EGRA Plus: Liberia

Annual Report
October 2008–September 2009

Early Grade Reading Assessment (EGRA) Plus: Liberia
EdData II Task Number 6
Contract Number EHC-E-06-04-00004-00
Strategic Objective 3
October 31, 2009

This publication was produced for review by the United States Agency for International Development. It was prepared by RTI International and the Liberian Education Trust.

EGRA Plus: Liberia

Annual Report

October 2008–September 2009

Contract EHC-E-06-04-00004-00
October 31, 2009

Prepared for
USAID/Liberia

Prepared by
RTI International
3040 Cornwallis Road
Post Office Box 12194
Research Triangle Park, NC 27709-2194

RTI International is a trade name of Research Triangle Institute.

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Table of Contents

Exhibits iv

Abbreviations v

Key Project Participants vi

I. Overview of Significant EGRA Plus: Liberia Accomplishments 1

II. EGRA Plus: Liberia—Overview 6

III. Implementation of EGRA Plus: Liberia 10
- III.1. Project management and systems improvement 10
  - Project and subcontractor mobilization 10
  - LET staffing 10
  - Select a sample of schools for EGRA Plus: Liberia program 12
  - Selection of districts 12
  - Selection of schools within clusters 14
  - EGRA Plus: Liberia official launch and signing of MoU 15
  - Performance Monitoring Plan (PMP) 16
  - LET systems improvement 17
- III.2. EGRA assessments 20
  - Development and adjustment of the EGRA instruments 20
  - EGRA assessor training 23
  - EGRA data collection 25
  - EGRA data entry 27
  - Report writing 27
- III.3. Reading intervention: Design and implementation 28
  - Intervention design 28
  - Intervention implementation 30
  - LI implementation efforts 33
- III.4. Project technical and management support 34
  - Technical and management visits 34
- III.4. Improved student reading performance 36
- III.5. Capacity-building efforts for MOE and sustainability of reading efforts 44

V. Project Deliverables–Year 1 47

VI. Progress on Project Performance Indicators 50

VII. Next Quarter Activities (October–December 2009) 62

Exhibits

Exhibit 1. The continuous cycle of improving student learning.....6
Exhibit 2. Targeted districts and schools.....8
Exhibit 3. Project positions and reporting lines.....12
Exhibit 4. The EGRA Plus: Liberia Results Framework.....17
Exhibit 5. Review of Instrument Components 21
Exhibit 6. Selection of Coaches.....30
Exhibit 7. Oral reading fluency scores compared to international benchmarks.....41
Exhibit 8. Oral reading fluency scores in Liberia compared to other developing countries.....42
Exhibit 9. Progress toward project deliverables–Year 1 47
Exhibit 10. Performance indicators tailored for EGRA Plus: Liberia.....51
Exhibit 11. Planned activities for October–December 2009 62
Exhibit 12. Accrued and planned expenditures 63

Abbreviations

BPA	Blanket Purchase Agreement
CDIE	[USAID] Center for Development Information and Evaluation
CEO	County Education Officer
COTR	Contracting Officer's Technical Representative
cwpm	correct words per minute
DEO	District Education Officer
EGR	Early Grade Reading
EGRA	Early Grade Reading Assessment
EMIS	education management information system
FI	Full Intervention [schools]
IR	Intermediate result
LET	Liberian Education Trust
LI	Light Intervention [schools]
M&E	monitoring and evaluation
MOE	Ministry of Education
MoU	Memorandum of Understanding
n/a	not applicable
NGO	nongovernmental organization
PAS	[RTI] Project Administration Specialist
PMP	Performance Monitoring Plan
PTA	parent-teacher association
QPR	Quarterly Performance Report
SO	Strategic Objective
TBD	to be determined
USAID	United States Agency for International Development
USG	U.S. Government

Key Project Participants

RTI International
Luis Crouch, Principal Investigator
Medina Korda, Task Coordinator
Marcia Davidson, Early Grade Reading Expert
Eileen Reynolds, Monitoring and Evaluation Specialist
Anudari Altangerel, Project Administration Specialist

Liberian Education Trust
Evelyn Kandakai, Project Supervisor
Ollie White, Technical Coordinator
Eli Lumei, Assistant to Technical Coordinator
David Walton, Finance Director
Toe Adolphus, Accountant
Moulton Seward, Office Manager

Ministry of Education
James E. Roberts, Deputy Minister for Policy and Planning
Hester Williams-Catakaw, Deputy Minister for Curriculum and Instruction
Rosaline Sherman, Primary Education Department Director
Isaac Fufflay, Reading Expert
Farwenee Dormu, Education Management Information System (EMIS) Administrator

United States Agency for International Development (USAID) and other U.S. Government
George ("Gib") Brown, USAID/Liberia Contracting Officer's Technical Representative (COTR)
Miriam White, USAID/Liberia COTR
Margaret Sancho-Morris, USAID/Liberia, Education Team Leader
Luann Gronhovd, USAID/Liberia Acting Education Team Leader
Mardea Nyumah, USAID/Liberia COTR

This report summarizes activities for the Early Grade Reading Assessment (EGRA) Plus: Liberia program, under United States Agency for International Development (USAID) Contract Number Contract EHC-E-06-04-00004-00 for the period October 7, 2008, to September 30, 2009.

I. Overview of Significant EGRA Plus: Liberia Accomplishments

The accomplishments summarized here are grouped to facilitate reading and are listed in random order.

Student Reading Performance Improved

The overall goal of the project is to improve student reading performance in a number of targeted schools. After approximately 3.5 months of intervention, students in treatment schools have outperformed control schools on all tasks that were tested using the EGRA assessment tool. While details will be discussed in forthcoming sections, here we provide a brief summary of Year 1 student reading results:

- **Letter knowledge:** At the baseline assessment, Liberian children are capable of identifying the names of letters for the most part, with the average Grade 2 control child identifying 57.9 letters in a minute and the average Grade 3 child identifying 69.0 letters. At the mid-term, students in Grade 2 in full treatment schools showed a 51.9% increase in letters read, and Grade 3 students increased by 42.4%. Interestingly, children in light treatment schools increased their scores over baseline by 36.4% and 32.5% in Grade 2 and Grade 3, respectively. These were larger impacts than we expected, and with respect to program impact, the increases had between a .47 Standard Deviation and .75 SD effect size, remarkably large.
- **Phonemic awareness:** Program impact on phonemic awareness was more moderate. Combining scores on Grade 2 and 3 shows that the number of sounds identified increased by 29.8% and 16.9% in full and light treatment schools, with an effect size of .22 SD and .06 SD, respectively.
- **Familiar words:** For familiar words, children in full treatment schools increased by 68.5% and light treatment schools by 54.2%. Since control schools increased their skills as well, the effect size was .09 and .05 SD, still notable, but not very large.
- **Unfamiliar (non-sense) words:** For unfamiliar words, both control and light treatment schools decreased the number of words read per minute between baseline and mid-term, with light treatment schools decreasing by 22.5%. On the other hand, full treatment schools increased by 78.7%, an increase of 1.5 words per minute on a baseline of 1.8 words. The effect size for full treatment schools was .25 SD.
- **Reading passage and comprehension:** Compared against baseline, full treatment children increased the number of passage words read correctly by

51.2%, while light treatment schools increased by 28.9%. Substantively, this means that full treatment schools increased their number of words read from 19.4 to 29.5 words per minute, while light treatment increased from 21.0 to 27.1. Compared against the gains for control schools, these impacts are strong and positive, of .42 SD and .19 SD, for full and light treatment schools. This means that at mid-term, children in full treatment schools were reading 7.2 words more per minute than those in control (29.5 compared to 21.0). The gap was also large for light treatment schools, with a difference of 6.1 words (27.1 compared to 21.0). This analysis shows clearly that there were moderate absolute gains, as well as significant program effects. As for comprehension, comparing the mid-term and baseline assessment scores, we find that full treatment schools increased their scores by 1.6% over baseline, while light treatment scores decreased by a 18.2%. This was less than the control schools decrease of 30.8%. This means that, at mid-term, children in full treatment schools scored 6.6 percentage points higher than those in control, with light treatment school students scoring 4.4 points higher. The program's effect size was .34 SD and .13 SD for full and light treatment schools. This equates to an increase of 8.2 percentage points more than control for full treatment and 3.2 percentage points more than control for light treatment

- **Listening comprehension:** For listening comprehension, the increases for full and light treatment schools were 128.3% and 130.4%, respectively. In fact, the scores increased from 34.3% to 78.3% correct for full schools and 33.6 to 77.5% for light treatment schools, large increases both. It should be noted that control schools increased their scores by 103.9%, so only be taking into account the baseline scores can a true program effect be estimated. Substantively, full treatment schools increased by 9.9% and light treatment schools by 9.8% more than control schools, an effect size of .33 SD and .32 SD, respectively.

Project Mobilization and Management

- **Project and subcontractor mobilization.** Mobilizing the EGRA Plus: Liberia Program and RTI's subcontractor—the Liberian Education Trust (LET)—took place in the last two weeks of October 2008. The project was quickly mobilized, resulting in timely and uninterrupted implementation of the planned activities. For example, our target grade 2 and grade 3 teachers in Full Intervention (FI) schools were trained and baseline data was collected in all 180 schools before December 25, 2008.

- **EGRA Plus: Liberia official launch.** The project was officially launched on November 14, 2008, at Precious Andrews Hall in Monrovia, Liberia. Close to 100 participants (inclusive of the project staff) were present. Journalists were invited as well, which resulted in a couple of articles published in both print and Web-based media. The launch included several working sessions, during which we collected input from all stakeholders with respect to project implementation.

- **RTI–Ministry of Education (MOE) Memorandum of Understanding (MoU).** During the EGRA Plus: Liberia project launch event on November 14, 2008, RTI and

the MOE in Liberia signed an MoU that set the foundation for collaboration between RTI and MOE.

- **Project management and systems improvement:** As per the agreement with USAID, RTI provided support needed by the LET to improve its financial management systems and to deepen its skills in monitoring and evaluation (M&E), technical aspects of the project, and supervision and management. The support to the EGRA team was provided by RTI staff specializing in financial management, project management, and M&E. The EGRA team has made huge progress and proven to be a reliable partner.
- **Performance Monitoring Plan (PMP).** RTI's M&E Specialist, Ms. Eileen Reynolds, assisted the EGRA team with development and submission of the project's PMP.

Early Grade Reading Assessments (EGRA): Data Collection

- **EGRA data collection.** The baseline assessment was completed as scheduled in the workplan. Out of 180 target schools, the EGRA assessors reached and assessed 176 schools. For the four schools that were not reached during the baseline, two turned out not to exist and the other two had low enrollments. Their replacement schools were assessed in January 2009. A total of 28 participants were trained (inclusive of MOE staff), and a total of 18 enumerators (nine teams of two assessors) were selected and engaged to collect data over the period of four weeks. The majority of trained enumerators were from the MOE staff. Dr. Luis Crouch, the project's Principal Investigator, assisted the MOE's head of education management information systems (EMIS), Mr. Farwenee Dormu, to adjust the EGRA Plus: Liberia data entry application that was developed in June 2008 with support from RTI. Data entry commenced in the middle of December 2008, and ended in January 19, 2009. It needs to be noted that the project assisted the MOE in developing its first data entry application since the end of the war in Liberia and that the accuracy of data entry improved by 100% since June 2008. Data were cleaned and analyzed in late March and April 2009. For each assessment conducted, the MOE signed letters of support for the EGRA data collection to be presented to District Education Officers (DEOs), principals, and teachers in target schools.
- **Midterm assessment:** The EGRA team adjusted and calibrated the assessment tools through a mini-pilot in four schools. The instruments for the midterm assessment are fully comparable to those of the baseline assessment. A total of 47 assessor candidates were trained to administer the EGRA. Using the interrater reliability tools, the EGRA team chose the best 18 assessors, who were then deployed for data collection.[1] The data collectors reached 179 out of 180 target schools and completed their work in four weeks.[2] RTI hired the services of a software programmer to develop EGRA data entry software in Visual Basic that would reduce the time for data entry to a third of what would have been needed previously. Data entry was performed in August and early

[1] The idea behind the interrater tool is that a person—usually the trainer—is chosen to represent the "gold standard." This person pretends to be a student and then intentionally makes a number of mistakes in a given instrument. The closer the assessor is to the gold standard, the better his/her performance is. In other words, if the trainer made four intentional reading errors, then all assessors should have caught the same mistakes.
[2] Assessors could not reach one school because of the hard road conditions at the time of the assessment.

September 2009. A draft analytic brief was developed in September 2009 and final report will be submitted in October 2009.

- **Informal and periodic qualitative assessment.** EGRA Coaches visited their assigned schools 2–3 times per month after schools opened in January 2009. During one of these visits, Coaches, with the support from the project team, conducted informal assessments to determine student progress. The assessments focused on letter knowledge. The analysis of this data indicated improvements in this reading skill.

Early Grade Interventions in Reading (EGIR)

- **Reading intervention materials.** With support from the Task Coordinator Ms. Medina Korda and Principal Investigator Dr. Luis Crouch, the RTI Early Grade Reading (EGR) Expert Dr. Marcia Davidson (University of Utah) finalized the development of reading intervention resource materials. Manuals and supplementary materials have been developed for both Light and Full Intervention schools. The selection of decodable books as well as other student resource materials was presented to and approved by the Contracting Officer's Technical Representative (COTR) and the MOE's Deputy Minister for Instruction, Ms. Hester Williams-Catakaw.
- **Intervention adjustments.** Invaluable information and lessons learned with respect to the effectiveness and ease of implementation had been collected since the outset of the reading intervention implementation. These were used by the EGRA team in the third quarter to adjust the intervention in order to maximize the impact in the last year of the project.
- **Intervention implementation.**
    - **Selection of Coaches**: The EGRA team identified and hired 15 Coaches (trainers of teachers) to support grade 2 and grade 3 teachers in treatment schools. The Coaches were selected using a three-stage approach: first round of short-listing based on a review of resumes, second round of short-listing through interviews, and final selection based on candidates' performance during their reading instruction workshop. Twenty-five candidates for the position of Coach were trained during a five-day workshop, and 15 best candidates were chosen by the end of the workshop.
    - **Training**. The first reading workshop was facilitated by Dr. Davidson, RTI's EGR expert, with support from the EGRA Technical Coordinator, Ms. Ollie White, and Ms. Korda. Support was also provided by the MOE's EGRA Core Team. By the end of the workshop, the MOE EGRA Team had arranged the signing of letters of support for the implementation of the reading intervention. The letters were delivered by the MOE to the County Education Officers (CEOs), while the Coaches delivered these to DEOs and to principals and teachers in the target schools
    - **Deployment of Coaches.** Upon the completion of training for Coaches but before their deployment, the EGRA team organized an additional day of training to firm up the plans and protocol for a five-day training for teachers in

target schools, as well as for equipping Coaches with needed resource materials. The Coaches deployed to their target districts in the second week of December 2008.

- **Training of grade 2 and grade 3 teachers.** Coaches are responsible for training teachers in both FI and Light Intervention (LI) schools. The training of FI grade 2 and grade 3 teachers took place right before the teachers went on the school break and the holiday season in December 2008. The training of teachers in LI schools took place as soon as schools opened in 2009.
- **Continuous support of teachers.** Coaches visited FI schools 2–3 times per month, while the visits to LI schools were conducted once per month, usually timed around the exam periods. To ensure consistency of support, visits followed a schedule and scope of work determined by the workplan.
- **Support to Coaches.** The EGRA technical coordinator ensured that continuous support was provided to Coaches via phone and technical and management visits. Coaches based close to the project office in Monrovia received support there. The EGRA team visited Coaches two times in the second quarter. The goals of these visits were to provide additional support and training to Coaches, distribute necessary materials and forms, and visit 5–6 treatment schools.
- **Reading Retreat for Coaches.** RTI's EGR Expert, Dr. Marcia Davidson, facilitated a three-day workshop in April 2009 during which lessons learned and challenges were discussed with Coaches and MOE representatives. Conducting such a retreat midway through the academic year proved to be crucial for gathering needed programming information, and a similar workshop will be held in December 2009 at the end of Semester 1 of the 2009/10 academic year.
- **Refresher reading workshop for Coaches.** In August 2009, the EGRA team organized a refresher reading workshop for Coaches and DEOs from the EGRA districts. The workshop was facilitated by Dr. Davidson, with support from the MOE EGRA team and the project staff.
- **Refresher training for grade 2 and grade 3 teachers.** All of the teachers in FI schools were trained right before the start of new 2009/2010 academic year in September 2009. At this time, the teacher kits, children's books, and other resource materials were distributed.

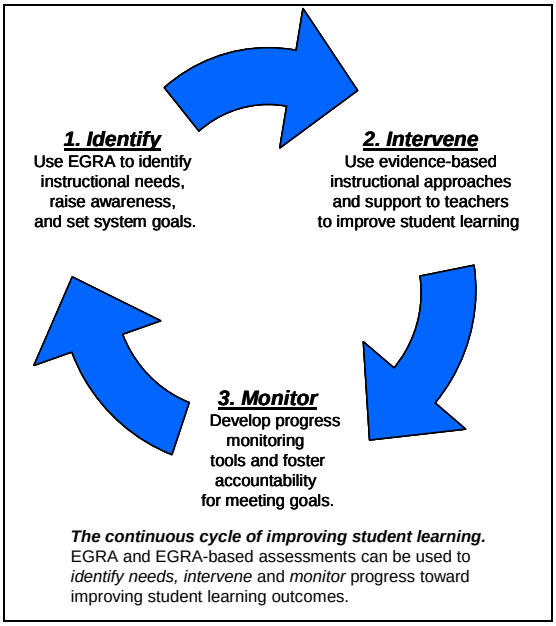
- **Capacity-building efforts of the MOE staff.** The project has provided opportunities for MOE staff to enhance their skills in assessment and improvement of student reading skills through a series of workshops. Based on the interest, discussions with respect to creating more opportunities for building the capacity of a larger number of MOE staff were held with the MOE. Several avenues were discussed and a workplan for creating more opportunities for MOE staff involvement was developed.

  The sections below present additional details.

II. EGRA Plus: Liberia—Overview

EGRA Plus: Liberia follows a randomized controlled trial by which the target schools will be classified into control and treatment schools. As depicted in ***Exhibit 1,*** EGRA Plus: Liberia fits into a complete cycle of learning support and improvement. It is used as a comprehensive approach to improving student reading skills, with the first step being an overall system-level diagnosis and identification of areas for improvement. Based on the assessment results, EGRA Plus: Liberia remediates the identified problems by implementing evidence-based reading instruction.

Exhibit 1. The continuous cycle of improving student learning



The implementation of EGRA Liberia commenced in June 2008 with World Bank funding and has continued since October 2008 with funding from USAID. The funding responsibilities between the two donors were agreed upon during RTI's EGRA Expert Panel organized in Washington, DC, in March 2008. The following points were agreed: All activities on or before September 30, 2008, would be funded by the World Bank; all activities following that date are to be funded by USAID.

As part of the **World Bank's task order,** the pilot assessment was conducted in June 2008 in 46 randomly selected schools at the national level, in order to establish the current levels of student reading performance, but even more importantly to collect empirical evidence that fed into the design of the remedial intervention. The design of EGRA Plus: Liberia classifies schools into three different groups: control schools, LI schools, and FI schools. Control schools will serve as a comparison group for measurement of impact—that is, improvements in student reading performance in treatment schools. To elaborate, treatment schools are classified into LI and FI schools, as follows:

The Light Intervention (LI) will test both the *power* of information and *accountability* when it comes to improving student performance. That is, it will examine the hypothesis of whether, if parents and teachers are informed that their students are not performing at the desired level, they will simply take advantage of the resources available to them in the existing context and take actions to improve teaching. It is also believed that the availability of such information will increase the level of accountability between parents and teachers, parents and students, and teachers and students, resulting in improved teaching and more effort at home in helping students with their homework. It is to this end that the intervention for LI schools will simply

consist of sharing information with schools and parents on their students' performance.

Students in LI schools will be assessed three times during the project (November 2008, June 2009, and June 2010), and the findings of the assessment will be provided to students, parents, school administrators, teachers, and community groups in the form of a school report card. The report card will also communicate what it is reasonable to expect, in terms of performance, at each grade level (based on the curriculum and on analysis of data from the June 2008 pilot and further analysis of data from the November 2008 baseline). At that time, schools will be informed that their students will have another opportunity to take the EGRA at the end of the 2008–2009 and 2009–2010 academic years to measure improvement. In a sense, then, LI schools will measure the power of pure information dissemination to lead to improvements.

Students in Full Intervention (FI) schools will take the EGRA and assessment findings will be disseminated to parents, school administrators, and community groups in a school report card, as in the LI schools. All will be notified that the same students will have another opportunity to take the EGRA again at the end of the 2008–2009 and 2009–2010 academic years to measure improvement. Teachers of grades 2 and 3 in FI schools will be trained in specific techniques for teaching reading. Teacher training will consist of two week-long, face-to-face capacity-building workshops (provided at the beginning of each academic year—December 2008 and September 2009). Additionally, grade 2 and grade 3 teachers in FI schools will be given ongoing school-based support and training.

The overall implementation of the EGRA Plus: Liberia project will be funded by USAID and by the end of 2010, the project will have accomplished the following:

- Establish and monitor student reading performance by conducting three nationally representative quantitative assessments of early grade reading in a total of 180 schools that will provide empirical data for national education policy, planning, and decision-making.
- Finalize the design of remedial interventions for 120 schools; implementing the interventions will introduce more effective practices for teaching reading.
- Improve student reading performance in grades 2 and 3 over the period of two years, namely: second-grade letter recognition improved and second- and third-grade reading fluency increased due to the newly introduced teaching practices.
- Foster significant interaction with all relevant stakeholders by ensuring that all of the project activities, schedules, and proposed accomplishments are achieved in a collaborative and transparent manner.
- Conduct a series of workshops that will strengthen the capacity of government officials and other stakeholders to design and use EGRA instruments and remedial interventions.

- Implement all of the project's activities in close collaboration with the Ministry of Education, and thus increase the technical capacity of the education management information system.

  EGRA Plus: Liberia districts: As per the commitment to USAID and the MOE, the sampling procedure focused on public schools only. The project selected 60 control schools, 60 LI schools, and 60 FI schools. It was agreed previously that in order to make this a proper experiment, allocation of schools into these three groups would be randomized. It also was agreed that to make the schools representative of all of Liberian *children* (because the unit of interest, ultimately, is the child), selection would be random but proportional to school population (enrollment).

  In order to make the intervention cost-effective, and to make its implementation reminiscent of what a scaled-up process would look like, the project team proceeded to select groups of schools that were similar in nature to the natural intervention or supervision area of district officers. Thus, schools were selected in clusters. Schools are assisted in clusters of four. It is extremely important to note that this sampling is not for a study, but for an intervention, and the sampling has to respect the nature of such an intervention.

  The EGRA Plus: Liberia is targeting the following districts ***(Exhibit 2).***

Exhibit 2. Targeted districts and schools

Number	District/County	No. of Schools to Choose From, According to EMIS Data
1	Foya/Lofa	51
2	Voinjama/Lofa	64
3	Kolahun/Lofa	82
4	Gbarnga/Bong	27
5	Salala/Bong	38
6	Greater Monrovia I/Montserrado	65
7	Greater Monrovia II/Montserrado	83
8	Saclepea #1/Nimba	38
9	Sanniquellie/Nimba	46
10	Zoe-geh/Nimba	55
11	Right Bank St. Paul*/Montserrado	72
12	Right Bank St. Paul*/Montserrado	72

Number	District/County	No. of Schools to Choose From, According to EMIS Data
13	Kakata/Margibi	69
14	Klay/Bomi	75
15	Kongba/Gbarpolu	14

* The reader may note that some districts are included twice (in this case, Right Bank St. Paul). That is as it should be if one is sampling proportional to population. For example, the largest three districts in Liberia (Monrovia I, Monrovia II, and Right Bank St. Paul) have 11% of the (public) student population. Since 11% of 15 is more than 1, it makes sense that one district might appear twice in the average sample.

III. Implementation of EGRA Plus: Liberia

III.1. Project management and systems improvement

Project and subcontractor mobilization

EGRA Plus: Liberia (October 2008–2010) is jointly implemented by RTI International and the LET–Monrovia, with guidance and support received from the Liberian MOE. Mobilizing the EGRA Plus: Liberia Program and RTI's subcontractor—the LET—took place in the last two weeks of October 2008.

The action list for the project mobilization was developed immediately upon the execution of the contract with USAID and was shared with the project's COTR. Following the initial set of activities undertaken to kick off the project, the first draft of the annual workplan for EGRA Plus: Liberia was developed and shared with USAID. LET and RTI discussed activities pertaining to the October–December 2008 quarter in detail, plans were made, and tasks delegated to various individuals on the team. A shorter version of the workplan highlighting only the main tasks to be completed in the October–December 2008 quarter was discussed and agreed upon with the MOE on October 28, 2008.

The project mobilization called for numerous activities to be taking place at the same time, with two major goals for the October–December 2008 quarter: (1) Conduct the baseline assessment in 180 target schools, and (2) commence the intervention in the FI treatment schools. RTI's subcontractor has experience in implementing education projects, but not of this size, complexity, and intensity. The learning curve of the LET staff was very steep, but due to their commitment, all of the activities needed to accomplish the above two major goals were performed in a timely manner.

On October 28, 2008, the MOE representatives, led by Assistant Minister Siebu Kertrurah together with LET and RTI, discussed the project and implications for the support to be received from the MOE. The meeting was organized by LET to briefly introduce the project to MOE and establish collaboration parameters. It was agreed that MOE and LET should fully collaborate and that support from MOE could be expected. Upon the completion of the meeting, a collection of relevant documents was handed off to the MOE for its use and information.

LET staffing

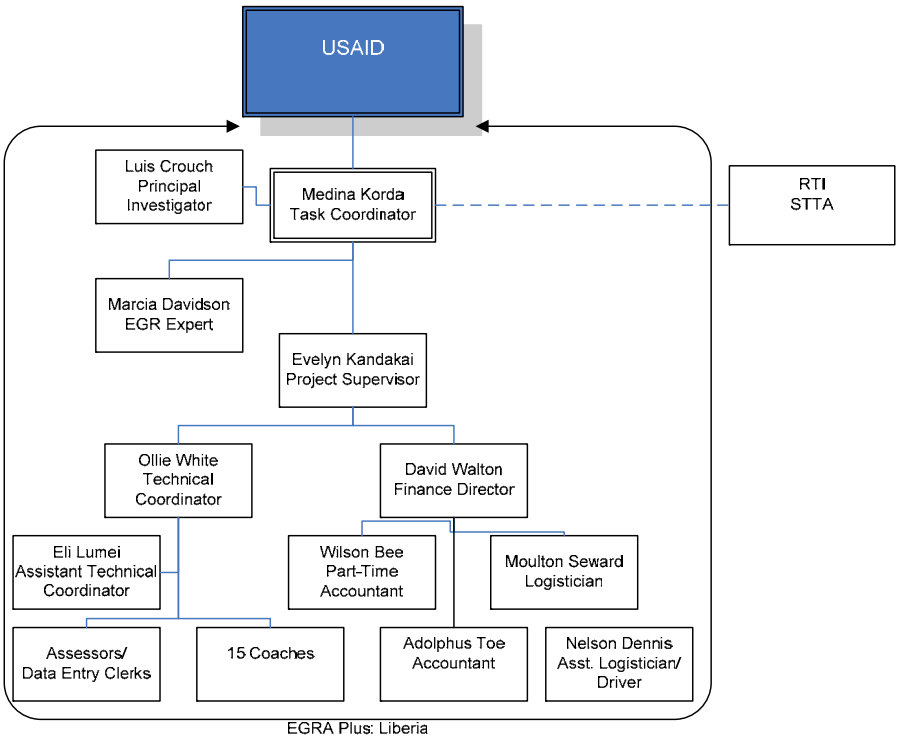
The EGRA key staff members were mobilized in less than two weeks upon the project award, and at the moment the team consists of the following staff members:

- Dr. Evelyn Kandakai – EGRA Project Supervisor (part time). Dr. Kandakai will ensure timely and planned implementation of the EGRA project by overseeing the project activities and providing leadership and advice.
- Ms. Ollie White – EGRA Technical Coordinator. Ms. White will be in charge of orchestrating all of the project activities, and, most importantly, will provide technical expertise in teaching reading. Ms. White is a reading expert and brings to the project invaluable expertise.

- Mr. Eli Lumei – EGRA Assistant to Technical Coordinator. Mr. Lumei will assist with all of the data-driven project activities. Mr. Lumei holds degrees in statistics and he will coordinate most of the tasks related to data collection and analysis.
- Mr. David Walton – EGRA Finance Director. Mr. Walton will manage the EGRA project finances.
- Mr. Wilson Bee – Part-time Accountant. Mr. Bee will assist Mr. Walton, on a part-time basis, during the busy times in project implementation.
- Mr. Adolphus Toe – Accountant. As of April 1, 2009, Mr. Toe will assist the Finance Director with day-to-day financial management. He is a trained accountant with strong skills in Excel and in project and financial management overall.
- Mr. Moulton Seward – EGRA Logistician. Mr. Seward will assist the EGRA team by organizing all of the logistics needed for the project implementation.
- Mr. Nelson Dennis – Assistant Logistician/Driver. Mr. Dennis will assist with day-to-day logistical needs, transportation arrangements, and other tasks as they arise.
- Mr. Dekonte Kun – Secretary/Typist (part time). Mr. Kun will assist with typing various documents produced by the core EGRA team and, most importantly, reports coming from the field, such as reports by Coaches, various data collection forms, and other project-related documentation.
- 18 part-time data enumerators contracted on a per-need basis. Assessors were hired as service providers in November 2008, and again in June 2009, and will be employed for the last assessment in June 2010.
- 15 trainers of teachers (Coaches). Employing a three-stage selection process, LET selected 15 Coaches who will be assisting teachers in 15 districts.

For all of these positions, LET has written Scopes of Work and executed contracts and service agreements. ***Exhibit 3*** shows the positions and reporting arrangements.

Exhibit 3. Project positions and reporting lines



Select a sample of schools for EGRA Plus: Liberia program

As indicated above, and in line with our commitment to USAID and the MOE, the sampling procedure focused on public schools only. The project selected 60 control schools, 60 LI schools, and 60 FI schools. The allocation of schools into these three groups was randomized, and schools are representative of all of Liberian *children* (because the unit of interest, ultimately, is the child) because the selection was random but proportional to school population (enrollment).

In order to make the intervention cost effective and to make its implementation reminiscent of what a scaled-up process would look like, the project team proceeded to select groups of schools that were similar in nature to the natural intervention or supervision area of district officers. Thus, schools were selected in clusters. Schools are assisted in clusters of four. It is extremely important to note that this sampling is not for a study, but for an intervention, and the sampling has to respect the nature of such an intervention.

Here is a description as to how we went about sampling:

Selection of districts

First, 15 districts were selected in a manner proportional to public school population. The selection tool is an Excel spreadsheet containing data on schools by region, county, and district.[3] The database contains data to characterize schools based on which settlement they belong to. However, "settlement" is too small a unit of aggregation to permit efficient sampling selection in a first stage, as there are half as

[3] The developed Excel software was shared with USAID/Liberia and the World Bank in late October 2008. It is available upon request, but is not be included as an attachment to this report because it is a very large file.

many settlements in the database as schools, making it an ineffective level of aggregation for a first stage of sampling. It would have been nice if "settlements" had corresponded closely to clusters of about four to five schools, since then a randomized selection of settlements could have been done. As is, selecting settlements would not have permitted efficient cluster selection, as the settlements are themselves below the cluster level of aggregation.

A simple sampling program was written in Excel. The =rand() function in Excel is used to generate a random sample. Sampling techniques are used to make the random sample proportional to population. The tool allows one to sample and re-sample, given that new samples can be generated easily simply by pressing F9. This can serve as a capacity-building exercise on how to sample proportional to population, using simple, standard software in a very step-wise, transparent logic.

A district sample is the following:

Number	District/County	No. of schools to choose from, according to EMIS data
1	Foya/Lofa	51
2	Voinjama/Lofa	64
3	Kolahun/Lofa	82
4	Gbarnga/Bong	27
5	Salala/Bong	38
6	Greater Monrovia I/Montserrado	65
7	Greater Monrovia II/Montserrado	83
8	Saclepea #1/Nimba	38
9	Sanniquellie/Nimba	46
10	Zoe-geh/Nimba	55
11	Right Bank St. Paul*/Montserrado	72
12	Right Bank St. Paul*/Montserrado	72
13	Kakata/Margibi	69
14	Klay/Bomi	75
15	Kongba/Gbarpolu	14

* See explanation below for double sampling.

However, the developed software would make it possible to re-sample.

The reader may note that some districts are included twice (in this case, Right Bank St. Paul). That is as it should be if one is sampling proportional to population. For

example, the largest three districts in Liberia (Monrovia I, Monrovia II, and Right Bank St. Paul) have 11% of the (public) student population. Since 11% of 15 is more than 1, it makes sense that one district might appear twice in the average sample.

The project team has simulated the selection over many hundreds of repeated samples. The resulting correlation between the actual share of each district's population and the resulting proportion of the time each district shows up in a sample is 0.99 (converging to 1 at the limit). In repeated samples, the proportion of times in which the largest three districts show up is 11%, if they are allowed to sometimes show up more than once in a sample, which is exactly proportional to the population.

Selection of schools within clusters

Once the districts were selected, clusters of four schools each were selected. The EMIS database has data on the X-Y geographical coordinates of the schools. The procedure used is as follows.

For the selected districts, the sampling team created a distance matrix of all schools *i* to all other schools *j*, simply calculating the length of the hypotenuse between *x(i), y(i)* and *x(j), y(j).* This is obviously not perfect, as it does not take into consideration infrastructure, but it is a good first approximation; it can be overcome with real information about closeness. There may be a need to substitute out some schools anyway, because of poorly entered X-Y coordinates, or other reasons, such as there being an unfordable river between schools that in terms of X-Y coordinates appear close to each other.

Staff then selected one school at random in the district, which can be considered the centroid of that district's cluster.

There remained two choices or options.

A first choice was to find the three schools closest to the centroid. The problem with this is not what one might at first think, namely that it creates a bias towards higher-population density areas. After all, if the selection of the centroid schools is truly random, some of them will be in low-density areas, and the nearest schools will actually be quite far, precisely because they are in low-density areas. This option does have the advantage of minimizing the cost of intervention, and also more closely mimicking the way an actual supervisor would work, by going from school to school, taking the closest ones in sequence. In that sense, it has all the "realism" and representativeness one needs.

However, the option does suffer from one problem, which is some design effect. Clustering on the closest schools, after picking one at random, does minimize the range of schools one is dealing with, to some degree. A clustering process, relative to a pure random sample, will restrict the range of observation somewhat, because schools within clusters will tend to differ from each other less than schools selected totally at random. In the ideal world, clusters should all be "mini populations." If that were the case, then clustering would be extremely efficient. But we know that in the real world, clustering censors the observed total variance relative to the real variance, because units will tend to be similar to each other. Thus, this is somewhat of a

disadvantage. But because EGRA Plus: Liberia is a very labor-intensive intervention, it is important to economize. And because it is an intervention that one hopes is replicable, it is important to work in a way that mimics the "real" work that would be done in a project that is taken to large scale.

This is why we have clusters of four schools to begin with. If, having clustered at the district level, one picks a single school in the cluster, and then finds the closest three schools, one is then also restricting the range of observation. The other extreme is to select the four schools completely at random within the cluster. But some of the districts in Liberia are big, so this creates an artificial cluster, unlike anything that anyone in real life would work. The average district has 90 schools, which is way beyond anything any one agent could truly help. In real life, any improvement process most likely would require a span smaller than 90 schools.

The cost saving involved in clustering within districts by picking a school at random, and then the three closest, seems worth the possible sacrifice in variability between schools. Again, this will not create an urban bias, or a bias towards areas with higher population density. It just makes the sampling a little less efficient in a statistical sense, but a great deal more efficient in a cost and substantive sense.

In conclusion, taking the above described two steps allows the sampling to be proportional to population, and groups the schools into reasonably natural clusters that are more or less similar to the administrative or jurisdictional units that would occur in reality, but also is random at each step.

EGRA Plus: Liberia official launch and signing of MoU

The project was officially launched on November 14, 2008, at Precious Andrews Hall in Monrovia, Liberia. Close to 100 participants were at the project launch, representing various institutions: the MOE, USAID, the World Bank, the project staff, and students from a couple of local schools. Journalists were invited as well, which resulted in a couple of articles published in both print and web-based media.

EGRA Project Launch: Deputy Ministers Roberts and Williams-Catakaw and Luis Crouch

The approach to the project launch consisted of three steps: (1) remarks by USAID, MOE, and RTI; (2) group work that elicited information needed for the project implementation; and (3) the signing of a MoU between RTI and MOE.

The MoU was signed at noon, marking the start of the official collaboration between the MOE and project implementers. The signatories were:

- For RTI: Dr. Luis Crouch, Principal Investigator and main signatory; Ms. Medina Korda, Task Coordinator and witness;

- For MOE: Mr. Joseph Korto, Minister of Education and main signatory; Mr. James Roberts, Deputy.

Performance Monitoring Plan (PMP)

The development of the PMP was led by RTI's M&E Expert, Ms. Eileen Reynolds, who spent November 19–26, 2008, in Liberia. Draft documents were discussed with relevant stakeholders and the final version of the PMP was submitted to USAID/Liberia for discussion on December 9, 2008.

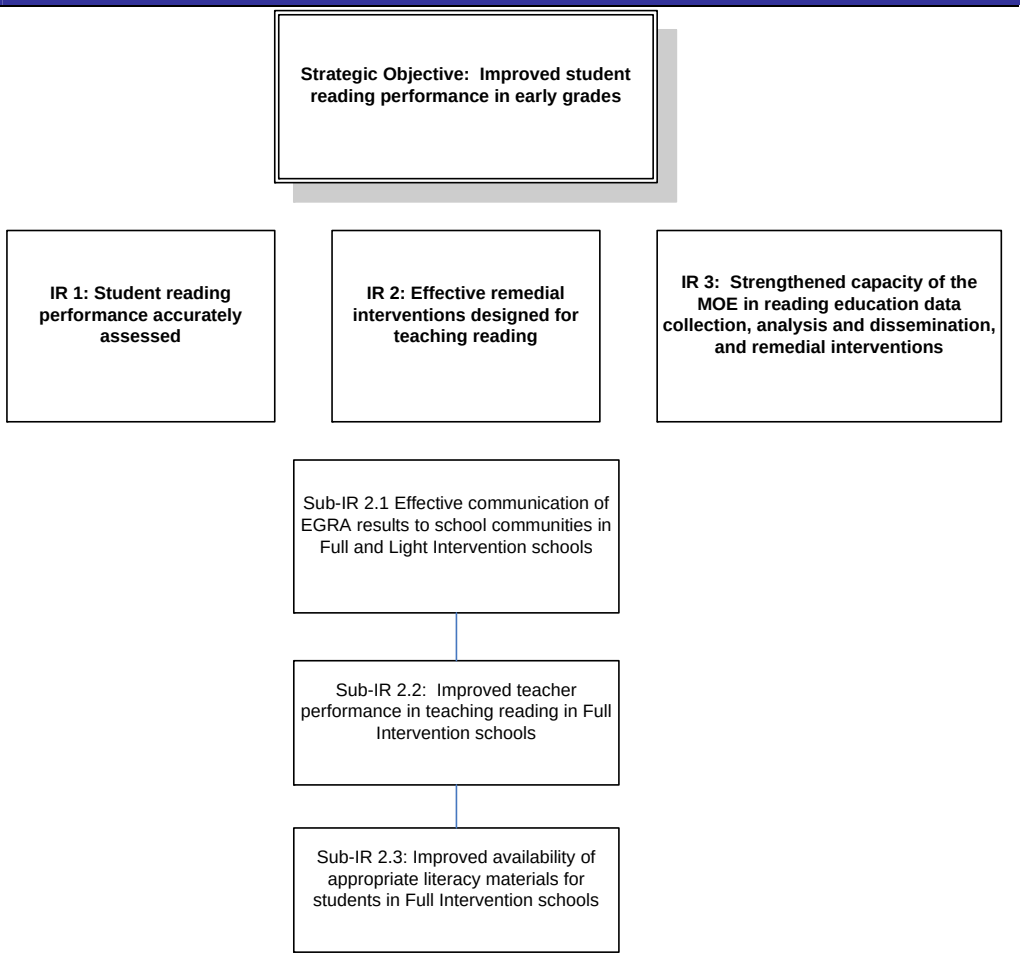
On February 4, 2009, USAID approved RTI's PMP. The PMP serves as a guideline to the EGRA Plus: Liberia project team, USAID/Liberia, the Liberian MOE, the World Bank, and other partners and stakeholders for measuring and analyzing project results. The PMP is a requirement of RTI's contract with USAID/Liberia for the EGRA Plus: Liberia project and USAID will use it to conduct yearly performance reviews of the program, which will be led by USAID's COTR. The PMP provides the roadmap for answering the key questions, "How will we know we achieved the desired results?" and "How will project stakeholders define success?" In this way, the PMP will strengthen accountability to project stakeholders.

The EGRA Plus: Liberia Results Framework (see ***Exhibit 4*** below) is a hierarchical arrangement of incremental results—composed of the Strategic Objective (SO), intermediate results (IRs), and sub-intermediate results (sub-IRs)—that the project aims to achieve. The SO represents the highest level of achievement anticipated by the end of the project's life. Below the SO are supporting or intermediate results that represent incremental steps toward achievement of the overall SO. The sub-IRs, or lower-level results, are layered beneath the IR. Each sub-IR under IR 2 constitutes an incremental or component result contributing to or leading toward achievement of IR 2.

Indicators are uniquely identified with a specific result. Each indicator isolates one aspect of the result and is defined to measure a quantifiable factor that directly or indirectly captures an element of project progress. The project team will supplement performance indicator data with qualitative data such as that obtained through Coaches' visits to schools, periodic assessments in a sample of schools, and other sources that provide the context needed to interpret the data.

RTI has consulted with the Liberian MOE, the World Bank, LET, and USAID/Liberia to determine the most effective and feasible indicators to measure performance for each result. The EGRA team will collect, analyze, and report performance indicator data to inform USAID/Liberia, the Liberian MOE, the World Bank, and all partners of the project on the progress and results of planned activities. This information will be used by RTI and project stakeholders to inform project implementation.

Exhibit 4. The EGRA Plus: Liberia Results Framework



As we learn lessons from project challenges and successes, we will regularly adjust implementation strategies, understanding of achievable goals, and resource allocations. Indicators may occasionally need to be revised or refined to ensure they are useful in their role as results feedback tools. This PMP will continually support ongoing improvements to project implementation through empirical feedback on results achieved, even as the goals and targets may be modified over the life of the project.

LET systems improvement

LET was established in Washington, DC, in 2005 to support the restoration of education in Liberia. LET has implemented several activities so far, with the goals of building and renovating a number of schools, training teachers, and disbursing scholarships. These tasks were successfully completed and with support from LET–U.S., LET–Monrovia embarked on an important path of becoming an independent, efficient, and astute organization capable of implementing large and complex projects in Liberia. One such project is EGRA Plus: Liberia.

At the time of the proposal negotiations, RTI and USAID agreed to assist LET with improvements in its systems so that it could implement EGRA Plus: Liberia. Upon

contract award in October 2008, the project was rapidly mobilized in order to collect baseline data at the beginning of the academic year and commence the reading interventions as soon as possible. Consequently, RTI delayed the subcontractor system improvements until January 2009. RTI assistance in capacity building focused on three aspects: finance, monitoring and evaluation, and management overall.

The task at hand not only is important for LET, but also represents a step forward in an overall effort by local governments and the international community to revive civil society and the nongovernmental sector in Liberia. Yet the task is very demanding and complex, and calls for higher standards of project management and delivery.

LET was a small nongovernmental organization (NGO) that, due to the EGRA project, grew from two to more than 15 members (inclusive of Coaches) in a matter of a couple of months. This level of growth is challenging even for bigger and established firms in both the developing and developed world. And in the context of rigorous demands to meet USAID rules and regulations, LET is learning fast. RTI will continue building the capacity of LET for the remainder of the project.

Financial systems improvement

First, RTI focused on assisting LET in establishing and strengthening financial systems that are necessary for full compliance with USAID regulations. In January 2009, RTI's Project Administration Specialist (PAS) traveled to Liberia to conduct a financial compliance review and to assist with the recommended changes. The PAS conducted an immediate assessment of the following: organizational management, policies and procedures, organization and staffing, organizational information, travel expenditures, cash receipt process, cash/check disbursement process, fixed-asset management, accounts receivable, time reporting and payroll, information and technology security, general controls, accounting systems, internal controls, financial controls, and acquisition and procurement process.

Following this assessment, PAS and LET spent time improving and institutionalizing various systems. This marked the beginning of RTI's support to LET in this realm. In February 2009, the project's Task Coordinator spent two weeks in Liberia in support of the project implementation. With respect to the financial systems improvement, in further discussions among RTI, USAID, and LET, it was agreed that support to LET would be carefully planned, indicating clear goals and timelines between March and August 2009. The Task Coordinator dedicated a week to supporting LET in improving its financial and oversight systems.

In March 2009, the project's Finance Director and Accountant attended a three-day training organized by USAID/Liberia's Office of Financial Management, the Regional Inspector General, and Regional Legal Advisor. The training was held in March 2009 and reviewed the following topics: Requirements for Financial Audits of USAID Programs, U.S. Government Auditing Standards, and Fraud Awareness and the Performance Audit Process.

In May 2009, the Task Coordinator spent five weeks in Liberia, of which 1½ weeks were spent on continuing the support to LET in the area of financial systems improvements. The Task Coordinator, Finance Director, and Accountants together

reviewed the accounting system in great detail. The items for improvement were listed in form of an action plan. Note that LET uses QuickBooks as a platform for its accounting system. QuickBooks is a powerful tool that entirely eliminates the possibility of making the common mistakes that occur when Excel is used. Two of LET's finance staff members are proficient in using this software, and a third has started attending training to improve his skills. Important improvements in the financial systems overall have been made since January 2009.

The independent financial audit of LET has been tentatively planned for November 2009. Prior to this, RTI's financial specialist and the Task Coordinator will spend one week working with LET to make final changes.

Monitoring and evaluation (M&E)

LET's awareness and experience in M&E was not extensive at the outset, and one of the largest challenges in this area proved to be the demands on LET staff's time, due to multiple project activities and taxing schedules. Another challenge was perceived to be the project's reliance on the Coaches to provide high-quality data for M&E. With support from RTI, LET's capacity was built to respond to the requirements as the project unfolds. The right tools and frequent support to Coaches and the project team was provided in order to ensure they are reporting consistently and understand the data they are to collect.

Following the approval of the PMP in January 2009, the EGRA team reviewed and adjusted all data collection forms. While in Liberia in February 2009, the project's Task Coordinator ensured that LET was fully familiar with the data collection forms. During the second technical and managerial visit to Coaches in March 2009, the EGRA team provided additional training to Coaches and distributed data collection forms.

Additional capacity building was needed for some Coaches. For this purpose, RTI developed a reference sheet for each indicator that contains the following: indicator's precise definition, method of calculation for different school types (Full Intervention, Light Intervention, and control schools), data collection method, information analysis and use (including indicator significance and management utility), data quality and interpretation issues, and project targets.

During the Coaches' retreat in April 2009, the EGRA Technical Coordinator firmed up the Coaches' knowledge on how to use various trackers. The EGRA Technical Coordinator stated that trackers have proved to be invaluable tools not only for data collection but also for project management. The support that Coaches are providing to schools is systemized and each visit is then recorded on its relevant tracker, and then transferred into a form of the "Coach's Report." While improvements can be still made, the data being collected so far are proving to be useful and accurate for reporting on the project's PMP. The only challenges are the fact that Coaches' visits some times do not coincide with the reporting schedules, and that Coaches' reports from the field (e.g., Lofa) sometimes have not made it to Monrovia in time for the analysis.

At this stage, the EGRA team has learned all that is needed for reporting on the project's progress indicators (see Section VI).

Technical support, management, and supervision

RTI provides continuous support to the EGRA team on any matter related to the project implementation. With respect to technical and intervention related questions, Dr. Davidson (EGR expert) is consulted on a regular basis. For other project management aspects, the EGRA team is supported by the project's Principal Investigator, Task Coordinator, and Project PAS. The Task Coordinator provides continuous support, from the home office as well as in Liberia, to all tasks pertaining to project management.

Other

The EGRA Technical Coordinator participated in series of discussions organized by the MOE with the goal of assisting the Education Sector Review effort that is spearheaded by MOE.

III.2. EGRA assessments

The EGRA Plus: Liberia uses empirical data to measure progress towards achieving its target goals. Three such assessments are scheduled to take place before the project ends in 2010: baseline in November 2008 (completed), midterm in June 2009 (completed), and final assessment in June 2010. In our previous quarterly progress reports, we have provided details for each of these two assessments. In this annual report, we summarize these by focusing on the key steps undertaken in the process.

Development and adjustment of the EGRA instruments

The EGRA tool tests skills that are frequently needed in the early grades if children are to have a solid basis upon which to progress with their reading in the later grades. Overall, to develop the complete Early Grade Reading Assessment, RTI's EGRA development team reviewed more than a dozen assessment instruments, including the Dynamic Indicators of Basic Early Literacy and Illinois Snapshot of Early Literacy (DIBELS/ISEL), the Peabody Picture Vocabulary Test, and instruments applied in Spain, Peru, Kenya, Mongolia, and India.

To obtain feedback on the initial design of EGRA, USAID, the World Bank, and RTI hosted a meeting of experts (a summary of proceedings and a list of workshop participants can be found at www.eddataglobal.org, under News and Events). Based on this and other expert consultations, a complete EGRA was developed for application in English. The resulting instrument contains eight tasks, or subtests, as presented in ***Exhibit 5***.

Exhibit 5. Review of Instrument Components

Component	Early reading skill	Skill demonstrated by students' ability to:
1. Orientation to print	Orientation to print	• Indicate where to begin reading (uppermost left corner) • Indicate direction of reading within a line (left to right) • Indicate direction of reading within a page (top to bottom)
2. Letter-name knowledge	Letter recognition	Provide the name of upper- and lowercase letters distributed in random order
3. Phonemic awareness	Phonemic awareness	• Segment words with 2 to 5 phonemes • Identify words with different beginning or ending phoneme
4. Familiar-word reading	Word reading	Read simple and common one- and two-syllable words
5. Unfamiliar non-sense word reading	Alphabetic principle	Make grapheme-phoneme correspondences (GPCs) through the reading of simple nonsense words
6. Oral reading fluency with comprehension	Oral reading fluency	Read a text with accuracy, with little effort, and at a sufficient rate
	Reading comprehension	Respond correctly to different types of questions, including literal and inferential questions about the text they have read
7. Listening comprehension	Listening comprehension	Respond correctly to different types of questions, including literal and inferential questions about the text the enumerator reads to them
8. Dictation	Alphabetic principle	Write, spell, and use grammar properly through a dictation exercise

The EGRA Liberia assessment used for the **baseline assessment** consisted of a variety of sub-tasks. The internal cohesion and reliability of the EGRA Liberia assessment was checked using various statistical procedures, and the reliability is found to be good, certainly in the range of other similar assessments used in both developed and developing countries. Depending on the exact version, for example, the alpha coefficient of reliability for the baseline assessment was 0.85, which is a good benchmark (0.7 being considered an absolute minimum). It needs to be noted that the EGRA tool was developed while keeping in mind the target grades for assessment—Grades 2 and 3.

The Liberian EGRA assessment, in the end, had components on

- orientation to print,
- phonological awareness,

- letter-naming fluency,
- familiar-word fluency,
- unfamiliar-word fluency,
- fluency in reading connected text,
- comprehension based on read text, and
- a listening comprehension test.

The additional "Student Background Questions" were included to reflect the project's PMP as well as the request by the World Bank for inclusion of additional questions. The following three instruments were administered for the November 2008 baseline assessment:

- Student instrument,
- Teacher instrument,
- Principal instrument.

Midterm assessment. The same instruments, rather the same format of the baseline instruments were used in the midterm assessment in June 2009. New questions asking respondents about the newly introduced techniques were included in both the principal and teacher instruments. And in the student instrument, the changes made pertained to the student instrument and specific tasks within it. Great care was taken to ensure that the student instrument used in the midterm assessment is of equal difficulty to the one used in the baseline assessment in order to ensure as much accuracy as possible in comparing data collected on two different occasions.

The advantage of EGRA as a tool for measuring reading fluency is that it is an assessment of skills and not the content. For every EGRA that is done in a particular setting, the content of the EGRA tests is entirely changed. In other words, the story used for assessing student performance in reading connected text is never the same, which eliminates the possibility of "test leaking" and "teaching to the test." At the same time, it is important that the data collected be comparable from baseline to midterm to final assessments if we are to make any inferences about improvements in student performance over time.

Although every effort was made to calibrate the difficulty ex ante using various analyses in May 2009, such as Spache analysis, this type of ex ante calibration typically is not good enough, in our experience. Thus, in addition to the ex ante calibration, we also conducted an empirical or statistical calibration. In this section we discuss both the Spache analysis and the calibration, as follows:

- First, the new passage was developed by RTI's EGR Expert, Dr. Marcia Davidson. She used the Spache readability online tool to determine the grade level of this passage. It was important that the new passage be as close as possible in terms of its difficulty level to the one used in the baseline.

- Once the passages were equated using Spache analysis, they had to be tested in a "live" setting. The EGRA team went to four schools in Monrovia and tested 80 students. The sample of 80 children was independent of the sample of children in any of the project schools. Each student was asked to read both passages (baseline and midterm), and the time taken to read each passage was recorded. The order in which students were asked to read the passage was alternated in order to create a randomization effect (e.g., Student 1 read the old passage first and then the new passage, Student 2 read the new passage first and then the old, and so on until all 80 students were tested). Children in both grades 2 and 3, in several schools, were part of the sample.
- Once the 80 observations were collected, the data were entered and analyzed (two assessments were excluded from the data entry and analysis as the data were incomplete). An analysis of the averages showed that in general, the correlation between the two (2008 and 2009) was excellent. But the analysis also confirmed that the levels of difficulty appeared slightly different. These differences will be adjusted during the analysis stage (more technical detail with respect to this step will be presented in the EGRA Analytical Report–Midterm Assessment).

  While letters and non-familiar words were only reshuffled in the 80-observation instrument, we needed to include new familiar words. Dr. Davidson recommended calibrating these as well, which the EGRA team did using the same approach described above.

  Based on the data collected, the mid-term results are to be adjusted as follows:

  - Connected test fluency in the mid-term passage should be multiplied by 1.26 to make it comparable to fluency in the baseline passage.
  - Familiar word fluency in the mid-term list should be multiplied by .94 to make it comparable to fluency in the baseline list.

  Other sections of Student, Teacher, and Principal instruments were reviewed and adjusted jointly with the assessors during their training. Each question in the instruments was discussed and approved by all of the participants. It needs to be noted that Student, Teacher, and Principal instruments were vetted by the Liberian stakeholders in June 2008 at the time of conducting in at the time of pilot assessment and in November 2008 at the time of conducting baseline assessment. The same was done in June 2009 with the workshop participants.

EGRA assessor training

For the baseline assessment, at the suggestion of the MOE, LET identified 23 potential enumerators to be trained and selected for the data collection.[4] Out of these 23 enumerators, five accepted the Coach position and the remaining 18 individuals were deployed to the field for data collection. The training for enumerators was held on November 10–13, 2008, on the eighth floor of the MOE building. Engaging 18 enumerators to collect data over the period of four weeks meant that the goal of fully

[4] A total of 25 participants were trained when MOE staff are counted.

training 18 enumerators in administration of Early Grade Reading Assessment (EGRA) instruments was accomplished. The majority of trained enumerators were from the MOE staff. The performance of assessors is measured by using the interrater reliability tool. The interrater reliability exercise is a good proxy for determining the enumerators' ability to perform assessment techniques as accurately as possible. What it means is that a trainer will select several tasks from the EGRA assessment instrument and develop a modified version of each task that contains mistakes. The trainer, posing as a student, then reads these new subtasks aloud to the assessors, who are supposed to have marked the same mistakes. For instance, if the trainer made six mistakes on the letter-knowledge task, then the enumerators should have marked the same six mistakes.

The first interrater reliability exercise showed that only around 60% percent of the enumerators were able to accurately mark the mistakes that the trainer intentionally made. This was not sufficient and informed the trainers about the enumerators' performance and the approach to the training was altered to include more close supervision. This change led to significant improvements, bringing the enumerators' level of accuracy to 95% by the end of the last training day. The EGRA team agreed to use the interrater reliability tool not only as a training tool, but also as a selection tool during midterm and final assessment.

At the end of the training, the MOE signed letters of support for the EGRA baseline data collection to be presented to DEOs, principals, and teachers in target schools.

The midterm assessment training was organized during May 11–15, 2009, and it was facilitated by the Task Coordinator and EGRA Technical Coordinator. The training was also attended by the MOE EGRA Core Team. The EGRA team always trains more assessors than needed, in order to ensure that the assessors who are chosen at the end to be deployed are the best possible performers. The total number of trainees was 47, from which the 18 best assessors were selected. The total number of MOE staff trained at this training was 15 (not including staff from the MOE's EGRA Core Team). At the core of the training approach was the use of an interrater reliability tool for both training and selection of assessors. The idea behind this tool is that a person—usually the trainer—is chosen to represent the "gold standard." This person pretends to be a student and then intentionally makes a number of mistakes in a given instrument. The closer the assessor is to the gold standard, the better his/her performance is. In other words, if the trainer made four intentional reading errors, then all assessors should have caught the same mistakes.

This approach allowed the trainers to pinpoint the struggles that assessors were experiencing. For instance, they would mix up the sounds for the letters "m" and "n;" they would not hear the word "the;" or they would not be accurate enough in marking the student sheet. The mistakes were discussed in plenary, which allowed all participants to compare their mistakes together and explain why some mistakes were being made.

The interrater reliability tool also assisted trainers in the final selection of assessors. After the candidates had completed one interrater exercise, the instruments they had filled out were collected by trainers and scored. Scoring consisted of adding up

mistakes that the candidate assessors had made across different tasks. The added scores then were used for ranking the assessors—the lower the number of mistakes, the higher the chance that candidate would be selected. Two such tests were used to rank the candidate assessors. The EGRA team looked at both tests and chose the better of the two performances for ranking the assessors. One of these tests was unannounced, as a way of reducing pre-test anxiety. The other test was announced, to avoid the possibility that some assessors would think it was an exercise and would not perform as well as if they had been warned. At the end, the candidate assessors were ranked and chosen based foremost on their performance, but also on whether they had participated in the baseline assessment. It needs to be noted that the selection process was done together with the MOE's EGRA Core Team.

Overall, dozens of assessors have been trained during the baseline and midterm assessment which surpassed the project target of training 18 assessors in Year 1.

EGRA data collection

Baseline assessment. In November 2008, RTI International collaborated with Liberian education officers to collect a nationally representative comprehensive baseline early grade reading assessment in Grades 2 and 3. A total of 176 schools were assessed, including 60 control, 59 full treatment and 57 light treatment schools, for a total of 2957 students.

EGRA Technical Coordinator giving final instructions for field deployment on November 15, 2008.

Over the period of four weeks, baseline data were collected in 176 schools. The remaining four schools will be assessed in January 2009. As explained below, of the four schools that were not reached during the baseline, two turned out not to exist and the other two had low enrollments. The two schools that did not exist or ceased prior to data collection are: a) Plunkor community school, Plumkor, Right Bank St Paul, Monteserado, and b) Nomon Public, Kongba, Gbapolu. From the analytical point of view, having data collected from 176 schools is adequate for report writing.

In all, nine data collection teams were formed, each team consisting of two enumerators. Both individuals were tasked with assessment; however, one of them assumed the role of a supervisor. This introduced a layer of accountability needed to ensure that at least one person on the team would be held fully accountable for execution of the assigned tasks. The data collection teams that had to travel long distances were deployed on Saturday afternoon to allow for two days of traveling. Others who would not need to travel that far were deployed on Sunday. From that point on, LET stayed in touch with the assessors by phone on a daily basis. Various tools for quality control were employed, from ensuring that every page of the instrument was marked with its unique number to calling the enumerators regularly to confirm that they had reached their schools.

Having a team of two assessors assessing one school per day was an ideal arrangement. It allowed enough time for drawing a sample in the morning and

splitting the workload between two assessors, resulting in all students being assessed by the time they were supposed to go home anyway.

While the performance of the enumerators during the four weeks of data collection was remarkable, there were a few exceptions, resulting in the fact that enrollment data disaggregated by sex for a number of schools was not collected. Dr. Crouch and Ms. Korda had made a last-minute change to the instrument that required the enumerators not only to collect the enrollment broken down by sex, but also to link that enrollment to teachers. Several assessors thought that they needed to collect teachers' names only. This problem was remedied as soon as the first instruments arrived from the field, and the missing enrollment figures were collected either in June 2009 at the time of the midterm assessment. (It must be noted that enrollment figures for each school *were* recorded on a school data collection summary sheet, but were not disaggregated by sex.)

MOE supported the management of the data-collection process by extending the services of Mr. Farwenee Dormu, EMIS administrator at the MOE. Mr. Dormu called all of the DEOs from the selected districts and informed them about the upcoming assessment without specifying the exact time of the teams' arrival. Finally, various checklists, the MOE's letters of support for baseline collection, and the data collection guide were prepared and given out to the teams.

Midterm assessment. Data collection commenced on May 25, 2009, and lasted four weeks. Nine teams were formed, each consisting of two members. They were both tasked with conducting assessments and had the same responsibilities. One of them was chosen to be the team leader and to make sure that all tasks were completed. Overall, schools were cooperative and open to assessment based on their familiarity with the project. Teams needed to put in extra effort in a few cases, however, where schools were closed due to the rainy season. Together with the EGRA team, the assessors managed to reach their schools. Out of the total 180 schools, 179 EGRA schools were assessed.

Assessors practicing administration of EGRA.

It needs to be mentioned, however, that the data collection did not start well in one of our districts. Due to a number of misunderstandings by the community, which were based only on what they saw, they concluded that one of our teams was a group of kidnappers, and as a result the community attacked our vehicle. Fortunately, the assessors received only minor injuries. The EGRA team and MOE (the EGRA project is profusely grateful for MOE's assistance in this matter) conducted an inquiry into what happened and a report was provided to USAID. In discussions with the community and authorities, it was agreed that the incident was a huge misunderstanding.

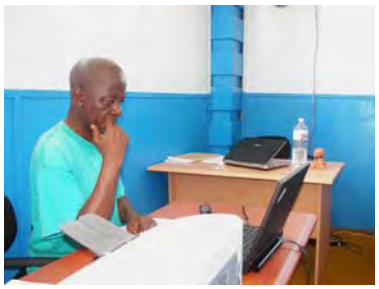
The instruments were submitted by the assessors in mid-June. The EGRA team checked every instrument and checked the assessors' scoring. At the same time, the EGRA Task Coordinator checked instruments for missing data and found that unlike

in November 2008, when some problems arose with collecting data on enrollment, in June 2009 there were very few instances of missing data.

There were no unusable instruments, and with this the project accomplished its target of having less than 5% of unusable instruments.

EGRA data entry

An EGRA data entry application was developed in June 2008 by Mr. Farwenee Dormu of the MOE, with guidance and support from RTI. According to Mr. Dormu, the EGRA database was the first database that the MOE had developed since the end of the conflict in Liberia. Mr. Dormu was grateful to be given an opportunity to engage in such important work and to use it to build the capacity of the EMIS staff. Lessons learned were used to adjust the data entry application in November 2008 and this resulted in a brief manual for data entry. Entry of the baseline EGRA data was completed at the end of January 2009.


Mr. Farwenee Dormu, MOE EGRA Data Entry Supervisor.

RTI cleaned the EGRA data and both Dr. Crouch and Ms. Korda of RTI determined that when compared to June 2008, great improvements in accuracy of data entry can be noted. For the sake of comparison, at least 3–4 workdays were spent in June 2008 to clean data, while for the November 2008 data, a total of 7.5 hours was spent on cleaning data. This is a great improvement and the MOE needs to be congratulated on this effort. The Task Coordinator kept a log of the most common data entry errors made and these will be shared with the MOE.

For midterm data entry, RTI developed a data entry application using Visual Basic that will reduce the time for data entry to a third of what would have been needed previously. The data entry application was developed by July 25, 2009, and data entry was completed by September 9, 2009. The data entry did not commence until August 13, 2009, due to MOE's need to clean up the census data. Even with this short delay, the EGRA data entry was performed during a much shorter time frame than was the case with the baseline data. The data sets did not need any further cleaning, and this system will be used for the final assessment in June 2010.

Report writing

Report writing for both baseline and midterm assessments was performed by RTI with the input from LET and MOE.

The research design allows for comparisons between the control and the two different treatment groups, both to estimate the impact of the program and to assess ways to improve the program design at midpoints during program implementation. For the baseline assessment descriptive and bivariate analyses of the EGRA reading subtasks show that Liberian children are capable of identifying the names of letters for the most part, with the average grade 2 child identifying 54.9 letters in a minute and the average grade 3 child identifying 66.4 letters. Student achievement on tasks that require phonemic awareness was not as strong, however. Grade 2 students were able

to identify 6.1 familiar and 1.6 unfamiliar words, with grade 3 students at 12.7 and 3.0 words, respectively. International benchmarks for grade 2 unfamiliar-word decoding, for what they are worth, require 30 words to be classified as "emerging reader" and 50 to be classified as "established reader"—both far above the Liberian average of 1.6.

Given the importance of oral reading fluency skills in future academic achievement and the ability to move from *learning to read* to *reading to learn*, much of the baseline report will focus on oral reading fluency levels and the impact of various predictor variables on this construct. Grade 2 students read 14.5 words per minute correctly, while grade 3 students read 25.1 words. These averages mask significant variation, since approximately a third of both grade 2 and grade 3 students were unable to read any words correctly at all. Reading comprehension scores, as we would expect, depend heavily on the ability to accurately read the text the questions are based on. On average, students were able to answer 1.25 of the five reading comprehension questions; and for listening comprehension, 1.68 of the three items.

In summary, the early grade reading skills of the Liberian children assessed in grades 2 and 3 were relatively low at the time of baseline assessment.

Midterm assessment data was analyzed in September and October 2009. The preliminary findings of the midterm and baseline data show that children in treatment schools (both FI and LI) outperform children in control schools on all tasks tested by the EGRA tool, and suggest that these differences can be attributed to the impact of the program. A detailed overview of these finding is presented in the section 'Improved Student Reading Performance'.

III.3. Reading intervention: Design and implementation

Intervention design

The EGRA intervention design was jointly funded by the World Bank and then finalized with USAID's support. In the summer of 2008, RTI analyzed the revised National Language Arts Curriculum standards (published in June 2008). The main conclusion from this analysis was that many of the learning outcomes that were stated resulted from good instruction, yet improvements in the content and pedagogy of instructions were identified as needed.

The Assistant Minister, Ms. Siebu B. Kerturah, reading the assessment tools exercise, along with her MOE counterparts.

Based on this assessment, RTI and local stakeholders determined that the remedial intervention should begin with the creation of an instructional model and key reading sub-skills that need to be taught. A clear model and a scope and sequence of instruction for each of the five key components of reading, and for each grade (2 and 3), was developed.

In addition to the mentioned analysis, RTI used the findings of the June 2008 EGRA assessment to inform the finalization of the remedial intervention. In September 2008, RTI worked with local stakeholders during a week-long workshop to begin finalizing the intervention. Finally, RTI, LET, and MOE worked to finalize the FIs and LIs.

During the several months of reading intervention implementation in Year 1, the EGRA project team compiled lessons learned and used these to further simplify the reading intervention. One of the main goals of this adjustment was to ensure that the reading intervention was even more simplified and structured. Teachers lacked skills in lesson planning and there was a need to develop detailed lesson plans as well as clear guidelines as to how to implement a given lesson plan. In Year 1, the intervention consisted of the main manual and several supplementary manuals. For Year 2, there will be only one manual that combines all exercises that were contained in supplementary manuals.

Dr. Davidson worked on this manual in May and June 2009. She was supported by the Principal Investigator, Task Coordinator, and EGRA Technical Coordinator. Samples of lesson plans were also provided to USAID for review. Note that the manual used in Year 1 was approved by the MOE and the plans for these adjustments were discussed with the MOE representatives during the Coaches' retreat organized in April 2009.

The Year 2 reading intervention consists of:

Full Intervention

- **Main teacher manual:** The manual consists of the scope and sequence for teaching reading, with daily lesson plans. The manual is broken into two volumes, one for each of the two semesters of the Liberian academic year.
- **Decodable books:** Each student in grades 2 and 3 in FI schools will receive a set of three compilations of decodable books; each compilation has around 20 small (decodable) stories. These books are for students and each book is linked to a specific lesson plan presented in the main manual. These books were downloaded from www.teachtheworldtoread.com and permission for use was granted by the Teach the World to Read Web site manager. The final set of books was presented to and approved by the MOE.
- **OYSS/Stella Maris books:** The inclusion of OYSS books was suggested by the MOE. Enough OYSS books for grades 2 and 3 were procured and will be used to build small libraries for students in grades 2 and 3. Teachers will be in charge of making sure that these books are safe (not locked) but also checked out by students for reading at home. A reading-at-home tracker was developed as well, thereby introducing three-way accountability among teachers, students, and parents. Students will be required to read at home (either OYSS books or their own personal books) every day for 20 minutes, and at the end of the week all students, teachers, and parents will sign and confirm that students indeed spent that much time reading at home every day.

Light Intervention (also used in FI schools)

- **Student report card manual:** Students' performance on reading was assessed by teachers three times before the 2008–2009 academic year ended. Teachers have been given a manual that contains all of the instructions on how to assess and track student performance. Teachers assessed and reported on reading performance at the end of Periods 4, 5, and 6. Data collected by Coaches was analyzed for Period 5 for the purpose of PMP reporting.
- **Student report card:** Teachers will fill out the student report card and send it home to parents by way of their children. Given that the student report card will list goals to be achieved by students, a discussion arose around the issue of illiterate parents who may not know what the card says. It is customary in Liberia for students whose performance is below a certain benchmark to have their scores written using red ink. For students whose performance is above a certain benchmark, their performance is written in blue ink. Parents are accustomed to interpreting red as performance under a certain benchmark, and blue as performance above a benchmark. It was agreed that teachers should follow this practice with the EGRA student report card.
- **Parent-teacher association (PTA) report card:** Teachers and principals will fill out a PTA card and discuss it with parents and teachers at the time of the PTA meeting.

The reading intervention materials described above are available upon request.

Intervention implementation

Coaches

- **Selection of Coaches.** Fifteen (15) Coaches were hired to support EGRA Plus: Liberia in 15 clusters (see Exhibit 6). Each Coach will serve eight schools: four FI schools and four LI schools. During the data-collection training that took place in mid-November 2008, LET chose the five best assessors who were willing to take the position of Coach. This meant that LET needed to identify 10 additional individuals. To this end, LET reviewed more than 45 applications for the Coach position. The first round of short-listing was done based on qualifications and years of experience. The second round of short-listing included interviewing 25 candidates. Out of these 25 candidates, LET further short-listed 15 individuals to take part in the training. The final round to select the 10 needed Coaches took place during the Coaches' training.

Exhibit 6. Selection of Coaches

Timeline	Selection Process
Nov 10–13	Five assessors selected for the Coach position
Nov 1–20	Call for applications issued; close to 50 resumes reviewed
Nov 21	25 candidates short-listed and interviewed
Nov 21–25	15 short-listed and invited for training
Dec 1–5	Final 10 selected out of 25

- **Training of Coaches**. The first reading workshop for Coaches was held December 1–5, 2008. Support to the workshop was provided by the MOE's EGRA representatives. The workshop was opened by the MOE EGRA Team and they stressed the importance of the project and called for the participants' commitment to the workshop

and to the project overall. By the end of the workshop, the MOE EGRA Team arranged the signing of letters of support for the implementation of the reading intervention. The letters were delivered by the MOE to the CEOs, while the Coaches delivered these to DEOs and to principals and teachers in the target schools. Upon the completion of training for Coaches but before their deployment, the EGRA team organized an additional day of training to firm up the plans and protocol for a five-day training for teachers in target schools, as well as for equipping Coaches with needed resource materials.

EGRA Technical Coordinator and Coaches during the training.

- **Retreat for Coaches.** The EGRA team organized a retreat for Coaches during which various techniques on how to more effectively support teachers were discussed (e.g., how to assist teachers who are teaching multigrade classes, how to maximize the little available time spent on teaching). But most importantly, the participants learned how to intensify the support to schools in order to ensure that the available months for teaching reading are used by teachers to the maximum extent possible. RTI's EGR Expert, Dr. Marcia Davidson, facilitated this week-long workshop in April 2009. More discussion on some of the challenges that both Coaches and teachers face can be found in the next section: 'Support to EGRA Teachers.'

- **Refresher training.** The week of August 10–14, 2009, was focused on the reading instruction workshop organized for Coaches and DEOs. The workshop was facilitated by Dr. Marcia Davidson, and it was attended by 15 EGRA Coaches, 16 DEOs, and 7 MOE staff members, including Assistant Minister Seibu. Almost all DEOs attended all five days of the workshop and participated in all of the activities, including teaching a lesson and being videotaped while teaching. It was quite remarkable to see their enthusiasm for the project and support and commitment to the coaches. Coaches were enthusiastic and their teaching skills had improved significantly since the initial training.

  We reviewed the instructional model, scope and sequence of the new program, and changes in the format and content. Coaches practiced all of the sounds of the vowels and consonants and received vowel and consonant charts with examples of words representing the correct vowel sounds. The primary focus of training was to require each coach to teach a selected lesson, with the ultimate goal of becoming fluent with both the content and instructional model. Toward the end of the workshop, we reviewed the time lines and content for the five-day teacher workshops to train teachers to use the reading manual. All DEOs supported the five-day training in their districts, and provided suggestions and support to coaches in the planning process.

  We were impressed with the coaches' skills during their teaching demonstrations that week. Most have learned the instructional model very well and some were able to

teach all components of a lesson quite well. Most used the pocket charts effectively and even addressed where a teacher needs to stand to make sure all students can see the chart while teaching. We will continue building their and DEOs' capacity in teaching reading.

- **Ongoing support to Coaches.** The EGRA technical coordinator ensured that continuous support was provided to Coaches via phone and technical and management visits. Coaches based close to the project office in Monrovia received support there. The EGRA team visited Coaches two times in the second quarter. The goals of these visits were to provide additional support and training to Coaches, distribute necessary materials and forms, and visit 5–6 treatment schools. In Year 2, four such visits are planned.

EGRA teachers

Coaches visited FI schools 2–3 times per month, while the visits to LI schools were once per month. To ensure consistency of support, visits followed a schedule and scope of work determined by the workplan. The implementation of the reading intervention in 60 FI schools commenced with teacher training in December 2008. The school academic year did not resume on January 5, 2009, as per the academic calendar, but rather on January 19, and this was due to a volunteer-teacher strike caused by the MOE's dismissal of all unqualified volunteer teachers.

While in some schools, mainly in Monrovia, teachers started teaching on time (January 5, 2009), most of the schools did not open their doors to children until late January 2009. Even when classes resumed, teachers focused on wrapping up exams and reports for Period 3, and in reality, the EGRA reading intervention did not start until mid-February 2009. The late start will have some impact on student performance. Our records also indicted that teachers taught reading on average 3–4 times a week instead of five times a week. Then, teachers and students were expected to be off during the Easter holidays (April 5–12, 2009). During the exams for Periods 4 and 5, little teaching took place; and the project commenced its midterm assessment in June 2009. Other factors that have most likely affected the intervention are insufficient skills for teaching reading, and lack of general skills such as lesson planning.

Once the schools opened, the project records indicate that Coaches visited FI schools on average 2–3 times every month. Some Coaches visited some schools more often because they needed more support. As mentioned, the schedule of visits by Coaches is standardized across all 15 districts. For instance, if a scheduled activity was a classroom observation in the second week of April, then all Coaches deployed to their schools at that time and they all conducted classroom observation. The same approach applies to LI schools. Overall, Coaches spent most of their time visiting schools, while preparations for these visits were done during non-school-visiting days, in the evenings, and over the weekends.

In addition to continually improving their skills in supporting teachers, another area in which the capacity of Coaches is being strengthened is data collection for the project M&E needs. Coaches' visits, depending on the schedule, focus on assisting teachers

with student assessment, classroom observation and support, school-based training for individual or all teachers in a given school, and informal assessment of student performance. As mentioned above, Coaches are given a clear schedule about when to visit schools and what tasks to perform during each visit.

In summary, the following activities were completed by Coaches in FI schools during the last year:

- All target grade 2 and grade 3 teachers in FI Schools were trained before December 25, 2008. A total of 160 teachers and principals were trained in FI Schools.
- Additional training for all teachers in FI schools through 2–3 visits per month. Some Coaches visited some schools more often if there was a need.
- Teachers in FI Schools were tasked with sending out the student report card and PTA report cards at the end of Periods 4, 5, and 6. As the time went on, we noticed that teachers were getting better at sending out student report cards. For the end of Period 4, we indicated that slightly more than a half of teachers, 53%, sent student report cards back to parents for Period 4. For Period 5, we noted an increase in this percentage, 86% of teachers sent out the student report card. With this, teachers have accomplished the target set out in the project's PMP.

LI implementation efforts

The same factors and assumptions described for FI schools above also apply to LI schools.

The LI schools were visited 1–2 times per month. The visits are scheduled around the end of school Periods, as follows: Coaches (1) assist LI schools with assessment and preparations of student report cards before the end of a given Period (e.g., Period 4), and then (2) go back after the period ends to confirm that teachers have indeed sent out the student report cards.

The first report cards were prepared for the end of Period 4 with support from Coaches. As with the FI schools, the data collected by Coaches indicate that 35% of teachers in LI schools actually sent the report cards out. While less-than-full participation was expected given that all teachers were new at both assessing student reading performance using stopwatches and then reporting back to parents, this was flagged as an issue. The EGRA team devised strategies for mitigating this situation for Periods 5 and 6, such as assisting teachers with preparing the student report card and then following up to see if these were actually sent out. Additionally, Coaches worked with the PTAs and teachers more closely for the rest of this academic year, which concluded on June 30, 2009, but most importantly this will also continue during Year 2. As a result, in Period 5, there was an increase in the number of teachers who sent out the student report card—it went from 35% to 69%.

Both FI and LI teachers struggled with performing some mathematical functions such as addition, division, and calculating averages. The EGRA team has purchased some calculators to be distributed to both FI and LI schools in Year 2 of the project. These will be distributed in Year 2 of the project. The EGRA team has already provided

additional stopwatches to all FI and LI teachers (one per school), given that most of the teachers did not have watches and schools did not have clocks.

In summary, the following activities were completed by Coaches in LI schools during this reporting period:

- All target grade 2 and grade 3 teachers in LI schools were trained as soon as schools went back to normal schedule in February 2009,
- Two visits to LI schools in support of preparations for Period 5 and 6 student report cards. One in April 2009 to support preparations of the student report cards for Period 5, and one in June 2009 to collect data on Period 5 student report cards and assist teachers with preparing for Period 6 student report cards.

III.4. Project technical and management support

Technical and management visits

The crisis caused by the volunteer-teacher strike in early January 2009 discouraged both teachers and Coaches to some extent. The EGRA team decided to visit Coaches and some schools, as well as to speak with DEOs as soon as possible. A technical and management visit by the EGRA team was organized in January 2009.

The EGRA Technical Coordinator during the first field visit.

The visit found a lot of disappointment and frustration expressed by volunteer teachers, as well as by regular teachers. With respect to the EGRA project, a significant percentage of EGRA-trained teachers are volunteer teachers. This situation presented a huge challenge to the project, for at least two reasons.

First, the EGRA team needed to train a few new replacement teachers, and to continue encouraging volunteer teachers to consider the EGRA project as a way to improve their skills. Second, a number of volunteer teachers have left schools, causing a bigger burden on the teachers staying behind, given that now they have to teach more children than before. As a result, there were instances where grades 2 and 3 were combined into one, principals had started to teach, and Coaches were also helping with teaching.

The EGRA team's second field visit was organized for March 1–20, 2009, with the aims of providing additional training to Coaches, reviewing the newly adjusted schedule, reviewing data collection forms, and collecting assessment instruments (used during the first informal assessment done by Coaches). Overall, the EGRA team visited all 15 target districts during each field visit.

The challenges listed above are mainly outside of the project's reach. However, a few others were mitigated through the efforts of Coaches and the project team:

- **Coaches training.** in April 2009, the EGRA team organized a retreat for Coaches during which various techniques on how to more effectively support teachers were discussed (e.g., how to assist teachers who are teaching multigrade classes, how to maximize the little available time spent on teaching). But most importantly, the participants learned how to intensify the support to schools in order to ensure that the available months for teaching reading are used by teachers to the maximum extent possible.

- **Teacher training.** The EGRA team intensified support by Coaches to schools in April, May, and June with the hopes that more support would lead to better results. In April and May 2009, Coaches went to each school twice, while in May 2009, and in June 2009 once. There were three instances that required training of new teachers. First, one teacher resigned due to old age and a replacement needed to be trained. Second, there were several situations in which teachers resigned because they did not receive any remuneration, so for this Coaches trained new teachers and principals to ensure continuity of the project. Third, a few volunteer teachers who were dismissed decided that they would not continue teaching.

  In response to the volunteer-teacher crisis, the EGRA team encouraged teachers to focus on their career development. On the advice of the MOE, the project team advised dismissed teachers to reapply for their positions. The EGRA team collected letters of application from grade 2 and 3 volunteer teachers. These applications (total of 47) were submitted to the MOE.

- **Transportation.** In five out of 15 districts, Coaches expressed problems with arranging transportation to schools. They praised the sampling approach and said that some of the schools that are supported by the program had not seen a lot of assistance before this project. However, they said that these schools are hard to reach. The EGRA team assessed the situation, and determined that Coaches will enter into service agreements with motorbike owners. In this way, a Coach can rent a motorbike for a day, which will enable him/her to spend a full day at the school. The EGRA team will continually assess this issue and provide necessary support to Coaches.

- **Low skill levels.** Coaches reported that most of the teachers they are supporting have insufficient skills in teaching reading, planning lessons, and managing their classrooms overall. Despite their hard efforts, almost half of the teachers in FI schools were behind schedule by at least one or two weeks. This can be attributed in part to the delay in the continuation of the school year, but the low skill levels of some teachers also play a role.

- **Parental support.** Coaches categorized the work of some PTAs as a formality, in that the PTAs are structured but are not functional. The baseline data show that when asked, almost all principals reported that they hold regular PTA meetings. When probed further, they indicated that for the most part, the majority of parents come to the PTA meetings. We suggest that better understanding of issues like

this will provide invaluable planning information for the MOE and point to the ways by which PTA support and influence can be leveraged to the extent possible. Note that in some districts, the PTAs are not functional at all, whereas in others, Coaches have already succeeded in reviving the PTAs. The EGRA team will continue working with schools and Coaches to organize cluster-level PTA meetings and garner broader support for the EGRA efforts. We hope that this effort will extend to other non-EGRA discussions between schools and PTAs.

III.4. Improved student reading performance

This section discusses the project's impact on improving student reading performance while at the same time discussing various challenges that teachers face on a daily basis.

The reading program is very specific and organized; it demands good planning skills from teachers and, most importantly, dedication. If followed, this program will lead to significantly improved student performance in reading in less than a year. However, teaching reading, and not language arts, is new to many teachers and they find it challenging. Teachers also struggle with lesson planning and delivery. The idea of working toward clearly specified goals while measuring their progress along the way is also demanding of teachers simply because it requires time, skills, and dedication. We also believe that teachers need to be held accountable for delivery and that accountability mechanisms, such as strong and empowered PTAs, need to be supported and strengthened systematically. Through the EGRA Plus: Liberia program, some of this accountability has been put into place. Teachers are continually assessed, they are supported by Coaches, and they know that the project is tracking improvements in progress. This introduces accountability for results, but it also adds factors of anxiety and pressure that may or may not be working in their favor.

Tied to the above, teachers noted that EGRA work is extra effort imposed in addition to the regular school curriculum. An important aspect of the project's support was to continually remind teachers that teaching reading *is* a subject that is part of the curriculum. In our discussions with discussions with the MOE, we suggested that teaching reading in all schools in Liberia become a policy. It needs to be noted that the MOE is very supportive of this direction and that at the outset of the project, the MOE instructed all teachers to teach reading five times a week for 45 minutes a day.

There is another very important aspect that may be of interest for further research by donors or the MOE, and that is "time on task." Some teachers' attendance is not regular. They come late, or leave early for various reasons such as second employment or going to the market. On most Fridays, there is hardly any academic activity taking place in schools. At best, schools in rural areas are open between 10:00 am and noon. On market days, as a rule, schools are closed as teachers *and* students go to the market. What is interesting is that attendance in public schools is highest during examination or testing periods, or when food is distributed. This was more pronounced in rural than urban areas. Another factor is that students often choose to work for companies in their area rather than go to school. This is also the case with

farm families; they keep their children to help on the farm. As a result, teaching reading takes place 3–4 times a week at best.

It is without a doubt that the above listed challenges have had some negative impact on the project. We suggest that the issue be analyzed carefully through a well-structured quantitative survey in order to give the MOE representative data at the national level. The factor that has the greatest positive impact on student performance is "time spent on task." In other words, the more time students spend learning and being taught, the better their performance.

Nevertheless, the advantage of a project like EGRA Plus: Liberia is that it is very focused, with clearly specified and measurable goals, and introduces a set of systems that can be used a as mechanism for supporting teachers. The backbone of the project is the school-based support provided by Coaches. The project introduced to Liberia a very modern and systematic system of site-based support. Research on education systems management stresses that if organized adequately, site-based support is the most effective form of in-service teacher training. The EGRA Plus: Liberia proved that this hypothesis holds true even in the most challenging environments. Analysis of the midterm and baseline data shows that children in treatment schools (both full and light intervention) outperform children in control schools in all tasks in both grades 2 and 3, and suggest that these differences can be attributed to the impact of the program.

In May and June 2009, the mid-term assessment was conducted in these same EGRA schools.[5] Students were assessed on a full battery of early grade reading tasks, including letter naming fluency, phonemic awareness, familiar word fluency, unfamiliar word fluency, connected text oral reading fluency, reading comprehension and listening comprehension. The test used for the-mid-term assessment was equated to that of the baseline assessment in order to ensure comparability of data. Analysis of the early grade reading assessment (EGRA) itself shows that the assessment is reliable and the various sub-tests assess different parts of the underlying early grade reading skills tie together well as a reliable test. In fact, the Cronbach's alpha results for both baseline and mid-term assessments showed reliability of about 0.85, which is quite good.[6] Here are the results:

- **Letter knowledge:** At the baseline assessment, Liberian children are capable of identifying the names of letters for the most part, with the average Grade 2 control child identifying 57.9 letters in a minute and the average Grade 3 child identifying 69.0 letters. At the mid-term, students in Grade 2 in full treatment schools showed a 51.9% increase in letters read, and Grade 3 students increased by 42.4%. Interestingly, children in light treatment schools increased their scores over baseline by 36.4% and 32.5% in Grade 2 and Grade 3, respectively. These were larger impacts than we expected, and with respect to

[5] Mid-term: A total of 175 schools were assessed, including 56 control, 59 full treatment, and 60 light treatment schools.

[6] Cronbach's alpha is a measure of how well a set of variables (in this case, Early Grade Reading Assessment subtasks) measure an underlying construct (in this case, early grade reading skill). In short, it is a measure of test reliability.

program impact, the increases had between a .47 Standard Deviation and .75 SD effect size, remarkably large.

- **Phonemic awareness:** Program impact on phonemic awareness was more moderate. Combining scores on Grade 2 and 3 shows that the number of sounds identified increased by 29.8% and 16.9% in full and light treatment schools, with an effect size of .22 SD and .06 SD, respectively.
- **Familiar words:** For familiar words, children in full treatment schools increased by 68.5% and light treatment schools by 54.2%. Since control schools increased their skills as well, the effect size was .09 and .05 SD, still notable, but not very large.
- **Unfamiliar (non-sense) words:** For unfamiliar words, both control and light treatment schools decreased the number of words read per minute between baseline and mid-term, with light treatment schools decreasing by 22.5%. On the other hand, full treatment schools increased by 78.7%, an increase of 1.5 words per minute on a baseline of 1.8 words. The effect size for full treatment schools was .25 SD.
- **Reading passage and comprehension:** Compared against baseline, full treatment children increased the number of passage words read correctly by 51.2%, while light treatment schools increased by 28.9%. Substantively, this means that full treatment schools increased their number of words read from 19.4 to 29.5 words per minute, while light treatment increased from 21.0 to 27.1. Compared against the gains for control schools, these impacts are strong and positive, of .42 SD and .19 SD, for full and light treatment schools. This means that at mid-term, children in full treatment schools were reading 7.2 words more per minute than those in control (29.5 compared to 21.0). The gap was also large for light treatment schools, with a difference of 6.1 words (27.1 compared to 21.0). This analysis shows clearly that there were moderate absolute gains, as well as significant program effects. As for comprehension, comparing the mid-term and baseline assessment scores, we find that full treatment schools increased their scores by 1.6% over baseline, while light treatment scores decreased by a 18.2%. This was less than the control schools decrease of 30.8%. This means that, at mid-term, children in full treatment schools scored 6.6 percentage points higher than those in control, with light treatment school students scoring 4.4 points higher. The program's effect size was .34 SD and .13 SD for full and light treatment schools. This equates to an increase of 8.2 percentage points more than control for full treatment and 3.2 percentage points more than control for light treatment
- **Listening comprehension:** For listening comprehension, the increases for full and light treatment schools were 128.3% and 130.4%, respectively. In fact, the scores increased from 34.3% to 78.3% correct for full schools and 33.6 to 77.5% for light treatment schools, large increases both. It should be noted that control schools increased their scores by 103.9%, so only be taking into account the baseline scores can a true program effect be estimated. Substantively, full treatment schools increased by 9.9% and light treatment

schools by 9.8% more than control schools, an effect size of .33 SD and .32 SD, respectively.

The large sample size allows more precision in the estimation of differences between Grades and gender. In all sub-tasks, Grade 3 students score statistically significantly higher than Grade 2 students, with more than 10 additional words read correctly per minute on the oral reading fluency sub-task. On the other hand, there are no differences between boys and girls achievement, except for in oral reading fluency and reading comprehension where girls outperform boys. This suggests that more work is necessary that the program increases the skills of boys in the more complex portions of reading.

Finally, the research design lends itself to more sophisticated analyses using differences-in-differences. These analyses show that the full treatment group increased student achievement for every sub-task, often with relatively large impacts on student achievement. The light treatment group increased student achievement in letter fluency, unfamiliar word fluency, reading comprehension, and listening comprehension.

In summary, given the impediments to program implementation, the short timeframe and the relatively modest cost of the program, EGRA Plus: Liberia outperformed expectations with respect to impact on student achievement, particularly in the full treatment schools. Those effects can be shown in Table 1 below. Note that the effects are moderate in size, always larger in full than light treatment schools, with effect sizes for full treatment schools from .15 to 77 SD. Impacts are largest in letter fluency, and smallest in familiar words.

Table 1: Program Effects and Effect Sizes by Treatment Group and Outcome

Outcome	Treatment Group	Program Effect	P-value	Effect Size
Letter Fluency	Light	13.62	<.001	.54 SD
	Full	19.56	<.001	.77 SD
Phonemic Awareness	Light	.18	.27	
	Full	.62	<.001	.27 SD
Familiar Words	Light	1.00	.30	
	Full	1.79	.07	.13 SD
Unfamiliar Word	Light	-.66	.09	
	Full	1.56	<.001	.26 SD
Oral Reading Fluency	Light	3.43	.02	.17 SD
	Full	7.39	<.001	.38 SD
Reading Comprehension	Light	3.21	.04	.13 SD
	Full	8.53	<.001	.35 SD
Listening Comprehension	Light	9.61	<.001	.47 SD
	Full	9.92	<.001	.48 SD

When compared against the PMP of February 2009, the results from the EGRA Plus are mixed. The PMP noted that the impact over baseline would be 20% increase for connected text fluency and reading comprehension in full treatment schools, while light treatment schools would see a 5% increase for those same tasks. The table below shows mixed progress towards that goal. It shows that for both boys and girls, for both Grade 2 and Grade 3, the light treatment schools made their target. By the same token, for both genders and both grades, the full treatment schools increased by more than 20%, often much more than 20%. The results were mixed, however, for reading comprehension, where only Grade 2 girls in full treatment schools made the PMP's target. It appears very likely, however, that the lower absolute changes on the mid-term reading comprehension assessment stemmed from the fact that the reading comprehension passage questions were not equated, while the oral reading fluency passage was, since in every case, there was a significant program effect over the changes in the control schools. [7]

Another important aspect that needs to be taken into account while discussing comprehension results is that research indicates that comprehension skills depend on fluent reading. That is, when children can read words quickly, they can devote thinking time to comprehension rather than decoding. Fluent reading is an important indicator because children who can read quickly and accurately without struggling to decode words are far more likely to be able to comprehend what they are reading. Thus, rate and accuracy scores provide an important proxy for reading comprehension. In Liberia, learners in Grade 2 and 3 are not yet decoding fluently (using 60 correct words read in one minute as the benchmark) and until they achieve greater fluency in decoding skills, comprehension skills may not increase significantly. With improved fluency this should also improve. There is also a somewhat definitional issue, in that if children simply do not finish the passage, they get asked less comprehension questions, thus by definition limiting their comprehension score. There is no doubt that he EGRA Plus: Liberia program made a great progress and set the teachers into the right direction with respect to improving children's fluency and automaticity. Such efforts need to be sustained over the next year and beyond.

Table 1a. Disaggregated analysis of percent increases over baseline by treatment status, grade and gender.

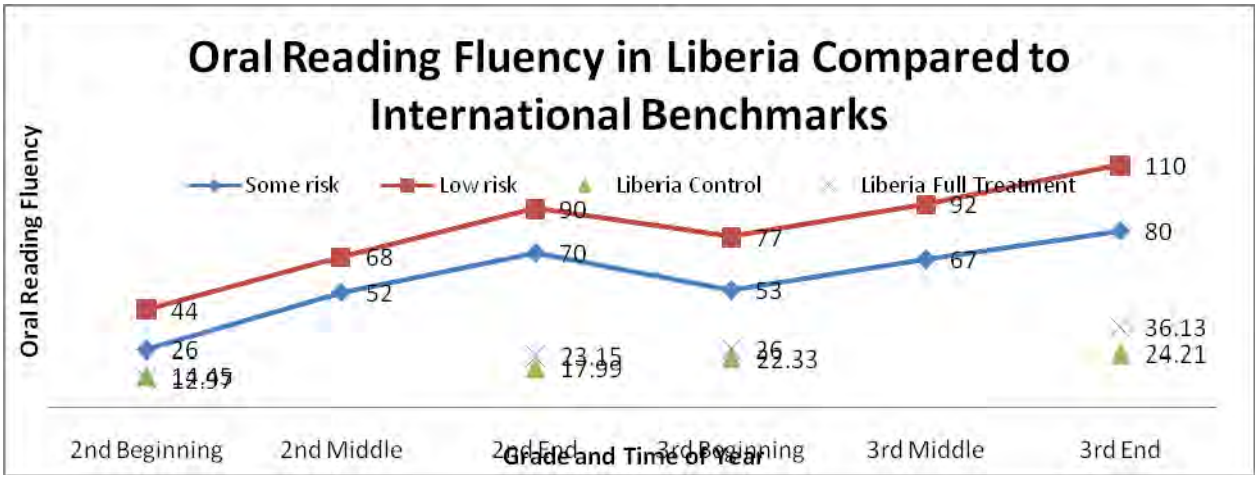
		Grade 2		Grade 3	
	Treatment	Boys	Girls	Boys	Girls
Oral Reading Fluency	Control	-3.9%	68.5%	2.0%	22.6%
	Light	**7.8%**	**60.2%**	**6.4%**	**54.5%**
	Full	**28.2%**	**150.7%**	**22.3%**	**61.2%**
Reading Comprehension	Control	-40.7%	-11.5%	-37.5%	-25.0%
	Light	-29.0%	-11.2%	-29.3%	-3.7%
	Full	-7.8%	**44.4%**	-8.2%	2.5%

[7] This type of finding is why many scholars prefer accounting for program impact in terms of percent change over baseline and control, so that any secular changes are accounted for in program impact.

Let's briefly compare these results with some international benchmarks.

Comparisons with international benchmarks. This paragraph provides some comparisons between oral reading fluency in Liberia (both control and full treatment schools) and the DIBELS benchmarks for oral reading fluency. Exhibit 7 below shows several things. The blue line shows the "some risk" benchmark for oral reading fluency, while the red line shows the "low risk" benchmark. Given that children in both treatment and control schools score below the "some risk" benchmark, this provides some evidence that while the program has had an impact, there remains quite a long way to go. One important thing to note from this figure is that at every level, children in full treatment schools outperform control schools, and the gap between those groups increases from the beginning of Grade 2 to the end of Grade 3. Visual inspection of this figure shows that the slope of the international benchmark curves are more pronounced than that for the Liberia curves. In other words, children in the benchmark schools increase their oral reading fluency within grades more than Liberian children do. This is important to note for the EGRA Plus program, since it can be argued that more needs to be done within both Grade 2 and Grade 3 to increase the slope of learning between the beginning and the end of the year. Some of this modest slope is of course due to the impediments to implementation and successful pedagogy in the 2008-2009 academic year. Finally, it appears that the Liberian children in Grade 3 (both control and full treatment) are not gaining proportionally as much in Grade 3 as they do internationally. In other words, it appears that some focus on Grade 3 achievement is necessary, and that while the program appears to have made a dent in the problem of early reading achievement, much work remains to be done.

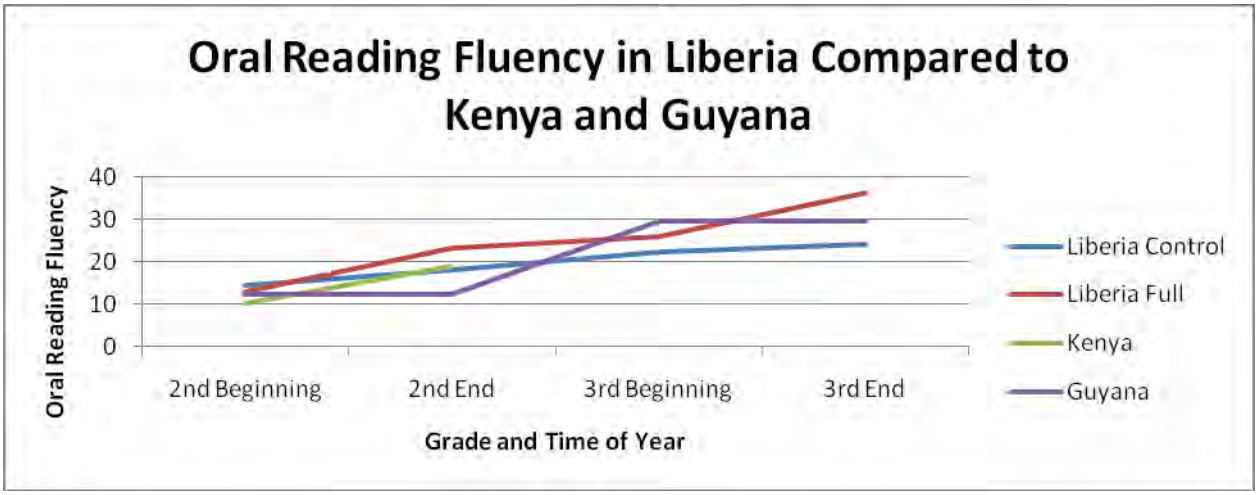
Exhibit 7. Oral reading fluency scores compared to international benchmarks



Comparisons with Kenya and Guyana. While the discussion above is interesting, and there is some value in comparing Liberian children to what is found in the US DIBELS benchmarks, it might be even more valuable to compare against the oral reading fluency scores in other countries, namely Kenya and Guyana. Note that even this is fraught with problems given the language differences and the local adaptation of EGRA in each country. Even in countries where English is assessed, the

assessments can be quite different since each story is locally created. That said, it is worth taking a look at the comparisons between students. A cursory glance shows that children in Liberian schools score as low as students in both other countries, and lower than Guyanese students in Grade 3. The slope of their learning between the beginning and end of Grade 2 and 3 is less than what occurs in both Guyana and Kenya, and the increase between Grade 2 and 3 is smaller than what exists elsewhere. Therefore, compared to Kenya and Guyana, children in control schools are learning to read much too slowly. The story is slightly different for children in full treatment schools, where the increases are more dramatic across the figure (see Exhibit 8).

Exhibit 8. Oral reading fluency scores in Liberia compared to other developing countries



Finally, for this section, we would like to provide a few implications for the last year of the EGRA Plus: Liberia program, but some of them are targeted at reading instruction in general in Liberia.

- **Ensure that adequate emphasis is placed on the achievement of boys in the more complex reading skills.** While boys and girls scores increase by nearly the same amount for the more simple EGRA tasks, a gender gap exists for unfamiliar words, oral reading fluency[8] and reading comprehension. Note that these are the areas for which reading skills and strategies are applied, rather than the relatively simple areas of letter fluency and familiar word fluency, where children can simply memorize to do better. Since the ultimate goal of EGRA Plus is to increase reading ability and comprehension, and a gender gap appears to be widening, the program should consider responding by heavily involving boys and encouraging reading for fun amongst young boys.

[8] An unsystematic evaluation of the mid-term assessment passage to understand whether it might be gender biased shows that it is not likely to be gender biased. The story is about two boys playing a game, and if anything, it is more likely to be gender biased in the other direction.

- **Move past focus on letters and words and expand focus on reading comprehension.** Gains on letter fluency in this mid-term assessment are quite substantial. However, while statistically significant, the increases in other portions of reading are comparably smaller. Therefore, further concentration should be placed on ensuring that teachers in EGRA Plus schools expand the amount of time spent on decoding, reading aloud, reading silently, and comprehension strategies. These strategies should be done in conjunction, such that while effort is necessary to encourage accurate decoding, this must not be done while ignoring reading comprehension strategies.

- **Decoding skills remain lacking, and this has relevance to higher order skills.** While the EGRA Plus program increased students' ability to read unfamiliar words, applying the decoding and phonemic awareness skills acquired from the program, the absolute gains are still very small. For the most part, children remain at basic levels of decoding skills, which has relevance with oral reading fluency, and of course, reading comprehension. It appears that children in Liberia are not very skilled (and very slow) at unpacking new words – 77.0% of children discontinued this task. The program was able to allow about 10% of non-decoders to start (70.8% of full treatment students discontinued, compared to 81.1% of control students), but this remains insufficient for the type of reading fluency that EGRA Plus hopes to encourage.

- **Test equating and recalibration remains an important technical task for EGRA Plus.** It is possible that the modest progress on the reading comprehension task is due not to a lack of understanding amongst children but to the fact that while the reading passage was calibrated the reading comprehension questions associated with the passage were not. While the technical interest of the EGRA Plus team in calibrating the mid-term and baseline passage is laudable, there remains some concerns about the equality of the comprehension questions, which have similarly disparate findings with the effect of being in the mid-term being -7.8 percentage points . Likewise, it appears that the listening comprehension questions are much easier than they were at baseline, with the effect of being in the post-assessment alone at 34.3 percentage points. It is highly unlikely that the entirety of this difference was related to the effect of 6 months of school, and a systematic comparison between these tasks is critical.

- **It is recommended that the Liberian Ministry of Education develop country-level benchmarks for reading.** The figure we used was an example of potential benchmarks, using the 90th percentile of reading scores as a benchmark. That was arbitrarily chosen by a non-Liberian evaluator, and was picked without an evaluation of the appropriate skills that each level of child will achieve based on the curriculum. Such a benchmark development process will help to target reading intervention energy, and allow for within country, rather than across country comparisons.

- **Considerably more emphasis on the within Grade achievement is necessary.** While comparisons to international benchmarks are not ideal, it appears that Liberian

children's progress within a grade is too modest to allow children to achieve reading fluency by Grade 4 when most of instruction is provided under the assumption that children can already read. If the Grade 2 (beginning to end) gain in oral reading fluency is only 4 words on average, and Grade 3 gains are nearly 2.5 (in full treatment schools, 10 words per minute), then children are not getting enough within a grade to be able to lessen the gaps between themselves and children elsewhere, even within Sub-Saharan Africa.

- **While community knowledge of reading achievement is powerful, it is insufficient to increase the more complex aspects of reading.** The impact of the light treatment children on many of the reading outcomes shows that with a simple increase of focus on reading outcomes, student outcomes can increase. This is particularly the case in letter naming fluency. However, for the more technical aspects of reading, dependent on decoding and comprehension strategies, such as reading comprehension, oral reading fluency and unfamiliar word fluency, teacher professional development is necessary to provide techniques and strategies for the development of these areas of expertise among children. The experience of the full treatment schools shows that while relatively modest investments in teacher training can pay large dividends, the experience of light treatment schools shows that these investments remain critical. Attention and focus is not enough, training and skills are necessary.

- **Reading comprehension remains an important goal for reading acquisition.** It should be noted that even with interventions like EGRA Plus, reading comprehension increases remain relatively modest. More work is necessary to institutionalize reading comprehension and reading fluency skills in in-service and pre-service teacher training, to increase children's ability to access these skills, and to have experience with them early in a child's educational career.

Note. *More analyses of program impact can be found in our EGRA Mid-Term Assessment report that is posted on EdData website www.eddataglobal.org and it is available upon request.*

III.5. Capacity-building efforts for MOE and sustainability of reading efforts

A component of the EGRA Plus: Liberia contract is to assist in building the capacity of MOE staff. Two annual capacity-building workshops have been planned (2008/09 and 2009/10), with topics in two areas: (1) reading instruction and (2) design and implementation of education student-assessment-based surveys for quality assurance.

To date, three workshops focusing on reading instruction have been organized: (1) initial training for Coaches in December 2008; (2) retreat for Coaches in April 2009; and (3) refresher workshop for Coaches with a focus on reading instruction, August 2009. All three workshops were attended by the MOE staff, with much higher representation in April 2009. Two (2) MOE experts who were assigned to form an

MOE EGRA Core Team attended the first workshop, whereas in April 2009, seven MOE representatives attended the meeting. For the third reading workshop, the MOE EGRA Core Team attended the meeting along with 15 DEOs from EGRA districts.

In addition, the EGRA team also organized two assessor training workshops that focused on implementing EGRA assessments—baseline and midterm assessments. At both of these workshops—baseline assessor training in November 2008 and midterm assessor training in May 2009—dozens of MOE staff members participated and were fully trained in implementing EGRA tools. Finally, in September 2009, we organized the workshop on the use of data in decision making using EGRA Plus: Liberia as a case in point. (Given that all other workshops have been described to some extent, in Box 1, we briefly provide an overview of the workshop held in September 2009.)

With this, RTI has fulfilled its contractual obligations. Nevertheless, since its inception, EGRA has grown very important in terms of its value to the MOE. In May 2009, the EGRA team met with both USAID and MOE to discuss providing more opportunities for capacity building through the existing project, but also to start discussing the future of the reading intervention in Liberia beyond the project itself.

The August 2009 reading workshop marked the beginning of more in-depth involvement of DEOs from the EGRA target districts. During Year 1 they were engaged in supporting the project at the district level. However, from August 2009 onwards, they were fully involved in the training activities and the support provided to EGRA target schools.

DEOs were all trained in instructional methods for reading in August 2009 and between September and December 2009, each DEO will make at least four visits to their EGRA schools together with Coaches. This will give them opportunities to practice some of their skills in teaching reading as well as to provide pedagogical support to teachers. They will then attend a refresher training in December 2009, once again, together with Coaches. The same number of visits to EGRA schools is planned for the second semester (January–May 2010). Finally, DEOs will be invited to attend the final reading policy workshop planned for the end of the project.

At the national level, the capacity building of MOE staff will also be deepened to allow more opportunities for turning newly acquired knowledge into practice. Dozens of MOE staff learned how to assess student reading, and most of them were also deployed for data collection. In year two of the project, they will be coupled with the project staff to learn how to calibrate (equate) instruments, be co-facilitators of assessor training, supervise data collection, do data entry and analysis, supervise the implementation of reading intervention, and assist with the training and support provided to teachers.

The goal of these capacity-building efforts is to provide a foundation for expansion of the reading support to all of the schools in the current EGRA districts, as a first step. It is our hope that the donors and MOE will recognize these efforts and start planning soon on how to ensure that all children in Liberia can experience the same increases in their reading skill early.

Box 1. Education Survey Course in Liberia

The Education Survey Course is a one-week introductory course on surveys and statistics that has two primary goals. First, it seeks to train education officials on how to design and carry out education surveys to collect baseline or monitoring data, and second, it seeks to train them in how to analyze, present and use this survey data to improve overall education quality by understanding the educational challenges and interventions involved. This course assumes a basic to intermediate knowledge of Microsoft Excel. However due to the low skill levels of participants in both Excel and statistics, the Liberia course was shortened from its original format of 14 sessions to include nine sessions. It included the following:

1. Introduction to the course
2. Defining research question and identifying appropriate research tools
3. Planning a survey and overview of the survey research cycle
4. Random Sampling
5. Selecting the sample
6. Questionnaire design
7. Practice and pilot the questionnaire (in groups)
8. Data analysis
9. Presenting data

While going through each of these sessions, participants learnt some of the key concepts involved in conducting surveys such as the importance of drawing a random sample, deciding the appropriate sample size, calculating measures of central tendency like mean, median and mode, measures of deviation like standard deviation and confidence interval, and presenting data using various types of charts and graphs.

V. Project Deliverables–Year 1

Exhibit 9 lists all of the deliverables required in the EGRA project award for Year 1.

Exhibit 9. Progress toward project deliverables–Year 1

EGRA Plus: Liberia Deliverables for Year 1	Date Due	Status (September 30, 2009)	Notes
1. Milestone/Annual Workplan	November 7, 2008	Completed	The annual workplan was submitted to USAID on time. The workplan included a logistics and mobilization plan that was discussed and agreed upon among RTI, USAID, and MOE. A shorter version of the workplan was presented to and discussed with MOE
2. MoU between the study implementer and MOE	November 14, 2008	Completed	The MoU between RTI and MOE was signed on November 14, 2008, at the EGRA Plus: Liberia project launch event.
3. a. Approval letter for visiting the selected schools obtained from the MOE	November 11, 2008	Completed	The letters of support for the baseline assessment and the intervention was signed by the Deputy Minister Hester Williams-Catakaw and Assistant Minister Siebu Kerturah. Copies of the letter were given to the assessors and Coaches.
3.b. Baseline data–EGRA conducted in target schools	December 12, 2008	Completed	Out of 180 schools, 176 were assessed. The remaining 4 schools were assessed in early 2009.There was no need to enter this data given that the 176 schools that were assessed provide sufficient information for statistical analyses.
3.c. 18 Enumerators trained and deployed	November 16, 2008 for baseline. May 15, 2009 for midterm.	Completed	A total of 28 enumerators were trained (inclusive of MOE staff members); 18 were engaged and deployed to the field. For the midterm assessment, a total of 47 assessor candidates were trained (inclusive of MOE staff); and 18 were engaged into data collection.
3.d. Data entry clerks trained	November 25, 2008	Completed	The MOE EMIS staff members were trained for EGRA data entry.
3.e. Data entry completed	December 19, 2008 for baseline. August 31, 2009 for mid-term	Completed	By January 16, 2009, data were entered. The delay was caused by a need to score instruments, which proved time consuming for the subcontractor. Midterm assessment data was entered in August and early September 2009.
3.f. Data analyzed and two final assessment reports written (for November 2008 and June 2009 assessments)	December 31, 2008; August 31, 2009	Completed for baseline. Completed for midterm with a delay.	The baseline report was written with a delay given that data cleaning took longer than planned. This "lesson learned" was taken into account and a new data entry system was developed. A brief data analytic report on midterm assessment data was prepared in September 2009. The full report is expected in October 2009.
3.g. Data sets provided to MOE and USAID	February 28, 2009, for baseline. October 30, 2009, for midterm.	Completed for baseline. Completed for mid-term with a delay.	Datasets from baseline have been shard with the USAID and MOE. Midterm data will be shared in October 2009.
4. Train sufficient teacher trainers to implement LI and FI (estimate 16 needed)	December 5, 2008; April 9, 2009; August 14, 2009	Completed	A total of 25 candidates were trained; 15 were hired to serve schools in 15 chosen districts. Coaches have been retrained in April 2009 (midway), and then in August 2009 (refresher for Year 2 of the project).

EGRA Plus: Liberia Deliverables for Year 1	Date Due	Status (September 30, 2009)	Notes
5. Suitable literacy materials identified, MOE and USAID approval obtained, and materials provided in sufficient quantities to supply grade 2 and 3 classrooms in at least the 60 FI schools	November 30, 2008; July 31, 2009	Completed	Planned materials for teachers and students identified and approved by the MOE and USAID. Sixty FI schools received sufficient quantities of OYSS/Stella Maris books to be used to build small libraries in grades 2 and 3. In July 2009, the project simplified the reading intervention manual based on the lessons learned in the first several months of intervention. Sufficient quantities of resource materials were handed out to target schools in September 2009.
6. Two annual policy and capacity-building workshops held with key stakeholders. One will focus on building the capacity of the MOE's EMIS officers, while the other will focus on building the capacity of teacher trainers (estimated 16 of them)	December 5, 2008; September 30, 2009	Completed	In Year 1, EGRA project has conducted **six** capacity-building workshops at which MOE staff were present and trained, as follows: Training of coaches was completed on December 1–5, 2008. Additionally, we organized a retreat for Coaches that was attended by MOE staff as well in April 2009. Finally, a refresher workshop for Coaches, DEOs, and MOE staff was held in August 2009. The training for assessors took place in November 2008, and was an important capacity-building event for the MOE staff. In May 2009, the EGRA assessor training was organized for the midterm assessment at which MOE assessors (15) were trained as well. Finally, in September 2009, RTI held a policy workshop titled "Use of data in decision-making."
Approximately 240 teachers trained in FI schools	Year 1: December 24, 2008 Year2: September 5, Sep 2009	Completed	Year 1. A total of 160 teachers (inclusive of principals) in FI schools were trained. The target of 240 teachers in FI schools could not be met due to a lower-than-anticipated number of grade 2 and 3 teachers. Year 2. A total of 212 teacher and principals were trained in September 2009.
Approximately 240 teacher resource kits distributed to teachers in FI schools	Year 1: December 31, 2008 Year 2: September 30, 2009	Completed	Year 1. A total of 167 teachers and principals received a package consisting of reading instruction manuals and student report card manuals. Year 2. A total 212teachers and principals received a package consisting of reading instruction manuals and student report card manuals. (note that more produced and kept with Coaches in case replacement is needed)
Eight follow-up capacity-building workshop training sessions held for teachers in FI schools	June 30, 2009	Completed	Note: In consultations with USAID, this number was lowered to five monthly visits. However, Coaches have visited FI schools more often than this. For example, in the third quarter, they made four visits per each school in April and May 2009 and one visit in June 2009. Goals for this quarter and for Year 1 of the project have been met.
Schools, parents, and students in 60 LI and 60 FI schools informed about and understand the implications of their students' reading performance	End of Period 4 of academic year	Completed	Teachers in FI schools were informed about low student reading performance. Teachers in LI schools were informed about the same at the time of their training in early 2009. As part of the project design, teachers are tasked with development of student report cards three times in Year 1—Periods 4, 5, and 6. All of these have been completed and an **increase** in both FI and LI schools in the number of student report cards sent out by teachers has been recorded.

EGRA Plus: Liberia Deliverables for Year 1	Date Due	Status (September 30, 2009)	Notes
At least one communication tool developed and used to communicate findings of assessments to diverse audiences of education stakeholders in Liberia	October 2010	Concept developed and provided to USAID for comment	The first draft of the proposed communication strategy was submitted to USAID in July 2009. The commencement of implementation is expected in November 2009.
Appreciably higher reading fluency and comprehension rates of students in FI classrooms	June 30, 2009 New date: September 30, 2009	Completed	After 3.5 months of reading intervention, the FI schools have outperformed control schools on all tasks tested by the EGRA tool.
Measurably improved quality of instruction in LI classrooms	June 30, 2009	Completed	After 3.5 months of reading intervention, LI schools have outperformed control schools on all tasks tested by the EGRA tool.
Copies (hard and electronic) of all development experience documents submitted to Center for Development Information and Evaluation (CDIE) as required under the Blanket Purchase Agreement	Ongoing	Completed for Quarterly Performance Report 1 (QPR1), QPR2, QPR3	First and second quarterly progress reports submitted to CDIE, as well as shared with partners and stakeholders
Annual Workplan for fiscal year 2010	August 31, 2009	Completed	Annual workplan was submitted in draft format and finalized by September 30, 2009.
Three quarterly reports	Jan 31, Apr 30, Jul 31, 2009	Completed	Three QPRs have been submitted according to the fiscal year calendar.
Annual report (end of 4th quarter)	October 30, 2009	Completed	Annual report is submitted as planned on October 30, 2009.

VI. Progress on Project Performance Indicators

There are three points that we would like to mention for this section.

First, Some of the Year 2 activities that are listed in the workplan and PMP, such as training of teachers and Coaches and distribution of resource materials took place in August and September of 2009, thus prior to the commencement of the second academic year. We will report on these figures as part of Year 1 reporting, and for future reporting indicate that these Year 2 targets were accomplished in the first year of the project. The following indicators fall into this category: "2.2. C," "2.2. D," "2.2 E," and "2.3. A," and their relevant counterpart indicators in the section on U.S. Government Foreign Assistance Framework Indicators for EGRA Plus.

Second, we recalculated comprehension scores to be presented in terms of percentages of correct answers responded.

Third, for reading and comprehension scores, we did not include results by score for this draft annual report. We will do so while waiting for the feedback from USAID.

Exhibit 10. Performance indicators tailored for EGRA Plus: Liberia

Strategic Objective: Improved Student Reading Performance in Early Grades			
	Year 1 (Oct 7, 2008–Sept 30, 2009)		**Year 2 (Oct 1, 2009–Oct 10, 2010)**
	Baseline (2008)	Midterm (2009)	Final (2010)
SO A. Average correct words read per minute (cwpm) in connected text.[i] (Disaggregated by LI, FI, control, grade 2, 3; male/female; urban/rural).[ii] [Annual]	Grade 2: FI: 12.966 (M: 15.326; F: 10.688); LI: 16.034 (M: 17.572; F: 14.080), C: 14.446 (M: 16.407; F: 11.785) Grade 3: FI: 26.001 (M: 27.659; F: 26.001); LI: 26.699 (M: 28.525; F: 24.101), C: 22.335 (M: 24.811; 19.165)	Grade 2: FI: 24.41 LI: 23.24 C: 22.8 FI: 78.49% increase over baseline. LI: 29.63% increase over baseline. C: 24.50% increase over baseline. Grade 3: FI: 36.13 LI: 34.25 C: 24.21 FI: 38.96% increase over baseline. LI: 28.28% increase over baseline. C: 8.42% increase over baseline. [Targets for Year 1: 20% increase over baseline (FI); 5% increase over baseline (LI)iii]	TBD [Targets for Year 2: 35% increase over baseline (FI); 10% increase over baseline (LI)

SO B. Average score of participating students on comprehension (story understanding) exercise. (Disaggregated by LI, FI, control, grade 2, 3; male/female; urban/rural).[iv] [Annual]	Grade 2: FI: 16.8 LI: 20.48 C: 21.41 Grade 3: FI: 30.96 LI: 31.84 C: 29.89	Grade 2: FI: 19.37 LI: 21.91 C: 16.08 FI: 15.30% increase over baseline. LI: decrease over baseline of: -21.48% C: decrease over baseline of: - 28.21% Grade 3: FI: 25.83 LI: 24.34 C: 22.07 FI: decrease over baseline of: -5.14% LI: decrease over baseline of: -16.33% C: decrease over baseline of: -33.26% [Targets for Year 1: 20% increase over baseline (FI); 5% increase over baseline (LI)v]	TBD [Targets for Year 2: 35% increase over baseline (FI); (10% increase over baseline (LI)]
Intermediate Result 1: Student reading performance accurately assessed			
	Year 1		Year 2
1.A % of unusable instruments following data collection [Biannual (per assessment)]	Baseline (2008)	Midterm (2009)	Final (2010)
	1.22% (36 out of 2,957 observations were excluded) [Target for baseline: less than 5% of unusable instruments]	0% of unusable instruments [Target for midterm: less than 5% of unusable instruments]	TBD [Target for final assessment: less than 5% of unusable instruments]

Intermediate Result 2: Effective remedial interventions designed for teaching reading								
Sub-Intermediate Result 2.1: Effective communication of EGRA results to school communities in Light and Full Intervention schools								
	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.1.A % of teachers who disseminated student report card to parents after last term (disaggregated by LI, FI) [Quarterly]	n/a (not applicable)	FI schools: 53.3% LI schools: 35.6%	FI schools: 86% LI schools: 69%	FI schools: 86 % (data from Q3) LI schools: 69 % (data from Q3) [Year 1 target for FI: 80%] [Year 1 target for LI: 30%]				TBD [Year 2 target for FI: 80%] [Year 2 target for LI: 60%]

Sub-Intermediate Result 2.2: Improved teacher performance in teaching reading								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.A % of teachers in FI schools observed using the reading kit materials provided by project during last observation. [Quarterly]	n/a (not applicable)	54.3%	92%	92% (data from Q3) [Year 1 target: 80%]				TBD [Year 2 target: 85%]
2.2.B % of FI teachers following the schedule of intervention. [Quarterly]	n/a (not applicable)	57.1 %	77%	77% (data from Q3) [Year 1 target: 80%]				TBD [Year 2 target: 85%]

Sub-Intermediate Result 2.2: Improved teacher performance in teaching reading								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.C Number of teachers/educators trained with U.S. Government (USG) support in past reporting period (disaggregated by male/female, FI and LI schools). [Quarterly]	**FI schools: teachers/ principals** Teacher Female: 19 Teacher Male: 91 Principal Female: 3 Principal Male: 54 Total teachers: 110 Total principals: 57 TOTAL teachers/ principals: 167 **Coaches:** 15 Males: 9 Females: 6	**FI schools: teachers/principals** 7 male new teachers (110 teachers: refreshers through monthly visits by Coaches; we are not reporting on this) **LI schools: teachers/principals** (face-to face training) Teacher female: 26 Teacher male: 82 Principal female: 7 Principal male: 45 Total teachers: 108 Total principals: 52 TOTAL teachers/ principals:160	**FI schools: teachers/ principals** 1	**FI schools**: Total: 175 Teachers: 99 male; 19 female Principals: 54 male; 3 female. **LI schools:** Total: 60 principals/ teachers Teachers: 82 male; female 26 Principals: 45 male; 7 female **Coaches:** 15 Males: 9 Females: 6 **Total: 175** teachers/ principals **Total teachers cumulative:** 247 **Total Coaches cumulative:** 30 [Year 1 target: 360 teachers total + 15 Coaches] [vi]				TBD [Year 2 target: 360 teachers total + 15 Coach-es]

Sub-Intermediate Result 2.2: Improved teacher performance in teaching reading								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.D Number of hours of reading instruction training provided by Coaches to teachers in the past reporting period (FI schools) [Quarterly]	**Face-to-face training:** 6,400 hours	**Monthly visits:** FI: 2,970 hours LI: 1,184 hours (Cumulative progress for this reporting period: 10,554)	**Monthly visits:** FI: 1,475 hours LI: 457 hours (Cumulative progress for this reporting period: 12,486)	**Face to Face training for Y2:** 6,400 hours **Total hours for Year 1** 16,886[vii] [Year 1 target: 11,200]				TBD [Year 2 target: 14,080]
2.2.E Number of teacher resource kits distributed to teachers (disaggregated by FI and LI schools)	**FI schools:** 160 teacher kits	**LI schools:** 240 teacher kits (student report card)		**FI schools:** 255 **LI schools:** 255 **Total cumulative FI:** 415[viii] **Total cumulative LI:** 495[ix] [Year 1 target: 360]				TBD [Year 2 target: 360]

Sub-Intermediate Result 2.3: Improved availability of appropriate literacy materials for students								
	Year 1 (Oct 7, 2008-Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.3.A Number of textbooks and other teaching and learning materials provided with USG assistance (disaggregated by FI and LI schools) [Annual]	**FI schools** Books: 26,250 (target textbooks: 26,760) Teacher kits: 160	**LI schools** Teacher kits: 240		**FI schools** Books: 6528 **Total cumulative books:** 33268[x] Teacher Kits 255 **LI schools:** teacher kits: 255 **Total cumulative FI:** 415[xi] **Total cumulative LI:** 495[xii] [Year 1 target: 26,760 (18,000 compilations + 8,400 OYSS books (1,200 * an average of 7) + 360 teacher resource kits + manuals][xiii]				TBD [Year 2 target: 26,760 (18,000 compila-tions + 8,400 OYSS books (1,200 * an average of 7) + 360 teacher resource kits + manuals]

Intermediate Result 3: Strengthened in country capacity for data collection, analysis and dissemination								
	Year 1 (Oct 7, 2008-Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.A Number of MOE staff that participated in enumerator training [Annual][xiv]	15 at baseline (Total 25 trained)		15 assessors at midterm + 4 MOE officers (Total trained 47)	30 + 4 = 34 (cumulative) [Year 1 target: 30]				TBD [Year 2 target: 10]
3.B Number of MOE staff that were deployed for EGRA data collection [Annual]	10		4	14 [Year 1 target: 15]				[Year 2 target: 2]
3.C Number of MOE staff that participated in EGRA data entry application development [Annual]	1 + 6 data entry clerks		1	8 [Year 1 target: 7]				[Year 2 target: 1]
3.D Number of MOE staff that participated in data entry training [Annual]	7		1	8 [Year 1 target: 7]				[Year 2 target: 1]
3. E Number of MOE staff that performed EGRA data entry [Annual]	7		1	8 [Year 1 target: 7]				[Year 2 target: 1]
3. F Number of MOE staff that participated in training on EGRA data analysis and dissemination [Annual]			25 MOE staff members	25 MOE staff members. [Year 1 target: 20]				[Year 2 target: 20]

U.S. Government Foreign Assistance Framework Indicators for EGRA Plus								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Number of learners enrolled in USG-supported primary schools or equivalent nonschool settings (disaggregated by male/female) [Annual]	10,719[xv] Actual data for baseline assessment Nov 08 Control schools 3178 FI: 3449 LI- 2729 Total - 9355[xvi]			10,719 (inclusive of control schools) Actual at midterm assessment Jun 09 Control - 2639 FI – 3026 LI - 3140 Total - 8085[xvii] [Year 1 target: actual 10,719]				TBD [Year 2 target: actual]
Number of teachers/educators trained with USG support (disaggregated by male/female), (same as Indicator 2.2.C above) [Annual]	**FI schools:** Teacher female: 19 Teacher male: 91 Principal female: 3 Principal male: 54 Total teachers: 110 Total principals: 57 TOTAL: 167 Total principals: 52 TOTAL: 160 **Coaches:** 15 Males: 9 Females: 6	**FI schools:** 7 male new teachers 110 teachers: refreshers through monthly visits by Coaches **LI schools:** (face-to face training) Teacher female: 26 Teacher male: 82 Principal female: 7 Principal male: 45 Total teachers: 108	**FI schools: teachers/ principals** 1	**FI schools**: Total: 175 Teachers: 99 male; 19 female Principals: 54 male; 3 female. **LI schools:** Total: 60 principals/ teachers Teachers: 82 male; female 26 Principals: 45 male; 7 female **Coaches:** 15 Males: 9 Females: 6 **Total: 175** teachers/ principals **Total teachers cumulative:** 247 **Total Coaches cumulative:** 30				[Year 2 target: 360 teachers + 15 Coaches]

U.S. Government Foreign Assistance Framework Indicators for EGRA Plus								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
				[Year 1 target: 360 teachers + 15 Coaches][xviii]				
Number of textbooks and other teaching and learning materials provided with USG assistance (same as Indicator 2.3.A above) [Annual]	**FI schools:** Textbooks: 26,250 Teacher kits:160 (target textbooks: 26,760)	**LI schools:** Teacher kits: 240		**FI schools** Books: 6528 **Total cumulative books:** 33268[xix] Teacher Kits 255 **LI schools:** teacher kits: 255 **Total cumulative FI:** 415[xx] **Total cumulative LI:** 495 [Year 1 target: 26,760 (18,000 compilations + 8,400 OYSS books (1,200 * an average of 7) + 360 teacher resource kits + manuals][xxi]				TBD [Year 2 target: 26,760 (18,000 compila-tions + 8,400 OYSS books (1,200 * an average of 7) + 360 teacher resource kits + manuals]
Number of laws, policies, regulations, or guidelines developed or modified to improve equitable access to or the quality of education services. [Annual]								TBD[xxii] [Year 2 target: 1 reading policy]

U.S. Government Foreign Assistance Framework Indicators for EGRA Plus								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Number of host country institutions with improved management information systems as a result of USG assistance. [Annual]				To be decided by USAID. We believe that the program accomplished this target. [Year 1 target = 2: LET + MOE]				TBD [Year 2 target = 2: LET + MOE]
Number of host country institutions that have used USG-assisted EMIS information to inform administrative/management decisions. [Annual]				1 [Year 1 target = 1: MOE]				TBD [Year 2 target = 1: MOE]
Number of people trained in monitoring and evaluation with USG assistance. [Annual]		25 enumerators 25 Coaches 3 LET staff Total: 53	34 at reading workshop 47 at assessor workshop Total: 81 Total cumulative 134	Refresher reading workshop 46 26 at capacity building workshop September 2009 Cumulative: 206 (M- 136; F – 70) [Year 1 target: 46]				TBD [Year 2 target: 46]
Number of people trained in research with USG assistance. [Annual]				26 at capacity-building workshop September 2009 Total: 23 [Year 1 target: 20]				TBD [Year 2 target: 20]

U.S. Government Foreign Assistance Framework Indicators for EGRA Plus								
	Year 1 (Oct 7, 2008–Sept 30, 2009)				Year 2 (Oct 1, 2009–Oct 10, 2010)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Number of people trained in strategic information management with USG assistance. [Annual]	7		7 +1	Cumulative 15 [Year 1 target: 7]				TBD [Year 2 target: 7]

VII. Next Quarter Activities (October–December 2009)

Exhibit 11. Planned activities for October–December 2009

Major Workplan Activities	Dates	Location
Train all LI teachers in the use of student report card and student assessment	Oct 3–7, 2009	Liberia
EGRA Team management and technical visit to EGRA districts and Coaches.	Oct 15–Nov 15, 2009	Liberia
Continue supporting Grade 2 and 3 teachers in all target schools (FI and LI)	Oct 7–Dec 15, 2009	Liberia
Finalization of the communication tool	Oct 15–30, 2009	Liberia
Roll-out of the communication tool	Nov 25–Dec 25, 2009	Liberia
Reading instruction workshop for Coaches, DOEs and MOE staff (end of Semester 1)	Dec 19–22, 2009	Liberia

Exhibit 12. Accrued and planned expenditures

[Financial data redacted for DEC submission]

[i] This is one of the proposed replacement indicators for "Percent of learners that demonstrate increased reading fluency (disaggregated by sex, grade, and urban/rural)" (listed in the RTI contract). Because the project is not tracking individual learners, it will be not be possible to report on the progress of individual students over time (comparing baseline to Year 1 to Year 2 results for any given student). The measurement of "reading fluency" includes both cwpm and comprehension, which although measured in the same section of the EGRA, have different discreet scores. For this reason (because there is no combined "score" for cwpm and comprehension), we divide the measure of oral reading fluency into two indicators: cwpm (indicator SO.A. and comprehension indicator SO.B).
[ii] Data could not be disaggregated by urban/rural type; this classification is being requested from the MOE for the midterm assessment.
[iii] The targets are the same for grades 2 and 3 for this indicator.
[iv] Data could not be disaggregated by urban/rural type; this classification is being requested from the MOE in time for the midterm assessment.
[v] The targets are the same for grades 2 and 3 for this indicator.
[vi] The Liberian academic year does not coincide with USAID's fiscal year, and since training for the second academic year will take place during this fiscal year, we will report on this training in the first quarter of fiscal 2009/10. At the same time, number of teachers and students in target schools was lower than anticipated, which had an impact on the number of trainees trained and resources distributed. Unused resources were used in the second academic year. Finally, extra copies of teacher manuals were given to Coaches just in case replacements are needed.
[vii] Same as previous.
[viii] Same as previous.
[ix] Same as previous.
[x] Same as previous.
[xi] Same as previous.
[xii] Same as previous.
[xiii] Same as previous.
[xiv] For indicators 3.A through 3.F, estimates are provided for both baseline and midterm assessments taking place in Year 1 of the project.
[xv] Data used to indicate the total number of learners enrolled in USG-supported primary schools is based on the official EMIS data. EGRA baseline data are still being cleaned and enrollment data collected (as well as missing data). These will be verified in June 2009 at the time of the midterm assessment.
[xvi] For our planning purposes and PMP development, we used official EMIS data to set the target. However, the actual enrollment in the schools was somewhat lower once we collected it through our baseline and assessment. We will include the actual figures with the understanding that we are reaching out to all students in EGRA schools even if actual enrollment is lower.
[xvii] For our planning purposes and PMP development, we used official EMIS data to set the target. However, the actual enrollment in the schools was somewhat lower once we collected it through our baseline and assessment. We will include the actual figures with the understanding that we are reaching out to all students in EGRA schools even if actual enrollment is lower.
[xviii] The Liberian academic year does not coincide with USAID's fiscal year, and since training for the second academic year took place during this fiscal year, we will anyway report on these figures. At the same time, number of teachers and students in target schools was lower than anticipated, which had an impact on the number of trainees trained and resources distributed. Unused resources were used in the second academic year. Finally, extra copies of teacher manuals were given to Coaches just in case replacements are needed.
[xix] Same as previous.
[xx] Same as previous.
[xxi] Same as previous.
[xxii] While EGRA Plus does not have a direct policy component, we hope our interventions will help lead the MOE to develop a policy or guidelines on reading instruction.