quality- complement each other and made achievable in the most cost-efficient manner. In the context of Sierra Leone, the need for expanding access after a devastating civil war was the overarching goal. But policy makers may have missed a golden opportunity to radically address other equally important if not critical elements that could potentially nullifying the gains made so far. These include review of the curriculum content in schools; remodeling teacher training approaches to respond to the demands of new and emerging pedagogies; enhancing and strengthening the capacity of supervisors of schools and other quality assurance officials; provision of adequate learning and teaching resources; institutionalizing school-college linkages to ensure mentorship and tutorship; and above all, substantially improving on the conditions of service of teachers including hiring and recruitment process. In order words, there is a critical need for a system-wide approach to the issue of quality over and beyond the primary school level. Already, the sign of a declining educational quality has reared its ugly head at both junior secondary and senior secondary school levels and in tertiary institutions as a result of which a commission of inquiry was set up by the government.

Moreover, REBEP laid a solid foundation for take-off; but urgent action is required if the tide should be turned in a positive and meaningful direction. The institution of a commission of inquiry by the government to investigate declining standards in schools and perhaps colleges in

August 2009 is indeed one major opportunity for systemic reform of the education sector in Sierra Leone. However, the findings in this study highlight the need to overcome a number of challenges for effective implementation of such a program in future.

First, the REBEP management and implementation process had multiple bureaucratic layers which ultimately plagued implementation as the interest of self-seeking stakeholders overshadowed the necessity to achieve overall project objectives in a timely and cost-efficient manner. The process for approval of project proposals was not only convoluted but also tedious and time consuming. There were two separate systems for approval of funding-the World Bank's and ADB's-each with a different set of regulatory procedures and demanding paper work. As a result, decisions taken by the project steering committee (PSC) such as approval of proposals were still subject to rigorous internal donor regulatory systems. This seriously affected the integrity of the entire project appraisal process put in place during development of the project in 2002. At the time of writing, a number of proposals for funding submitted by agencies and contractors from ADB supported districts were still in the pipeline for approval. It was also obvious that the multiple bureaucratic layers and regulatory procedures may not have helped minimize acts of corruption and mismanagement of project funds and resources provided to agencies, contractors, and project personnel. In short the multiple bureaucratic layers may not have stemmed corruption; on the contrary, corruptions may have spread both vertically and horizontally.

Moreover, monitoring and supervision of project activities as prescribed in REBEP demands submission of monthly reports to the PCU in an approved format. The Technical team at the PCU and the Planning and EMIS division carried out annual surveys of school facilities while the PCU and PSC compiled consolidated quarterly reports. This may look comprehensive on paper; however, monitoring of civil works was far from satisfactory. The quality of works was called into question several times in sampled schools but contractors failed to carry out much needed repairs or

maintenance. The result was heads of schools were not privy to details of the project proposals and the specific interventions therein. Contractors were therefore not accountable to school leaders and complaints of unsatisfactory civil works or even non-performance could only be channeled through inspectors of schools. Further, there were glaring inconsistencies in unit costs charged by different contractors or implementing agencies. Moreover, work on water wells which had started since 2005 were still incomplete yet no project officials had taken the necessary steps to redress the situation in the four sampled schools that received full grant support from REBEP.

Consequently, this rather loose monitoring mechanism ensured that the quality of structures constructed was quite often not commensurate with the huge amounts of funds provided.

Furthermore, there were glaring indications of misappropriation of core textbooks supplied to some schools. Although, heads of schools admitted receiving these books, balance stocks could not be verified because of poor record keeping and perhaps deliberate deception. A report by an independent human rights group, Campaign for Good Governance noted that there were fundamental leakages in the distribution channels of the Textbook Task Force of the Ministry of Education that was set to oversee the supply of textbooks (CGG, 2006). Textbooks supplied to schools and learning materials usually found their way in the 'black market' where they were sold at very high prices. This perhaps explains why head teachers could not accurately account for textbooks supplied.

Finally, the attempt to only train untrained and unqualified teachers has clearly not had the desired effect. One possible explanation was that some of the selected UU teachers were not qualified for recruitment in the first place. In one instance, a holder of an NPSE primary school certificate was registered for training (UNICEF, 2008) thereby making it difficult for the teacher to understand concepts readily. Other evaluation reports indicate that there were more UU teachers in the system than had been originally planned for. Further, the design of the training program did

not allow for follow-ups to monitor teachers' performance after the training. Moreover, mechanisms were not put in place to undertake subsequent step-down training in schools thus making the entire process symbolic and somehow dysfunctional.

### **Recommendations**

The purpose of this study was not to provide answers to the many and varied problems facing the education sector and system in Sierra Leone. It was simply an evaluative and exploratory venture with the objective to determine the effectiveness of a program strategy that was developed to ensure that schools attained a basic operational level as an indicator of fundamental quality. Moreover, the objective was also to determine to what extent, if any, the effects of REBEP intervention on learning achievement as defined by performance in the NPSE as one descriptor of educational quality in the sampled schools.

In the process of accomplishing these objectives, the findings from the study point to a much broader systemic problem that was well beyond any single programmatic action. In other words, recommendations emanating from the findings would only be meaningful if the wider political, socio-economic, and developmental objectives of the country are brought to bear on the situation. It is within this context that I propose the following having in mind the implications for future policy: a) recommendations that are specific to REBEP; and b) recommendations that address broader systemic issues in education in Sierra Leone.

a) REBEP specific recommendations:

- I. Disseminate the findings of this and other studies for wider consumption by stakeholders, interest groups, colleges, and the university.
- II. Undertake a summative evaluation of REBEP through wider and independent participation of stakeholders and facilitate sincere dialogue around the issues raised by this study and similar independent evaluative studies carried out in the past.
- III. Re-examine the conceptual underpinnings of REBEP strategy with a view to assessing the merit and worth of excessive emphasis on expanding educational access over and above ensuring quality in its most comprehensive form and definition.

- IV. The introduction of multiple layers of implementation, coordination, and management should be streamlined to allow for efficiency and efficacy. This would allow timely appraisal and approval processes, and cut down on bureaucratic stewardship. The Ministry of Education must by all accounts take ownership of project implementation
- V. Institute a more transparent and accountable monitoring and evaluation system that is accessible to project personnel, stakeholders, and beneficiaries. If possible provide an open forum for discussion of feedback. This double-loop approach will provide opportunity for learning lessons and incorporating them in implementation.
- VI. Beneficiary schools and entities must be privy to approved project proposals to facilitate monitoring of all components of the project but more especially civil works and delivery of goods.
- VII. Although, steps were taken to recover funds misappropriated by contractors and sub-contractors, the process was slow and the sanctions levied were not commensurate with the crimes committed.
- VIII. There is need to provide the necessary autonomy and authority to the project steering committee while putting in place mechanisms for accountability as prescribed within the laws of the country.
- IX. Ant new project should focus on school level processes to create the desired impact on quality of learning. These include greater investments in teachers and teacher development; capacity building for effective supervision and quality assurance; adequate supply of core textbooks; and supply of relevant teaching/learning materials;
- X. REBEP should now focus on teacher's instructional practices including any specific actions that could improve on teachers' time on task. This may not be specific to REBEP schools only.
- XI. Above all, the demands for quality education dictate a necessity for extension of REBEP or development of a second phase directed at quality assurance to consolidate any gains made in phase one.

b) System-wide Recommendations

- I. Institute a holistic reform of the entire education system; one that cuts across all sectors of the education spectrum-tertiary, secondary and primary levels. Any emerging system should consider the present manpower needs of the country; Sierra Leone's potential to compete in the global knowledge economy while ensuring that it is firmly anchored in information technology;
- II. Improve on teachers' conditions of service by reviewing the present agreement in line with present socio-economic realities of the country. It is about time for government to institute a Teachers' Service Commission to address the myriad of problems with the teaching service;

- III. Re-examine present recruitment process of teachers, head teachers, principals, supervisors, and inspectors of schools. It is about time that tenure is given to school heads, supervisors, and inspectors of schools based on performance criteria. The current system of recruiting retired head teachers to serve as supervisors has simply not paid off. Rather it has stifled promotional opportunities for younger, better qualified, and enterprising teachers in the school system.
- IV. Improve the capacity of administrative and technical staff at the Ministry of Education through recruitment of highly qualified personnel that are well paid.
- V. Provide new mandates for colleges and universities so that they respond to the current challenges and manpower needs of the country. This could be done through introduction of new graduate level courses, improved curriculum content, improved technology and pedagogy, and better and more efficient systems of assessment in line with international standards and practices.
- VI. Above all, provide an enabling policy environment for expansion, autonomy, and diversity.

### **The Last Word**

The above recommendation may not necessarily be the panacea to the numerous problems bedeviling the education system. Much broader issues of nepotism, tribalism, corruption and mismanagement in the political culture, good governance practices, accountability, transparency, and a determination to rebuild the nation for all would be required to actualize these recommendations. I believe the challenge for change starts with every Sierra Leonean.

In sum, given the present context in Sierra Leone and the country's desire to participate in the global knowledge economy demand urgent, collective and unequivocal action on the part of government, policy makers, educators, civil society and communities at large to ensure Sierra Leones achieves the EFA goals and MDG by 2015. Unless we act now, Sierra Leone could be one country former British Prime Minister, Gordon Brown, had in mind when he noted:

“But we need to act now - on current trends, getting all African children into school will take until 2100, and not 2015 as set out in the Millennium Development Goals.”

**APPENDIX A**

**SCHOOL PROFILE AND INVENTORY QUESTIONNAIRE**

**Interviewer:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**School:** \_\_\_\_\_ **Head Teacher:** \_\_\_\_\_

**School Population: Boys** \_\_\_\_\_ **Girls** \_\_\_\_\_ **Total** \_\_\_\_\_

**Teachers: Male** \_\_\_\_\_ **Female** \_\_\_\_\_ **Total** \_\_\_\_\_ **Pupil/Teacher Ratio:** \_\_\_\_\_

**A. School Structure and Infrastructure**

<b>Item</b>	<b>Before Intervention</b>	<b>After REBEP Intervention</b>
No. of Buildings		
No. of Classrooms		
School Toilets		
Water & Sanitation Facilities		
State of Buildings		
Teachers' Furniture-adequacy <ul style="list-style-type: none"> <li>• None</li> <li>• One set/ Teacher</li> </ul>		
Pupils/Furniture <ul style="list-style-type: none"> <li>• No. of Desks</li> <li>• No. of Chairs</li> </ul>		
Type of Civil Works <ul style="list-style-type: none"> <li>• Rehabilitation</li> <li>• Reconstruction</li> <li>• Construction</li> </ul>		

**Comments** \_\_\_\_\_  
 \_\_\_\_\_

**B. Learning and Teaching Resources**

<b>Textbooks</b>	<u><i>English</i></u>	<u><i>Maths</i></u>	<u><i>Science</i></u>	<u><i>Social Studies</i></u>
2002				
2003				
2004				
2005				
2006				
2007				
Textbooks Available				
	<u><i>None</i></u>	<u><i>Inadequate</i></u>	<u><i>Adequate</i></u>	<u><i>Surplus</i></u>
Notebooks				
Pens/Pencils				
Teaching Aids				

**C. Does this school have the following:**

- a) Head Teacher's office? 0 \_\_\_ No 1 \_\_\_ Yes
- b) Library? 0 \_\_\_ No 1 \_\_\_ Yes
- c) Resource Center 0 \_\_\_ No 1 \_\_\_ Yes
- d) School Garden? 0 \_\_\_ No 1 \_\_\_ Yes
- e) Staff Quarters 0 \_\_\_ No 1 \_\_\_ Yes

**Teachers on Roll**

No.	Class	Teacher's Name	Qualifications	Total Teaching Experiences	Years In School
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

**D. School Management**

- a) Does the school have a Management Committee? 0 \_\_\_ No 1 \_\_\_ Yes
- b) Is the School Management Committee functional? 0 \_\_\_ No 1 \_\_\_ Yes
- c) What decisions did the SMC participate in since REBEP started?
  - Staff Hire/Staff Transfer \_\_\_\_\_
  - Staff Housing \_\_\_\_\_
  - Staff Discipline \_\_\_\_\_
  - School Budget \_\_\_\_\_
  - Curriculum Matters \_\_\_\_\_
  - Infrastructure Development \_\_\_\_\_

**E. Parent/Teacher Association**

- Does the school have a functional PTA? 0 \_\_\_ No 1 \_\_\_ Yes
- What decisions did the PTA participate in since REBEP? (*Circle all that apply*)
  - Staff Hire/Staff Transfer \_\_\_\_\_
  - Staff Housing \_\_\_\_\_
  - Staff Discipline \_\_\_\_\_
  - School Budget \_\_\_\_\_
  - Curriculum Matters \_\_\_\_\_
  - Infrastructure Development \_\_\_\_\_
  - Labor Support \_\_\_\_\_

**F. REBEP Project Intervention**

- What year did the REBEP project begin intervention in this school? \_\_\_\_\_
- What specific projects were implemented since 2003? (*List all*)

No.	Project Title	Estimated Funding (Le)	Current Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## APPENDIX B

### OBSERVATION AND LESSON PLAN REVIEW QUESTIONNAIRE

Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

12. School \_\_\_\_\_ Class: \_\_\_\_\_ Roll: \_\_\_\_\_ Boys: \_\_\_\_\_ Girls: \_\_\_\_\_

13. Name of Teacher: \_\_\_\_\_ Sex: Male/Female: \_\_\_\_\_

14. TOPIC: \_\_\_\_\_ TIME: \_\_\_\_\_

<b>EVALUATION ITEM</b>	<b>Not Done (0)</b>	<b>Very Poor (1)</b>	<b>Weak (2)</b>	<b>Good (3)</b>	<b>Out-standing (4)</b>
<b>15. LESSON PLANNING AND PREPARATION</b>					
<b>1. Upkeep of records</b>					
a. Availability of schemes of work					
b. Quality of schemes of work					
c. Upkeep of records of work					
d. Availability of lesson plans					
e. Availability & maintenance of other classroom records					
<b>2. Suitability of specific objectives</b>					
a. Do objectives start with action verbs?					
b. Are objectives measurable?					
c. Are objectives realistic in terms of time?					
d. Are objectives attainable?					
<b>3. Suitability and adequacy of content</b>					
a. Is content suitable for age group					
b. Is content made relevant to learners' experiences and lives?					
<b>c. Is content adequate in terms of time?</b>					
d. Is content adequately developed from specific objectives?					
<b>4. Suitability &amp; adequacy of learning materials</b>					
a. Are teaching & learning aids indicated for lessons suitable?					
b. Are teaching/learning aids indicated from the local environment?					
<b>5. Suitability of methods</b>					
a. Are methods planned relevant and simulative?					
b. Are methods planned suitable for age group?					
c. Are teaching techniques planned?					
d. Is plan participatory?					
<b>6. Logical sequencing of teaching points</b>					
a. Points logically sequenced in levels of difficulty					
b. Sequenced in main components of introduction, development, and conclusion.					
<b>LESSON DELIVERY.</b>					
<b>1. Suitability, relevance, liveliness of introduction.</b>					
a. Lively, including activities for learners					
b. Relevance to new subject matter					
c. Short enough (5 - 7 minutes)					
<b>2. Ability to cope with individual differences</b>					
a. Handles responses of different pupils, gives rewards for efforts answers.					
b. Gives individual help during lessons					

<b>EVALUATION ITEM</b>	<b>Not Done (0)</b>	<b>Very Poor (1)</b>	<b>Weak (2)</b>	<b>Good (3)</b>	<b>Out-standing (4)</b>
<i>c. Utilizes pupils' incorrectly/partly correct responses to improve learning.</i>					
<i>d. Uses situations/pupils' experiences to motivate them to learn.</i>					
<b>3. Degree of pupils participation</b>					
<i>a. Individuals participate throughout the lesson</i>					
<i>b. Pupils initiate interactions with the teacher.</i>					
<i>c. Teacher promotes learning with minimal use of drilling and choral response.</i>					
<i>d. Pupils given a variety of exercises to practice skills.</i>					
<b>4 Appropriate use of language</b>					
<i>a. Language at the level of pupils, i.e. simple and easily understood</i>					
<i>b. Follows the language policy for instruction.</i>					
<i>c. Uses mother tongue to help the learner grasp a point being taught</i>					
<b>5. Effectiveness of questioning technique</b>					
<i>a. Use of question - pause – name (look for all three).</i>					
<i>b. Phrases questions clearly.</i>					
<i>c. Uses varied questions.</i>					
<i>d. Distribution of questions- random order.</i>					
<i>e. Adequacy of number of questions asked in the lesson</i>					
<b>6. Effectiveness of methods used</b>					
<i>a. Uses pair work</i>					
<i>b. Uses group work</i>					
<i>c. Uses role play</i>					
<i>d. Uses song</i>					
<i>e. Uses demonstration</i>					
<i>f. Uses varied approaches to deliver the subject matter</i>					
<i>g. Integrates other curriculum subjects into the lesson</i>					

(Adapted from IEQ II (USAID) survey instrument initially developed by Save the Children/US in Malawi, 1996)

**APPENDIX C**

**HEAD TEACHER QUESTIONNAIRE**

Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

16. School \_\_\_\_\_ Head Teacher: \_\_\_\_\_

17. Sex: Male /Female: \_\_\_\_\_ Teaching Experience: \_\_\_\_\_

18. =====

19. 1. What is your highest academic qualification?  
 1 \_\_\_\_\_ BA/BSc/B.Ed 2 \_\_\_\_\_ HTC (P)/HTC (S) 3 \_\_\_\_\_ A' Levels 4 \_\_\_\_\_ O' levels 5 \_\_\_\_\_ Form V 6. \_\_\_\_\_ Other

20. What type of training did you have prior to becoming a teacher?  
 1 \_\_\_\_\_ 3 yrTTC 2 \_\_\_\_\_ 2 yrTTC 3 \_\_\_\_\_ 1yr TTC 4 \_\_\_\_\_ 3 yrHTC 5 \_\_\_\_\_ 2 yrHTC 6. \_\_\_\_\_ 1 yr PGDE  
 7. \_\_\_\_\_ 4yr Bach in Ed. 8. \_\_\_\_\_ Other 9. \_\_\_\_\_ None

21. 3. As Head Teacher, what roles do you perform?  
 22. 1. \_\_\_\_\_ Sch. Admin 2. \_\_\_\_\_ Sch. Mangt. 3. \_\_\_\_\_ Admin/Mangt 4. \_\_\_\_\_ Teaching  
 23. 5. \_\_\_\_\_ Staff Supervision 6. \_\_\_\_\_ In-service Training

24. 4. Did you teach any class in the last 5 years? 1. \_\_\_\_\_ Yes 2. \_\_\_\_\_ No.

25. If yes what classes? 1 2 3 4 5 6 (circle all that apply)

26. 5. Did you attend any in-service training in the last Six years? 1. \_\_\_\_\_ Yes 2. \_\_\_\_\_ No

If yes, complete the following table:

Year	Type of Training	Training Objective*	Organizers	Relevancy to HT Job
2003				
2004				
2005				
2006				
2007				
2008				

\* Request copy of Training Curriculum

Comments: \_\_\_\_\_

27. Did any of the teachers attend in-service training in the last Six years? 1. \_\_\_\_\_ Yes 2. \_\_\_\_\_ No

If yes, complete the following table:

Year	Number of Teachers	Training Objective	Type* (TM/SM/CLM)	Organizers
2003				
2004				
2005				
2006				
2007				
2008				

\* TM-Teaching Methodology/Instructions SM-Subject Matter Related (Specify) CLM-Classroom Management

28. 7. Do you conduct In-service trainings for your teachers? 1. \_\_\_\_\_ Yes 2. \_\_\_\_\_ No.

If yes:

○ How frequently do you conduct in-service training?

1 \_\_\_\_\_ 1/yr 2 \_\_\_\_\_ 2/yr 3. \_\_\_\_\_ 3/yr 4. \_\_\_\_\_ 4/yr 5. \_\_\_\_\_ Monthly 6 \_\_\_\_\_ Every Term 7 \_\_\_\_\_ Others

○ When last did you carry out an in-service training? \_\_\_\_\_

○ Provide details on type of training and the objective: \_\_\_\_\_

- Who funded the training? 1. \_\_\_School 2. \_\_\_DEO 3. \_\_\_REBEP 4. \_\_\_NGO 5.
- Did Level 6 Teachers benefit from such training? 1. \_\_\_Yes 2. \_\_\_No.

29. 8. Counting this year, how many times did officials of the DEO visit your school? \_\_\_\_\_

30. 9. What was the purpose of the visits? (Circle all that apply)

1. Conduct in-service training for teachers (Explain) \_\_\_\_\_
2. Distribute Teaching/Learning Materials
3. Pay teachers salaries/allowances
4. \_\_\_Collect Data for head office
5. Monitor/supervise teachers
6. Attend SMC/PTA Meeting
7. \_\_\_Disseminate information

31. 10. In the past three months, have you observed any teaching lessons? 1. \_\_\_Yes 2. \_\_\_No.

a) If yes, in which teachers' classrooms?

No.	Name	Class Observed (circle one)
1.		1 2 3 4 5 6
2		1 2 3 4 5 6
3		1 2 3 4 5 6
4		1 2 3 4 5 6
5		1 2 3 4 5 6
6		1 2 3 4 5 6
7		1 2 3 4 5 6
8		1 2 3 4 5 6
9		1 2 3 4 5 6
10		1 2 3 4 5 6
11		1 2 3 4 5 6
12		1 2 3 4 5 6
13		1 2 3 4 5 6

Share your impressions on teacher's effectiveness and competence during the observations:

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32. 11. How many times this year have you held staff meetings at this school? \_\_\_\_\_

33. 12. What are the major issues that you discuss at staff meetings? (Do not prompt)

- a) Administrative procedures \_\_\_\_\_
- b) Curriculum content \_\_\_\_\_
- c) Teaching practices and methods \_\_\_\_\_
- d) Pupils' discipline \_\_\_\_\_
- e) Teacher's discipline \_\_\_\_\_
- f) Relationship with parents of pupils \_\_\_\_\_
- g) Relationship with community as a whole \_\_\_\_\_
- h) Other: \_\_\_\_\_

14 Does the school management committee function? 0 \_\_\_No 1 \_\_\_Yes

15. Has there been any change in the way the SMC functions since REBEP support started?

0 \_\_\_No 1 \_\_\_Yes

If yes, how has the SMC been different? \_\_\_\_\_

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16. Did SMC benefit from any training since REBEP intervention? 0 \_\_\_ No 1 \_\_\_ Yes

If yes, what type of training did the SMC benefit from? \_\_\_\_\_

17. How useful was the training to the functions of the SMC?

1. \_\_\_ Very Useful 2. \_\_\_ Useful 3. \_\_\_ Slightly Useful 4. \_\_\_ Barely Useful 5. \_\_\_ Not Useful

18. Does the PTA function? 0 \_\_\_ No 1 \_\_\_ Yes

If yes, how has the PTA different since REBEP intervention? \_\_\_\_\_  
\_\_\_\_\_

19. At your school, how often are PTA meetings held?

1. \_\_\_ Once/Term 2. \_\_\_ Twice/Term 3. \_\_\_ Thrice/Term 4. \_\_\_ Once/Month 5. \_\_\_ Never

20. How many families of your pupils are normally represented at a typical PTA meeting? 1 \_\_\_ A few 2. \_\_\_ Less than half 3. \_\_\_ About half 4 \_\_\_ Over half 5. \_\_\_ Almost all 6 \_\_\_ None

21. Did the community participate in educational activities in your school this term? 0 \_\_\_ No 1 \_\_\_ Yes

22. How often do you plan programs with the community to improve quality of learning/teaching?

1. \_\_\_ Never 2 \_\_\_ Once/Term 3. \_\_\_ Twice/Term 4. \_\_\_ Once/Month 5. \_\_\_ Once/Year 6. \_\_\_ Twice/Year

23. How many projects did you initiate jointly with the community since REBEP? \_\_\_\_\_

24. How many projects did you implement together with the community since REBEP? \_\_\_\_\_

*(List these projects)*

No.	Project/Program implemented with Community	Source of Funding

25. What areas of help or support do you need?

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

**APPENDIX D**  
**TEACHER QUESTIONNAIRE**

Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

34. School \_\_\_\_\_ Class: \_\_\_\_\_ Total Roll: \_\_\_\_\_ Boys: \_\_\_\_\_ Girls: \_\_\_\_\_

35. Name of Teacher: \_\_\_\_\_ Sex: Male/Female: \_\_\_\_\_

**36. A. Teacher Background**

37. When were you born? \_\_\_\_\_ day \_\_\_\_\_ month \_\_\_\_\_ year

1. Sex: 0 \_\_\_\_\_ Male 1 \_\_\_\_\_ Female

2. What languages do you speak and how well?

Language	Excellent (1)	Very Good (2)	Good (3)	Fair (4)
English				
Krio				
Other				

**38. B. Classroom Environment**

39. How many shifts do you work in this school?

40. 0 \_\_\_\_\_ School doesn't have shifts 1 \_\_\_\_\_ teach 1 of the 2 shifts 2 \_\_\_\_\_ teach both shifts

3. Most days, how many pupils come to your class? Boys \_\_\_\_\_ Girls \_\_\_\_\_ Total \_\_\_\_\_

4. Do you have teachers' guides for the following pupil textbooks?

a) Mathematics 0 \_\_\_\_\_ NO 1 \_\_\_\_\_ YES b) English 0 \_\_\_\_\_ NO 1 \_\_\_\_\_ YES c) Social Studies 0 \_\_\_\_\_ NO 1 \_\_\_\_\_ YES

d) Science 0 \_\_\_\_\_ NO 1 \_\_\_\_\_ YES

7. How would you describe the availability and adequacy of other teaching and learning materials such as chalk, teaching aids, blackboard, pen, pencils, erasers, etc?

1 \_\_\_\_\_ Most Adequate 2. \_\_\_\_\_ Adequate 3. \_\_\_\_\_ Slightly Adequate 4 \_\_\_\_\_ Inadequate

**C. Pedagogical Support**

8. In the past three years, how many in-service training sessions have you attended?

Organizer	Number sessions	Total Number of hours
MEST/MEYS (HQ)		
DEO-Inspectorate		
Head Teacher/School		
NGO-Specify		
UN Agency (Specify)		
REBEP		
OTHER (SPECIFY)		

9. During this year, how many times were you observed in your classrooms? \_\_\_\_\_ By whom? \_\_\_\_\_

41. Who provided you the greatest support in helping you improve the quality of with you teach? (*check one*)

0 \_\_\_\_\_ None 1 \_\_\_\_\_ Head Teacher 2 \_\_\_\_\_ Peers/Other teachers 3 \_\_\_\_\_ Inspectorate 4. REBEP PROS

11. How often do you receive help from the following people in order to improve your teaching skills?

	Never 0	Once each term 1	Once each month 2	2-3 times/ month 3	Once each week 4	2-3 times per week 5	Not Applic able
a) Head Teacher							
b) Peers/Other Teachers							
c) Inspector/Supervisors							
d) REBEP Facilitators							

42. What type of feedback do you get when a member of community or SMC observes you, if any?

0 \_\_\_\_\_ None 1 \_\_\_\_\_ Discussion of weak/strong points 2 \_\_\_\_\_ Suggestions for improvement

43. 3 Other: \_\_\_\_\_ 99 \_\_\_\_\_ Not applicable

44. Does the head teacher observe you? 0 \_\_\_\_\_ None 1 \_\_\_\_\_ Yes

If Yes, How often? 0 \_\_\_\_\_ Once/week 1 \_\_\_\_\_ At Least Once/2 Weeks 3 \_\_\_\_\_ Once/Term 4. \_\_\_\_\_ Twice/Term

5. \_\_\_\_\_ Once/Year 6. \_\_\_\_\_ At Least Twice/Year

45. What type of feedback do you get when the head teacher observes you?

- 0 \_\_\_ None 1 \_\_\_ Discussion of weak/strong points 2 \_\_\_ Suggestions for improvement  
 3 Other: \_\_\_\_\_ 99 \_\_\_ Not applicable
46. Does your school have a Mentor Teacher? 0 \_\_\_ None 1 \_\_\_ Yes  
 If Yes, what type of help do you get from the mentor teacher?  
 0 \_\_\_ None 1 \_\_\_ Discussion of weak/strong points 2 \_\_\_ Suggestions for improvement  
 3 Other: \_\_\_\_\_ 99 \_\_\_ Not applicable
47. Does your head teacher review your lesson plans before you teach the lessons? 0 \_\_\_ No 1 \_\_\_ Yes
48. What sort of feedback does the head teacher provide after the review?  
 0 \_\_\_ None 1 \_\_\_ Discussion of weak/strong points 2 \_\_\_ Suggestions for improvement  
 3 Other: \_\_\_\_\_ 99 \_\_\_ Not applicable
49. What sort of feedback does the mentor teacher provide?  
 0 \_\_\_ None 1 \_\_\_ Discussion of weak/strong points 2 \_\_\_ Suggestions for improvement  
 3 Other: \_\_\_\_\_ 99 \_\_\_ Not applicable
50. D. Teaching Practices

54. How often do you use the following methods in teaching your class?

	<u>Never</u> (0)	<u>1-3 times</u> <u>per term</u> (1)	<u>1-3 times</u> <u>each month</u> (2)	<u>Once/</u> <u>week</u> (3)	<u>2-3 times</u> <u>per week</u> (4)	<u>Daily</u> (5)
a. Lecture to the whole class						
b. Pupils copy from blackboard						
c. Pupils use textbooks						
d. Question pupils' comprehension						
e. Encourage pupil questions						
f. Role play						
g. Pupils work in small groups under group leaders						
h. Pupils work in pairs						
i. Singing						
j. Review pupil homework						
k. Pupils write assignments						
l. Administer exams or tests						
m. Use teaching and learning aids you made yourself						
n. Pupils use teaching and learning aids you/they made						

55. How many times did you assign homework in the last five school days? \_\_\_\_\_  
 Did you review the answers with the class? 0 \_\_\_ None 1. \_\_\_ Yes
56. During this full term you taught, how many days of teaching did you miss? \_\_\_\_\_  
 Why? 1. \_\_\_ Public Holiday 2. \_\_\_ School Decision 3. \_\_\_ Crisis 4. \_\_\_ Natural Factors 5. \_\_\_ Time Off  
 Request 6. \_\_\_ Personal 7. \_\_\_ Others
57. Do you use teacher's guides to prepare for lessons? 0 \_\_\_ No 2. \_\_\_ Yes
58. Do you write lesson notes? 0. \_\_\_ No 2. \_\_\_ Yes If, No, why? \_\_\_\_\_
59. If Yes, when last did you prepare a lesson plan and in what subjects? (Please verify)

Subject	Date Lesson Plan Prepared	Class Level
Mathematics		
English		
Science		
Social Studies		

**F. Administrative Issues**

60. How often do you have staff meetings per term at this school? \_\_\_\_\_
61. What are the major issues that you discuss at the staff meetings? (Do not prompt)
1. Administrative procedures \_\_\_\_\_
  2. Curriculum content \_\_\_\_\_
  3. Teaching practices and methods \_\_\_\_\_
  4. Student discipline \_\_\_\_\_

- 5. Teacher discipline \_\_\_\_\_
- 6. Relationship with parents/Guardians of pupils \_\_\_\_\_
- 7. Relationship with community as a whole \_\_\_\_\_
- 8. Other: \_\_\_\_\_

26a. Do you ever have opportunity to lead or chair staff meetings?

0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes If Yes, how often? \_\_\_\_\_

26b. Do other teachers ever have opportunity to lead or chair staff meetings? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes

If Yes, how often? \_\_\_\_\_

### G. Relationship with Community

62. How often do you meet with the parents of your pupils to discuss the following aspects of their children's education?

	63. Never (0)	Once a term (1)	Twice a term (2)	Once a month (3)	Every 2 weeks (4)	Weekly (5)
a) Absence						
b) Performance						
c) Drop out						
d) Discipline						
e) Health						

64. How often are PTA meetings held at your school?

0. \_\_\_\_\_ Never 1. \_\_\_\_\_ Once per term 2. \_\_\_\_\_ Twice a term 3. \_\_\_\_\_ Once a Month 4. \_\_\_\_\_ Once/year

65. How often do you plan with the community for activities to improve learning quality at your school?

0. \_\_\_\_\_ Never 1. \_\_\_\_\_ Weekly 2. \_\_\_\_\_ Once/Month 3. \_\_\_\_\_ Once/Term 4. \_\_\_\_\_ Twice/Term 5. \_\_\_\_\_ Thrice/Term

66. Have you ever involved community members in teaching? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes

If yes, how often? 1. \_\_\_\_\_ Weekly 2. \_\_\_\_\_ Once/Month 3. \_\_\_\_\_ Once/Term 4. \_\_\_\_\_ Twice/Term 5. \_\_\_\_\_ Thrice/Term

67. If yes, in which subjects? \_\_\_\_\_

### H. Textbooks

68. Do you use the **Mathematics** books to teach? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes ( if no ,skip to f )

a) How do you use it? \_\_\_\_\_

b) What unit are you on now (title or chapter) \_\_\_\_\_

c) Do pupils ever take home Maths Text? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes (if no, reason \_\_\_\_\_)

d) How do you keep track of the Maths Text books? \_\_\_\_\_

e) Are there sufficient Maths textbooks for every child to be assigned a book? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes

69. Do you use any **English** books to teach English? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes ( if no ,skip to f )

a) How do you use it? \_\_\_\_\_

b) What unit are you on now (Title or Chapter) \_\_\_\_\_

c) Do pupils ever take home the English Text? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes (if no, reason \_\_\_\_\_)

d) How do you keep track of the English Text books? \_\_\_\_\_

e) Are there sufficient English textbooks for every child to be assigned a book? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes

70. Do you use the Social Studies books to teach? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes ( if no ,skip to f )

a) How do you use? \_\_\_\_\_

b) What unit are you on now (Title or Chapter) \_\_\_\_\_

c) Do pupils ever take home the Social Studies Text? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes (if no, reason \_\_\_\_\_)

d) How do you keep track of the Social Studies Text books? \_\_\_\_\_

e) Are there sufficient Social Studies Text books for every child to be assigned a book? 0. \_\_\_\_\_ No 1. \_\_\_\_\_ Yes

### I. Education and Training

71. How many years of school did you complete? \_\_\_\_\_

72. What is your highest academic qualification? 1. \_\_\_\_\_ JSS 2. \_\_\_\_\_ Form V 3. \_\_\_\_\_ O' levels (4 Subs) 4. \_\_\_\_\_ SSS

5. \_\_\_\_\_ TC 6. \_\_\_\_\_ HTC (Prim/Sec.) 7. \_\_\_\_\_ BA/BSc/BEd 8. \_\_\_\_\_ MA/MEd/MSc \_\_\_\_\_

73. What type of training did you have prior to becoming a teacher? 0. \_\_\_\_\_ None 1. \_\_\_\_\_ 2 yr TTC 2. \_\_\_\_\_ 3 Yr TTC 4. \_\_\_\_\_

\_\_\_\_\_ 2yr HTC 5. \_\_\_\_\_ 3 yr HTC 6. \_\_\_\_\_ 3 yr BA/BSc/BEd 7. \_\_\_\_\_ 4 yr BA/BSc/BEd 8. \_\_\_\_\_ 2yr MEd/MA/MSc

74. Counting this year, how many years have you been teaching? \_\_\_\_\_

75. Counting this year, how many years have you been teaching at this school? \_\_\_\_\_

76. When last were you promoted? \_\_\_\_\_

77. What is your professional qualification? \_\_\_\_\_

1. \_\_\_\_ UU 2. \_\_\_\_ Assistant Teacher 3. \_\_\_\_ Teacher 4. \_\_\_\_ Senior Teacher 5. \_\_\_\_ Deputy Head Tr.

**J. Conditions of Service**

78. What are your current Gross and Net Salary per month? a) Gross Salary/Month: \_\_\_\_\_ b) Net Salary/Month \_\_\_\_\_
79. How regularly are salaries paid per month?  
 1. \_\_\_\_ Never on time 2. \_\_\_\_ 1 week late 3. \_\_\_\_ At least 2 weeks late 4. \_\_\_\_ At least 1 month late 5. \_\_\_\_ Promptly
80. What reasons are normally given for late payment of salaries? \_\_\_\_\_
81. When last did you receive a pay increase? (State Month and Year) \_\_\_\_\_
82. In addition to salaries, what other incentives does the school/PTA/SMC offer you and how often?  
 \_\_\_\_\_
83. Does the school offer you Housing? 0 \_\_\_\_ No. 1. \_\_\_\_ Yes (If yes, is this free? \_\_\_\_\_)
84. Does the school offer you Medical assistance? 0. \_\_\_\_ No 1 \_\_\_\_ Yes (If yes, is this free? \_\_\_\_\_)
85. Does the school offer you Remote allowance? 0. \_\_\_\_ No 1 \_\_\_\_ Yes (If yes, how often? \_\_\_\_\_)
86. Does the school offer you Transportation allowance? 0 \_\_\_\_ No 1 \_\_\_\_ Yes (If yes, how often? \_\_\_\_\_)
87. If you had the choice, would you leave teaching Today for any other profession? 1. \_\_\_\_ I Will 2. \_\_\_\_ I Won't 3. \_\_\_\_ Depends on type of job (Explain why \_\_\_\_\_)

**K. General**

88. What would you suggest to improve on teachers performance in this school job? **List in order of priority**  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_
89. What does the school need to do to improve on student's performance in the NPSE?  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

54. For future support, what areas of help do **You Need**?

	No help needed	Some help needed	Most help needed
a. Preparation of Lessons Plans/Records			
b. Classroom Management (large vs small)			
c. Using locally available materials			
d. Using child centered methodology			
e. Teaching Math			
f. Teaching English			
g. Teaching Science			
h. Teaching Social Studies			
i. Motivating girls more in the classroom			
j. Engaging the community in improving quality			
k. Other (Specify)			

**Comments/Feedback?** \_\_\_\_\_

*(Adapted from IEQ II (USAID) survey instrument initially developed by Save the Children/US in Malawi, 1996)*

APPENDIX E

HEAD TEACHER IN-DEPTH INTERVIEW GUIDE

Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

90.

91. School \_\_\_\_\_ District: \_\_\_\_\_

92. Name of Head Teacher: \_\_\_\_\_ Sex: Male/Female: \_\_\_\_\_

=====

1. What was the situation of your school in terms of buildings and infrastructure before 2003.
2. How did the school benefit in terms of support from either the government or NGOs or the local community following REBEP? List all interventions. Explain type and amount of support.
3. What effect did such support have on enrollment and student performance in the NPSE?
4. Turning our attention to resources-school supplies, learning materials, etc. how much support did it receive in the years prior to REBEP intervention and after? By whom?
5. In your estimation, did this have any effect on learning achievement and is there any evidence to support this claim?
6. Staff development-what staff development or teacher training activities were carried out between 2000 and 2003? What was the focus of the training in terms curriculum, target group, etc.?
7. What training activity if any was carried out by REBEP project? How beneficial was the training to teachers and to the quality of learning?
8. How did you administer and manage the school before and after REBEP? Were the SMC and PTA functional? How?
9. Are there any differences in teachers' attendance or motivation? What obstacles do you face in motivating your teachers? What strategies have you found to overcome these obstacles?
10. How do you determine what support or training a teacher needs?
11. How often do you observe a lesson taught by each teacher in your school?
12. By your estimation, did your school fulfill the criteria for attaining the basic operational level and the FQL? If yes, how? If no, why not?
13. Do you wish to add anything else of significance to this study?

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