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Primary Math and Reading (PRIMR) Program: Kenya

Annual Report: October 2011 – September 2012

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Abbreviations

AKF	Aga Khan Foundation
APHRC	African Population and Health Research Center
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
COTR	Contracting Officer's Technical Representative
DEO	District Education Officer
DQASO	District Quality Assurance Officer
EdData II	Education Data for Decision Making (project)
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMACK	Education for Marginalized Children in Kenya (program)
ICT	information and communication technology
INSET	In-Service Education and Training
IRR	interrater reliability
JICA	Japan International Cooperation Agency
KEMRI	Kenya Medical Research Institute
KIE	Kenya Institute of Education
KISA	Kenya Independent Schools Association
KNEC	Kenya National Examinations Council
LTTP2	Liberia Teacher Training Program, Phase 2
M&E	monitoring and evaluation
MEO	Municipality Education Officer
MOE	Ministry of Education
M-PESA	(mobile phone money transfer service)
NGO	nongovernmental organization
PDE	Provincial Director of Education
PDIT	Program Development and Implementation Team
PMP	Program Monitoring Plan
PRIMR	Primary Math and Reading (Initiative)
PTE	Primary Teacher Education
PTTC	Primary Teacher Training College
QASO	Quality Assurance Officer
RTI	RTI International (trade name of Research Triangle Institute)
SAGA	Semi-Autonomous Government Agency
SMS	(text messaging service)
SSME	Snapshot of School Management Effectiveness
TAC	Teacher Advisory Centre
TSC	Teachers Service Commission
UNESCO	United Nations Educational, Cultural, and Scientific Organization

UNICEF United Nations Children’s Fund
USAID United States Agency for International Development
USIU United States International University

Introduction

The Primary Math and Reading (PRIMR) Initiative—a task order under USAID’s Education Data for Decision Making (EdData II) project—is uniquely focused on outcomes. The specific results that we expect to achieve are ambitious and are achievable only by the combined efforts of the Ministry of Education (MOE), teachers, and students. PRIMR plans to achieve the following outcomes:

- Grade-appropriate reading fluency and comprehension increased for children in Standards 1 and 2;
- Grade-appropriate mathematical abilities increased for children in Standards 1 and 2;
- Ministry of Education equipped and prepared to scale up successful Early Grade Reading and Mathematics (EGRA/EGMA) features/approaches.

The initiative started on August 15, 2011; this annual report focuses on activities from October 1, 2011, through September 30, 2012. First, we present PRIMR activities during this fiscal year by quarter, concluding with the activities of the most recent quarter, July–September 2012. At the end, we present progress toward PRIMR deliverables.

Activities for October–December 2011

The following activities represent the core tasks in which PRIMR engaged between October 1 and December 31, 2011.

- PRIMR submitted several **milestone deliverables** during this quarter, namely the first quarterly report (July–September 2011), the annual workplan, and the Program Monitoring Plan (PMP).
 - The July–September quarterly report was submitted on October 10 with acceptance on October 13
 - The Annual Workplan (August 2011–August 2012) was submitted on October 14 with acceptance on October 19
 - The Program Monitoring Plan was submitted on November 14. In December, PRIMR undertook slight revisions to the PMP based on helpful comments of December 15.
- During this quarter PRIMR and USAID managed to have several important meetings with the Ministry of Education and associated parastatals. These meetings and trainings are highlighted below.

PRIMR Launch

PRIMR was publicly launched on October 11, 2011, by the Permanent Secretary, Ministry of Education, Prof. James Ole Kiyiapi. The Permanent Secretary cited recent research showing that children were reading better in English than they were in mother tongue or Kiswahili, as measured by “correct words read per minute.” However, while children may read English better, they struggle to understand what they read, and their comprehension is significantly

higher in their mother tongue than it is in English. He said this leads to inefficient and ineffective efforts in the system, and that significant actions are necessary to improve reading abilities of approximately 3 million Kenyan children in both mother tongue and English in Standards 1 and 2.



USAID Representative Wendy Apt and Kenyan Ministry of Education Permanent Secretary Professor Ole Kiyapi discuss PRIMR



Members of the MOE, USAID/Kenya, and PRIMR discuss reading in Kenya

EGRA, EGMA, and SSME Adaptation

During October 10–13 at the Southern Sun hotel in Parklands, Nairobi, a technical team with particular emphasis on test and item construction met to discuss how to update the EGRA, EGMA, and Snapshot of School Management Effectiveness (SSME) tools for use in the PRIMR initiative. The Ministry of Education sent out a letter of invitation to key personnel in several directorates, the Kenya Institute of Education (KIE), and other stakeholders to this workshop.

The main activities were as follows.

- The workshop was introduced by MOE staff, who directed the participants to engage in the analysis of the existing tools with an eye toward improving the outcomes of those tools.
- Dr. Abel Mugenda, PRIMR’s Monitoring and Evaluation (M&E) Director, presented on the background of the EGRA, EGMA, and SSME tools, including the research design of PRIMR. The focus was on the complexity of the initiative and the focus on creating usable policy-relevant information for the Kenyan MOE.
- Isaac Cherotich presented on the research findings from previous EGRA and EGMA assessments, of which there have been many in Kenya. The findings consistently showed that the outcomes for children were lower than the MOE and the KIE had expected.
- Dr. Hellen Inyega presented the relationship between the EGRA and EGMA assessments and the expectations of the KIE syllabus. The purpose of this presentation was to show how closely the assessments matched the syllabus.
- Dr. Sylvia Linan-Thompson of RTI International then led the team through the specific EGRA tasks (such as naming letters, reading simple words, reading a short

text aloud), with an eye toward technical recommendations on which tasks, from among 10 or so standard options, should be used in the assessments for Kenya. This exercise was subject and language specific, so the organization of each language was introduced along with its implications for how the tasks would be more or less relevant for improving reading outcomes.

- Dr. Inyega and Sarah Koko presented the “randomizer tool,” which was a method to determine the most commonly occurring words, syllables, and letters in a particular language. The top items were designated for inclusion in the instrument; as a result, the words, syllables, and letters in the EGRA are directly related to the Kenyan context.
- The technical team discussed the various tasks and decided on the following, by language:
 - English
 - Letter sounds
 - Unfamiliar words
 - Passage reading (fluency)
 - Passage reading (comprehension)
 - Kiswahili
 - Letter sounds
 - Syllable fluency (if time allows)
 - Passage reading (fluency)
 - Passage reading (comprehension)
 - Listening comprehension
- Dr. Leanne Ketterlin Geller presented the background and theory underpinning the EGMA. In light of the overall low test results on the EGMA, as well as the task choices made by the technical team for the EGMA, the participants discussed the relevance of each task to the Kenyan context and to the syllabus.
- As had been done for the EGRA, the technical team for EGMA decided which of several tasks to use for the math assessment, settling on the following:
 - Rational counting
 - Number identification
 - Number discrimination
 - Missing number
 - Addition Level 1
 - Addition Level 2
 - Subtraction Level 1
 - Subtraction Level 2
 - Word Problems

- The technical team decided to use classroom observations for both reading and math, classroom inventories for reading and math classrooms, teacher interviews, and head teacher interviews to provide the school snapshot in the SSME study.
- The participants then pre-piloted the assessments in both formal and nonformal schools in Kibera. The purpose was to have the workshop participants understand how EGRA/EGMA/SSME implementation works, as well as to evaluate whether particular items in the assessment were working properly.
- The team debriefed after the Kibera pre-pilot and discussed many of the technical items related to the EGMA and EGRA. Individual items were updated, and decisions were made about what types of responses to accept for a variety of words and numbers.

Reading Scope and Sequence Workshop

During October 16–19 at Morendat Kenya Pipeline Training & Conference Center in Naivasha, a technical team met to discuss how to structure the development of learning materials for students in Kiswahili and English, as well as the accompanying instructional guides for teachers. The Ministry of Education sent out a letter of invitation to key personnel in several directorates, KIE, and other stakeholders to this workshop. Below we describe the main activities of the workshop.



Dr. Sylvia Linan-Thompson discussing the scope and sequence of Kiswahili and English.



Mrs. Grace Ngaca leading the team in investigating how to create efficient lesson plans.

- The workshop was opened by Mrs. Grace Ngaca (Education Secretary’s office), who directed the participants to focus on reading issues in Kenya.
- Dr. Benjamin Piper, PRIMR Chief of Party, shared information about the status of reading outcomes in Kenya, covering several years’ worth of research. The major theme was that the learning system in Kenya focuses on English, yet children fail to understand what they read.
- Dr. Inyega presented the background and design of the PRIMR initiative, with an emphasis on the suitability of the existing reading materials in the publishing market

for teaching children to read in Standards 1 and 2. The research shows that none of the existing materials can be used for early reading acquisition on their own.

- Dr. Linan-Thompson then led the team through a process of developing a scope and sequence for teaching Kiswahili letter sounds in a systematic and productive way, so that children can be successful with learning to read early, and gain fluency and comprehension easily.
- Dr. Linan-Thompson then presented several instructional routines (which the team decided should be called activities, rather than routines, to fit the Kenyan context better). These activities would be embedded in the lesson plans in order to have the students and the teachers learn the system and the structure of proper reading instruction.
- The team developed a scope and sequence for English in Standard 1, with particular emphasis on teaching letters that were familiar (consonants), followed by letters that were new or unfamiliar (vowels, some consonant clusters) to maximize what children had already learned in Kiswahili and could transfer to English.
- The team thought carefully about when the transition in English would happen from only listening/speaking to learning to read text. It was decided that children would need between 8 and 10 weeks of oral-only practice before moving to text. This does not mean that text cannot be used, but that the focus should be on listening and speaking.
- The participants discussed the relationship between the initiative's work and the KIE syllabus. It was agreed that the purpose of PRIMR is to develop materials that will better teach children how to read. PRIMR plans on making that purpose fit well into the KIE syllabus, and can ensure that the materials fit into the themes assigned by KIE. However, the primary purpose is to ensure that children can read, so where there are no overlaps with that purpose and the syllabus, given the potential changes in the syllabus, the materials will focus on ensuring reading outcomes.
- The team discussed ways to make the lesson plans fit closely into the Kenyan environment. It was agreed that language that would not be meaningful to teachers would be changed and the formats shifted to fit what teachers are used to, as much as possible. That said, the team agreed that it would be useful to show teachers that some things can be done differently to improve outcomes.
- The team began to develop a structured set of letters, syllables, phonemic awareness words, commonly used words, focus words, and controlled text stories that could be built into a structured and sequential set of materials for students. The expectation was that the technical team that continued after the workshop would continue that process and expand on what the technical team decided.
- The workshop resolved to have a joint group of MOE officials with heavy KIE participation review the outcomes of the material development workshops. It is the hope of PRIMR that MOE and KIE experts will be involved throughout the process. The technical team met at the RTI offices in Parklands from October 20 through the beginning of December. The outcome was a sequenced set of materials for teachers and students for Kiswahili and English.

- The workshop participants agreed with the sequence of Kiswahili letters chosen for Standard 1, the plan for using the RTI-developed structure for Standard 2, the sequence of English letters chosen for Standard 2, and the plan to continue to use the skills that children already have in Kiswahili to decide how to structure the English Standard 2 materials.

Math Scope and Sequence Workshop

On October 25–26, representatives from the Ministry of Education, the Kenya Institute of Education, and RTI International, as well as teachers, teacher trainers, and Teachers Advisory Centre (TAC) tutors, met to develop a scope and sequence for mathematics in Kenya. The venue was the Kenya Institute of Education. The Ministry of Education sent out a letter of invitation to key personnel in several directorates, KIE, and other stakeholders to this workshop.



Math technical team developing scope and sequence for Standard 1 and 2. Picture includes Dr. David Chard and Mrs. Margaret Murage on the right.

Listed below are the main activities of the workshop.

- The workshop was opened by Mrs. Margaret Murage, who advised the participants to focus on mathematics issues in Kenya.
- Dr. Mugenda presented the background of the PRIMR initiative, with an emphasis on its design and how it can answer questions of interest to the MOE.
- Dr. Piper presented on the findings from a 2009 EGMA study in Malindi, along with some illustrations from the October 2011 pre-pilot in Kibera. The children were revealed to do rather well in counting and shape discrimination, but to struggle with more complex math skills, in particular simple addition and subtraction and word problems.
- RTI mathematics consultant Dr. David Chard presented some research on the international experience with developing a carefully designed mathematics program. The findings suggested that a good program for Kenya should include the KIE syllabus, focus on vocabulary and reasoning, ensure that children have procedural fluency and flexibility, and ensure that students learn mathematical concepts and models.
- Participants agreed that the goal of instruction is to help develop number sense and fluidity with using and manipulating numbers, while at the same time ensuring fluency in basic operations.
- The participants agreed that the three core outputs of the program should be a scope and sequence matrix for Standards 1 and 2, a set of focused and targeted lesson plans designed in a way that would be familiar to Kenyan teachers, and a student workbook

that includes more practice and content than the typical mathematics book on the market, and is organized logically to take students through the syllabus efficiently.

- The participants agreed that the substantive strands, to be taught every day or every two days, and found within the Kenyan KIE syllabus are:
 - Counting
 - Magnitude and Comparison
 - Place Value and Composing/Decomposing
 - Number Patterns
 - Translation (representation)/Notation
 - Equivalence
 - Operations
 - Measurement (embedded)
 - Geometry (modestly emphasized, as children do quite well on this already)
- Participants also agreed that it is important for children to gain skills in Procedural Fluency, Adaptive Reasoning, Strategic Competence, and Conceptual Understanding. This means that, compared to current typical instruction, there will be more emphasis on the thinking behind how operations work, with a focus on ensuring that children have these skills.
- To facilitate this plan for daily teaching of skills, the team decided that the children should be provided with mathematics workbooks. These workbooks would provide practice for children—not just in procedures and facts, but more on the thinking necessary for children to learn math more effectively.
- The team worked very hard to develop a lesson plan template that would allow for the innovations of the Kenya PRIMR initiative (including the lesson cycle around the teacher-and-student modeling technique called “I do / We do / You do”), but that also would look like the lesson plans that teachers are supposed to develop. This lesson plan framework has been adapted for the PRIMR lesson plan process.
- Participants requested that the technical team bring back another round of materials to KIE and the MOE for their review, to ensure buy-in about the materials from the experts going forward.

Education Coordination Donors Group Meeting

On November 3, Dr. Piper and USAID presented the PRIMR approach and the new education strategy for USAID to the donor group. This meeting was to ensure that the donor group would stay focused on ways that they can collectively influence the education sector, even though many of the actors in the sector have had to cease major funding activities within the MOE due to the recent issues with procurement. The presentation by Dr. Piper was followed by questions and discussion about how a reading improvement program could be scaled up countrywide as well as how individual donors could be involved.

Lesson Plan Development – Reading

The core technical team involved in developing lesson plans for Kiswahili and English consisted of the PRIMR reading experts in the United States (Dr. Linan-Thompson, Jessica Mejia, Dr. Wendi Ralaingata) and in Nairobi (Dr. Inyega, Mr. Cherotich, Ms. Koko, Samuel Ogwang); SIL International reading experts Dr. Agatha van Ginkel and Leila Schroeder; Bible Translation and Literacy’s expert (eventually RTI International expert) Titus Kazungu, and additional reading experts Dr. Angelina Kioko (United States International University [USIU]) and David Mumo (Aga Khan Foundation’s Education for Marginalized Children in Kenya program [AKF-EMACK II]). Members of the Ministry of Education and KIE were invited to the workshops and attended when they could. The process took around two months and resulted in dozens of iterations of the scope and sequence and lesson plan documents. The final versions of these draft lesson plan documents were ready early in the next quarter. The documents took into account the findings from the scope and sequence workshops, and also involved regular consultations with KIE and with the PRIMR Program Development and Implementation Team (PDIT)¹ from October through December 2011. The result was a set of specific daily lesson plans for Kiswahili and English for 10 weeks per term, for a total of 150 lesson plans for each subject. These were piloted in the Phase 1 schools in 2012 (see exhibits in the sampling section below for phases and school locations), as well as being submitted to USAID and the MOE for review. In the end, we were confident that the lesson plans included the highest quality methods for improving reading outcomes in Kenya, and would serve as the basis for dramatically improved outcomes in reading in Kiswahili and English. By the end of December, the draft lesson plans for Kiswahili and English were slightly ahead of schedule to be submitted on time or before February 29.

Lesson Plan Development – Mathematics

A technical team consisting of RTI international math experts (Dr. Chard, Dr. Ketterlin Geller, Dr. Ralaingata) and a PRIMR math expert (Dr. Mugenda) worked closely with two other local math experts, Dr. Japheth Origa (University of Nairobi) and Philip Shitohi (PRIMR math consultant), to develop and flesh out the scope and sequence for the three terms of instruction. The team drew on inputs from additional experts who were working on the Liberia Teacher Training Program 2 (LTTP2), as well as materials developers contracted to LTTP2, but used the Kenya scope and sequence to prepare materials for both LTTP2 and PRIMR. The materials continued to be vetted by the Kenyan math experts on a continual basis. Given the complexity of the Kiswahili and English teacher training that took place in January, PRIMR began implementing the mathematics lesson plans later in Term 2. This allowed the teachers to become acclimated to the PRIMR methods without being overwhelmed by content.

Pupil Book Development – Reading and Mathematics

Under the principle of one page per lesson, and with an eye toward the KIE guidelines for book publishing, PRIMR began organizing student book materials for Kiswahili, English, and mathematics. For reading, each page contained the letters, syllables, words, and stories that

¹ This team includes members of all of the MOE directorates and SAGAs. It was created in October 2011 by Education Secretary Professor George Godia. More information about its membership and activities during this quarter appears in a later section of the report.

the teacher was to present on each individual day. For mathematics, each page presented activities in computation, number sense, operations, and word problems for each day. For both subjects, the page content and design was organized to maximize learning. In other words, each day was associated with one page, and the materials were clearly integrated with the teacher lesson plans.

In addition, a local illustrator produced carefully designed illustrations for each lesson plan. The principle that drove these illustrations was the connection to subject matter, but research has shown that if illustrations accompany a story, they should not explain the entirety of the story. These were produced in both black-and-white and color, so that if and when scale-up preparations are under way, a full-color option of the existing illustrations can be produced.

District Sensitization Meetings

In order to ascertain the interest of the relevant districts in the PRIMR initiative, PRIMR held regional meetings in Nairobi, Thika, and Nakuru to discuss the initiative and whether each district would be interested in participating. The eligible districts were chosen based on their existing TAC tutor² ratios; any district with a TAC tutor-to-school ratio of higher than 25:1 was not chosen. PRIMR was pleasantly surprised by the response of the districts. Although the PRIMR team had made clear the high levels of responsibility and activity required by each district in the initiative, every district with which we met requested that we work with their schools—and large numbers of their schools. This meant that the PRIMR team had a great deal of work to do to randomize the selected districts and zones. On a positive note, it also increased the representativeness of the study, as every eligible district was interested and consented to be included.

MOE Program Development and Implementation Team

The Education Secretary called a meeting of the newly formed Program Development and Implementation Team for December 13. This meeting was chaired by the Education Secretary, Professor George Godia, with Mrs. Murage serving as the Alternate Chair (selected during the meeting). In attendance were members of the PDIT, USAID staff, and RTI PRIMR project staff. Several items were agreed upon at this meeting:

- The Ministry of Education would provide letters for project schools for January, signed by the Education Secretary.
- The MOE preferred the first of three randomly generated options for the selection of schools, as it was the first option chosen by the randomizer.
- TAC tutors in PRIMR selected zones would need to be able to focus entirely on the PRIMR initiative and would sign a letter to that effect.
- Letters were written informing districts and TAC tutors of their responsibilities vis-à-vis PRIMR.
- Mrs. Murage was chosen as the Alternate Chair of the PDIT.
- PRIMR would only reimburse modest transport costs to TAC tutors.

² “Tutor” refers to Ministry of Education TAC tutors working in formal schools. “Coaches” refers to PRIMR project staff working in nonformal schools. Both perform the same function of classroom instructional support for teachers.

- The PDIT would meet at regular intervals to spur the initiative along to success.
- The proposed calendar was acceptable and PDIT members agreed to support and engage: Data collection January 9–27, TAC tutor/coach training January 3–13, PRIMR launch meetings January 16–20, teacher training January 23–27.

PRIMR Sensitization Meeting

Using leveraged funds from the William and Flora Hewlett Foundation, at a sensitization meeting on December 16, PRIMR presented the findings of previous Hewlett Foundation-funded work as well as the PRIMR research design and plan. This meeting was attended by several members of the PRIMR PDIT, USAID staff, and PRIMR project staff, as well as TAC tutors, teachers, head teachers, District Quality Assurance Officers (DQASOs), and District Education Officers (DEOs) or Municipality Education Officers (MEOs) from Nairobi City Council, Thika, and Nakuru county. In attendance were the key personnel from each of the districts that PRIMR would focus on in 2012 (see exhibits below). At the meeting, the representatives from the districts and municipalities received from the MOE a letter with the Education Secretary’s signature detailing the PRIMR initiative and the districts’ and municipalities’ roles in the activities. Because of their importance for PRIMR going forward, these responsibilities and the associated letter are included in *Figure 1*.

Figure 1. MOE description and letter about PRIMR

PRIMR Initiative Implementation Arrangements, December 16, 2011

Under the direction of the Ministry of Education, USAID/Kenya has begun a new education project called the **Primary Math and Reading (PRIMR)** Initiative in Kenya. The Primary Math and Reading program (PRIMR) will take place between 2011 and 2014 in urban and rural Kenyan primary schools. The PRIMR program is both an intervention focused on improving student achievement as well as a research study designed to provide policy-relevant information regarding the most effective methods for scaling up learning improvements at a national scale.

As a collaborative effort with the Ministry of Education and its key agencies the following road map has been agreed upon and scheduled to ensure timely completion of the project. Although your district and zone being selected for participation starting in the 2012 academic year, it dependent on

- Your participation and cooperation in providing regular administrative and professional support to the TAC Tutors, Head teachers and teachers in the initiative;
- Your ranking of the TAC tutor responsible for these schools provided to us in our meetings with you; and
- The verbal commitment you made regarding the assignment of the TAC tutor to PRIMR activities full time.

Here are the required arrangements for participation in the PRIMR initiative.

- 1) Specific TAC tutor provided with a **signed letter** assigning him or her to PRIMR activities full time, free from other responsibilities. Copies of this letter should be

- provided to the MOE and to the PRIMR initiative by 22nd December 2011;
- 2) If the TAC tutor is responsible for two zones, then they will be required to relinquish the other zones responsibility;
 - 3) Specific TAC tutor requested to report to the RTI offices **at 8:30 on Tuesday 3rd January** in Parklands, at an office called Mayfair Suites on the 2nd floor. The TAC tutor will be provided accommodations and food for training, which will take place from **3rd through 13th January 2012**;
 - 4) Please **convene** a meeting with the school heads from the selected schools for the PRIMR initiative between **16 and 20 January 2012**. Please inform us of the chosen dates so that PRIMR can also attend the meetings.
 - 5) All Standard 1 and 2 teachers and classrooms in these zones will **use the Kiswahili, English, Math** and other time available on the time table to implement the PRIMR initiative;
 - 6) A **central location for training** from schools in this zone should be made available, able to accommodate Standard 1 and 2 teachers and head teachers from the relevant schools, up to 60 participants, depending on the number of schools;
 - 7) Standard 1 and 2 teachers and head teachers will be made available for one **full week training from 23-27 January**, full time. This training will be given by the TAC tutor, and teachers and head teachers will be reimbursed modest transport costs and provided lunch allowance via M-PESA. Note that the amounts of reimbursement are modest;
 - 8) **TAC tutor will be required to visit each school in his/her zone at least twice every month**, and observe each Standard 1 and 2 teacher at least twice. Upon receipt of signed participation forms, the TAC tutor will individually receive very modest transport refund.
 - 9) TAC tutor should organize lists of Standard 1 and 2 teacher and head teacher names, enrollment in Standard 1 and 2, and **M-PESA information**;
 - 10) TAC tutor should help with **developing school report card** based on reading and math outcomes in January and February, according to training requirements;
 - 11) Please **appoint a point person in the district or city council** of education office for the PRIMR initiative to meet and discuss with PRIMR team, TAC tutor(s), head teachers and teachers as the program is being implemented.

PRIMR will work to do the following for all zones in the active Phases:

- Provide professional development for DEO, DQASO, zonal QASO, area education officers in charge of divisions during 2012
- Provide professional development for TAC tutors on an ongoing basis
- Provide professional development for Standard 1 and 2 teachers and head teachers on an ongoing basis
- Provide classroom reading materials for Standard 1 and 2 children
- Provide teacher lesson plans for Standard 1 and 2 teachers in Kiswahili, English (and later in math)

In addition to the large number of key meetings and workshops held and described above, PRIMR also worked on several other activities during this quarter. They included the following.

Nonformal School Clustering

In order to support the schools in nonformal settlements properly, PRIMR had to visit schools to determine their willingness to be involved, as well as to understand how eligible schools could most easily be clustered into manageable and logical geographic clusters. Given the lack of sophisticated school mapping exercises done in nonformal settlements (not to ignore the important work of the MOE in the school mapping exercise of 2007), and after investigating the mapping information available from 15 nongovernmental organizations (NGOs) working in education in nonformal settlements, it became clear that PRIMR would have to do its own mapping. We partnered heavily with the Kenya Independent Schools Association (KISA), an organization with many member schools in nonformal settlements, and found that while they had quite impressive lists of schools, these schools were not easily mapped or clustered.

Therefore, PRIMR decided to visit the 1,000 nonformal schools that were on either the KISA list or the RTI nonformal EGRA school list from June 2011 in order to do a thorough mapping of the entirety of Nairobi's nonformal schools. The result of this was to collect individual school information focused on enrollment, the age of the school, the head teacher, the owner, and then geographic information related to the nearby schools and the landmarks of the schools.

This was a critical exercise that resulted in randomly organized clusters of schools in groups of 10 and 15, which was essential for PRIMR to be able to randomly select schools. The PRIMR database of mapped schools will be an important addition to the information that the MOE has on nonformal settlement schools in Nairobi.



A set of data collectors mapping schools geographically after their site visits.

Sampling of Schools

As an EdData II research project, PRIMR has a higher level of responsibility for representativeness and careful research design than some other projects. As a result, PRIMR was very careful to think through the sampling issues so as to maximize the representativeness of the PRIMR findings. The sampling was done in two different ways for formal and nonformal schools, as explained below.

Formal Sampling

Within the target counties of Nairobi, Thika and Nakuru—which are the three counties that have municipalities in Kenya using Kiswahili as a primary language and that do not overlap with other USAID education activities in Kenya—we selected all eligible districts. As noted above, the districts had to be ones that had TAC tutors at a ratio of less than 25:1, and eligible zones were ranked by the self-determined quality of the TAC tutor. PRIMR staff visited each of these districts and municipalities to determine whether they were interested in PRIMR participation, given the arduous demands of the project related to TAC tutor assignment and other issues, delineated above. All districts remained interested. Therefore, we randomly assigned districts and zones to Phase 1, 2, or 3 of the initiative, in the manner shown in *Table 1*.

Table 1. PRIMR formal school sample, by phase and location

	Phase 1 – starting 2012	Phase 2 – starting 2013	Phase 3 – starting 2014
Target schools	70	70	50
Actual schools	73	64	51
Districts/Zones	5	5	3
County:	District/Zone:		
Nairobi	Nairobi West	Juja Rd	Viwanda
Nairobi	Dandora	Riruta	
Nakuru	Eastern	Central	Lare
Nakuru	Mauche	Kampi ya Moto	
Kiambu	Ithanga	Makadara	Thika West

Nonformal Sampling

The nonformal school sampling process was very detailed. As explained above, we began with a clustering of the schools into geographic groups. We randomly selected geographic areas to be clustered into groups of 10 or 15 schools. This occurred after we removed schools that were located in Mukuru (the focus of the EMACK II program) and Mathare (part of our pilot program), and removed schools with low enrollment or other indications that they would not likely be part of the education system over the long haul. We included 22 10:1 clusters and 15 15:1 clusters. These were located across Nairobi’s divisions, and we paid careful attention to the geographic location of clusters in various treatment groups given our worries about contamination. We randomly selected 12 10:1 and 8 15:1 clusters and then randomly assigned them into Phase 1, Phase 2, and Phase 3 groups, stratifying by geographic location. Our final sample is included in *Table 2*.

Table 2. PRIMR nonformal school sample, by phase and location

	Phase 1 – starting 2012	Phase 2 – starting 2013	Phase 3 – starting 2014
Target schools	60	120	50
Actual schools	60	120	50
Clusters	5	10	5
Division	Cluster		
Lang'ata Embakasi	Gatwekira Matopeni	Makina Soweto Kayole Posta Chokaa	Silanga Kariobangi
Westlands Kasarani	Gichagi Kariobangi North	Korogocho Babadogo Zimmerman	Waruku
Dagoretti	Congo	Riruta	Ngando

Hewlett Foundation Study Wrap-Up

The Monitoring Learning Outcomes study in Kenya, Uganda, Mali, and Senegal, funded by the Hewlett Foundation and led by RTI (Nov. 2008–Dec. 2011), had several activities in Kenya that were relevant for the PRIMR initiative. The final workshop presenting the sum total of the Hewlett-funded research included the sensitization activities discussed above. In addition, the Hewlett Foundation funded the nonformal settlements EGRA study of June and July 2011 that helped PRIMR to map the schools and to determine which schools were interested in participation. The Hewlett study funds also allowed for dissemination of findings in Nairobi's nonformal settlements and for support to Carolina for Kibera, an institution interested in literacy activities in the nonformal settlement areas. Finally, the Hewlett Foundation funded Well Told Story, a communications firm in Nairobi, to give a two-day training on communicating PRIMR's ideas to the MOE, and will continue to give some limited support in early 2012.

Changes in Key Personnel and Reallocation of Level of Effort Across Staff, October–December 2011

- In October, our subcontractor CfBT Education Trust hired Mr. Samuel Ogwang as the Education Officer. He works from the RTI office and supports the instructional coaches working in the nonformal settlements.

- In December, RTI interviewed several candidates for Education Research Assistant and Deputy Chief of Party positions. PRIMR onboarded both positions in early 2012.

Difficulties Encountered, October–December 2011

Although overall the project's progress was quite positive, some of the activities did present challenges.

- The process of **organizing the nonformal schools** was quite complex and time consuming. We had hoped that the MOE's school mapping documents would include the nonformal schools, but the exercise was not current and did not represent the entirety of the nonformal school population. We also worked closely to involve other NGOs working in nonformal settings to determine what mapping information they had. It appeared that mapping exercises had been undertaken in Kibera and Mathare and were in progress in a variety of other locations. However, due to the various purposes of these maps, they did not always provide the depth of information that PRIMR needed to determine which schools were the most likely to survive for the three years of PRIMR. We also worked closely with KISA to see how their lists could be of help, but they did not include enrollment information nor was it organized geographically; rather, it was organized by Nairobi's divisions. The division markers often cut through individual nonformal communities, so this was also less than ideal. PRIMR determined that because of our commitment to do this activity at the highest level of quality, the only solution was to do physical mapping of the schools using local members of the community. This required that we visit more than 1,000 nonformal schools and cluster schools after visiting individual locations.
- **Selecting pilot schools** turned out to be quite complicated as well. These pilot schools were to be the location of our first attempts to implement the PRIMR curriculum, but it was difficult to settle on the schools with which to work. PRIMR proposed to work with schools supported by Dignitas Project in Mathare. Our understanding was that EMACK was stepping out of Mathare and that Dignitas would be a welcome partner for several reasons, one essential: Dignitas would have the capacity to expand the reach of the PRIMR initiative after the pilot year, without having to invest USAID money into this area beyond the pilot. Due to very logical concerns at EMACK, however, our ability to pilot in these schools remained in question.
- After the random sampling of the government schools, we learned that we were facing a challenge due to the **large numbers of children in Phase 1 PRIMR schools**. Our estimates of average enrollment in Standard 1 and 2 based on 2010 enrollment led us to believe that our Year 1 total number of students affected would be around 12,000. However, there were closer to 14,000 Standard 1 and 2 children in the 126 schools supported by PRIMR in Year 1. This had unexpected budgetary implications, as PRIMR was planning to provide materials at a 1:1 ratio.
- PRIMR appreciated the strong interest of the MOE in the PRIMR initiative, including the Permanent Secretary and Education Secretary. To that end, the Program Development and Implementation Team mentioned above was created and members informed in early November. Unfortunately, **it took nearly six weeks for the initial**

meeting with the PDIT to occur, slowing down some of the momentum. Fortunately, we were able to move swiftly after that meeting with Education Secretary.

Activities for January–March 2012

The following activities represent the core tasks in which PRIMR was engaged between January and March 2012.

- During this quarter PRIMR submitted the following **milestones deliverables**:
 - The October–December quarterly report was submitted on January 9 with acceptance on January 10
 - The updated final version of the Project Monitoring Plan was submitted on February 15 with acceptance on February 16
 - The English and Kiswahili Lesson Plans were submitted on March 28 with acceptance on March 29
- During this quarter PRIMR and USAID managed to have several important meetings and workshops with the Ministry of Education and associated parastatals. These meetings and trainings are highlighted below.

TAC Tutor Training

Held January 3–13 in Nairobi, this training imparted to RTI/CfBT Education Trust instructional coaches and TAC tutors the skills they need to deliver teacher training and taught them specifically how to manage and support the teachers under their purview. This training was supported by international reading experts Dr. Margaret Dubeck, Jessica Mejia, Dr. Agatha Van Ginkel, as well as project staff and local consultants, which included Dr. Hellen Inyega, Dr. Angelina Kioko, and Titus Kazungu. The training took place in PRIMR's office and was also attend by several MOE staff. The first week of training focused on teaching coaches and tutors the foundations of reading theory and instruction as well as how to implement the lessons. The second week of training was split between learning how to support teachers and practicing lesson implementation. The idea was to provide the training to the tutors and coaches in the same manner that they would then give to the teachers. The picture below shows two coaches and one tutor at the training closing ceremony, along with Dr. Piper.



Baseline Assessment

Supported by signed letters from the MOE, research approval from the National Council of Science and Technology, and ethical approval from Kenya Medical Research Institute (KEMRI), the PRIMR team assessed children in 230 schools across PRIMR's three phased sample in Nairobi, Thika, Nakuru, and Nairobi's nonformal settlements, in Kiswahili, English, and math. Using EdData II Task Order 7 funds,³ PRIMR also implemented the SSME tool in all 230 schools. This unique collaboration between PRIMR and the Task Order 7 funds for SSME resulted in two extremely rich studies that went beyond what had been done in any other country that PRIMR was aware of. This baseline assessment also included a subsample of schools for the longitudinal study to be tracked over time. Both PRIMR and SSME Task Order 7 data collectors were trained by PRIMR project staff January 3 to 7. Team supervisors were chosen based on their performance during training. These supervisors were separately trained on how to administer all SSME instruments, in particular the classroom observations for both reading and math instruction; the classroom inventories for reading and math instruction, the teacher interviews for Kiswahili, English and math; and the head teacher interviews, as well as the learner background questionnaires.

The data were collected between January 9 and 27, with data entry from January 30 through February 23. Data entry was undertaken with data entry systems based on previous versions in the Hewlett Foundation study and from other SSME projects in other countries. Data were cleaned and Stata databases prepared by March 9, with analysis and report writing through the end of March 2012 and into the next quarter, when the findings were shared. The picture that follows shows a child taking the EGMA assessment, particularly the addition task, in a nonformal school in Nairobi.

³ Task Order 7, Learning Outcomes Research and Assessment-Related Projects, was designed to build on the measurement instruments developed and piloted under other EdData II task orders.



Tangerine Pilot

During the baseline data collection, a small pilot of RTI's Tangerine software was conducted. This software, implemented on a tablet (specifically the Kindle Fire) allows for the electronic collection of data. While the Kenyan PRIMR case was slightly more complicated than typical EGRA assessments, we decided it would be a good opportunity to ascertain the effectiveness of the program to handle Kiswahili, English, and math assessments, as well as the learner background questionnaire. Training of two teams of experienced data collectors was undertaken by Sarah Pouzevara, a long-term information and communication technology (ICT) consultant to RTI, on January 13. The training focused on how to administer EGRA using the hardware and software. Data collection teams then visited 10 schools where they administered EGRA to 200 learners in English, Kiswahili, and math. Results of the pilot showed some data loss due to software issues in Tangerine, but also that the Tangerine tool was easier to manage than the paper versions, and that children were not distracted by the technology in the classrooms. The next picture was taken during the training for the Tangerine pilot.



Launch Meetings

After the coach and tutor training, the tutors and coaches visited their schools and communities to introduce the program for head teachers and prepare them for the activities that would take place during the year. During this time, tutors and coaches helped head teachers to organize launch meetings for PRIMR and to get ready for the critical teacher training program the following week, January 23–27. The following pictures are from the launch ceremony in Gatwekira cluster in Kibera Nonformal settlement, where the PRIMR team was greeted with a warm reception from the community.



Teacher Training

After the coaches and tutors were trained (by January 13), they were ready to make initial preparations for the January 23–27 training. Each coach or tutor was responsible for choosing an acceptable venue for the training and gathering all Standard 1 and 2 teachers from their assigned schools for the professional development. Professional development took place over the course of 5 days and focused on the implementation of the lesson plans, mimicking the training that was given to coaches and tutors earlier in January. The coaches and tutors were supported by project staff and MOE training specialists throughout the 5 days.

This professional development for teachers used materials developed by the PRIMR team, and on which the coaches/tutors were trained. The training was interactive and ensured the teachers had a great deal of practice with the material. Each teacher left the training with several reading intervention materials.

Learner Book Development – Reading and Mathematics

PRIMR continued and finalized the development of learner book materials for Kiswahili and English. For reading, each page contained the letters, syllables, words, and stories that the teacher was to present on each individual day. As indicated in the summary for the October–December quarter, a local artist was enlisted to produce the illustrations for stories in both English and Kiswahili. Illustrations were also produced for the Term 1 English oral language lessons. They depicted the vocabulary being taught, to help learners associate meaning with new words.

The books were formatted by RTI graphic design and editing staff using InDesign software, and these printer-ready files were used to print the books in Kenya. PRIMR undertook a formal procurement process with 10 printers bidding, with the contract awarded to the printer providing the best services at the lowest cost.

Sensitization Meetings

In February, after the teacher training, sensitization meetings were held for all zones and clusters engaged in the initiative. The purpose of the meetings was twofold. First, they prepared the community for the support they would be asked to give teachers and learners focusing on reading and creating a reading culture. Second, the meetings generated some community knowledge and expectations for their children’s learning in the languages of interest, so that there would be more incentive for teachers to focus on learning to read. The next set of pictures was taken at the Nakuru Eastern Education Day, which focused heavily on sensitizing the community and parents about the PRIMR initiative, and where pupils were given prizes for performing well in the zonal reading contests.



Cluster Reflection Meetings

During February and March, all clusters and zones held monthly cluster meetings for teachers and head teachers. These meetings were opportunities for the teachers and head teachers to share their experiences under the PRIMR Initiative, and to encourage each other in the work of improving reading and math outcomes in Kenya. These meetings continued to be held on a monthly basis in each cluster and zone.

Reading Contests

During the first quarter, with some spillover in a few zones into the beginning of April, all clusters and zones held reading contests. These reading contests were organized to engage the community around the importance of reading, and encourage children to improve their outcomes as much as they could. Each school was invited to bring its best readers in both Standards 1 and 2, who would then compete at the zonal and cluster level. Some clusters and zones held semifinals at the nexus of a handful of schools in order to make the finals more easily manageable. PRIMR provided technical support in the development of the tools used to evaluate the children, in combination with teachers and head teachers in the PRIMR schools. The majority of funds required for the reading contests were undertaken by the community, rather than PRIMR.

Supervision and Feedback

Throughout the quarter, and continuing for the life of PRIMR, each coach and tutor spent significant time observing lessons and providing feedback to teachers. This process focused on giving the teachers the ongoing feedback needed to help them to change their practices in the classroom. The theory of change that this depends on is that teachers are adult learners who require more sophisticated learning mechanisms, and that the tutor-to-teacher relationship, focused on instruction, is necessary for teachers to conceptualize how to change behavior in the classroom. During the month of February, all teachers in all zones were observed at least once, with nearly all teachers in the nonformal schools observed twice. Each visit was punctuated by a lesson feedback form discussion, where the tutor and the teacher would look at the feedback given by the tutor and discuss its impact on the instruction the

next time. PRIMR is of the opinion that the innovation that is most likely to have significant impacts on student outcomes is the ongoing feedback to teachers.

Scale-Up of Planning Sessions

Intermediate Result 3 of the PRIMR conceptual framework puts supporting the MOE in its scale-up plans and strategies at the forefront of what PRIMR will focus on. To that end, PRIMR was a participant in the first part of the MOE-USAID workshop on early grade reading in Mombasa, February 26–29. At that meeting, PRIMR team members, including TAC tutors, instructional coaches, and technical support team members, presented on the PRIMR intervention so far, as well as the evidence regarding reading intervention scale-up at the international level. PRIMR was not involved in the planning meetings with USAID that occurred after our departure.

End-of-Term Exam Development

Given the trepidation that some teachers in PRIMR-supported schools felt about the term examination that learners would undertake and how and whether PRIMR had prepared them for it, PRIMR team members agreed to work with DEOs, MEOs, teachers, and head teachers by jointly developing an end-of-Term-1 examination. This exam was used to supplant the examination typically used in the April exams, and was developed to reflect what the children in PRIMR-supported schools had been taught in the first quarter.

Stakeholders Meeting, Nakuru

During March 6–8 in Nakuru, the PRIMR team met with PRIMR stakeholders across the provinces and counties. With 13 PDIT members; Provincial Directors of Education (PDEs) from Nairobi, Rift Valley, Central, and Nyanza; and the DEOs/MEOs of all of the PRIMR districts, along with their District Quality Assurance Officers (DQASOs); and with other stakeholders, including head teachers, teachers, and Primary Teacher Training Colleges (PTTCs), the project team discussed the development and progress of the PRIMR program in their individual locations. The stakeholders meeting was very encouraging in terms of how receptive the districts and municipalities were, and how confident they were that it was helping their children learn how to read and do math better. The PRIMR team also was able to capitalize on the involvement of the Program Development and Implementation Team to better actualize the process of how PRIMR and the PDIT can support each other, with the goal of the PDIT and the MOE taking over the task completely.

PDIT Meetings

In addition to the Nakuru meeting above, PRIMR and the MOE had several meetings with the PDIT. The MOE was involved in the baseline training for PRIMR data collectors, supervision of data collectors in three locations (Nairobi, Thika, Nakuru), training of coaches/tutors in the Term 1 training, supervision of the teacher training in the field, the USAID reading retreat in Mombasa, the sensitization workshop in Nakuru in March, and in various other meetings in Jogoo House and RTI's offices. We were thankful for the heavy engagement of the MOE in this entire process.

Policy Study

In November and early December 2011, the first policy study began. This study was to investigate the context within the MOE for improving reading outcomes at scale, and was to provide the basis for policy workshops occurring in mid-2012. The PRIMR policy specialist and Dr. Bunyi, the education policy consultant, took the primary lead in developing the analysis and writing the report, as well as incorporating the views of the MOE and presenting ways for the MOE to reorient toward instructional improvement in the area of reading. Findings from the policy study were collected and analyzed and were reported after consultations with the Ministry of Education. Early feedback focused on the lack of clarity among some members of the MOE about how a scale-up strategy would be undertaken. On a positive note, however, there was general agreement about the importance of reading improvements in the lower levels in Kenya.

Implement SMS Support Service

During the first calendar quarter of 2012, PRIMR purchased a laptop dedicated to an SMS support service. Using Frontline SMS, a free software, and the low per SMS prices on Safaricom, we created a program that will provide continual and pedagogical SMS feedback to teachers throughout the life of PRIMR. Starting in March 2012, all PRIMR teachers and head teachers received a focused SMS at regular intervals and incentives were built in, in order to encourage the teachers to respond to the program with questions and concerns.

Delivery of Books and Classroom Materials

The lesson plans, learner books, and classroom materials were finalized in February 2012, with Kiswahili and English materials supplied at the school level at a 1:1 ratio for every child enrolled in Standards 1 and 2. They were distributed to schools, based on the agreement with KIE regarding the use of the materials for research purposes only (and a stamp on each book to that effect). In-depth training on the use of the learner books was being planned for the upcoming quarter.

Changes in Key Personnel and Reallocation of Level of Effort Across Staff, January–March 2012

Salome Ong'ele was hired as the Deputy Chief of Party effective February 1. She immediately became a key part of the team, essential to our productivity going forward. PRIMR also hired Titus Kazungu, who was a valuable member of our material development team in 2011, as a full-time Education Research Assistant. Our Education Specialist Dr. Hellen Inyega had to resign her position effective February 24 due to personal reasons. She was later hired as a reading consultant for the project, which gave some continuity in the position going forward.

Difficulties Encountered, January–March 2012

The PRIMR team was requested to remove the names of the Kenya Institute of Education participants in the scope and sequence workshops in September from the learner books used

in schools. This presented a logistical challenge as we were unaware that their names would cause a problem, but we managed to do that task. We also stamped each of the learner books to indicate that they were research materials and a zero draft, rather than truly reviewed materials ready for the KIE evaluation process.

The complexity of the scale-up process proved daunting. This was to be expected given our work in other countries, but the unique thing about the Kenyan case was the relative disconnect between the senior members of the MOE and the group one level down at the Deputy Director and Senior Expert level. The senior members of the MOE (Permanent Secretary, Education Secretary, others) were convinced about the need to improve reading outcomes and to do what was necessary to make that happen successfully. However, there remained a wide range of views and understanding of the appropriate mode of operation within the MOE at the levels below the Directors, which caused PRIMR to be concerned about a too rapid scale-up of a reading intervention. Without MOE buy-in and ownership, the program would be unlikely to succeed in the critical area of sustainability, and there did not appear to be consensus about what the MOE's role would be, or on the technical direction of the program. These were seen to be surmountable issues, however, as the key objective of having agreement about the need for reading improvement had been accomplished. The coalescing around a strategy often happens with time and directed by leadership within the MOE. However, the project team was certain that this process should happen before any USAID intervention rolled out, to maximize the effectiveness of that intervention.

Activities for April–June 2012

The following activities represent the core tasks in which PRIMR was engaged from April to June 2012. During this quarter PRIMR submitted the following **milestone deliverables**:

- The January–March quarterly report was submitted on April 10, with acceptance on April 11
- The draft lesson plans were submitted on April 30, with acceptance on May 10.

Meetings and workshops with the Ministry of Education and associated SAGAs are highlighted below.

Term 2 Tutor and Coach Training

PRIMR worked with the MOE and the PDIT to lead a second round of training for the tutors and coaches, April 11–14. During this training, PRIMR team members taught the tutors and coaches more specific knowledge and skills on the five components of reading, the use of feedback to improve reading outcomes, and the integration of the Kiswahili and English lessons. The goal of the training was to impart to the tutors and coaches the same skills that they then provided to their teachers in trainings from end of April to beginning of May. Several PDIT members were engaged, with Tom Oketch and Charles Kanja from the Ministry of Education taking an active role in the delivery of training.

Term 2 Teacher Training

During April 16–May 10, PRIMR zones and clusters underwent a three-day training on implementing PRIMR lessons in Kiswahili and English. The purpose of the training was to

ensure that teachers were implementing the initiative fully, and to provide teachers with more support in how to use the learner books that were delivered to every school in the first quarter of 2012. The training also discussed technical areas related to how the Kiswahili and English lessons should interact, and created the skills for teachers so that they could focus on learner improvement. Findings from our EGRA/EGMA/SSME baseline study showed that children remained far from having sufficient levels of fluency and comprehension for Kenyan standards. These findings were shared with the teacher groups. PDIT members were involved in the training sessions, particularly in the Nairobi West zone. The majority of the training took place during the last week of April for the nonformal schools and the first week of May for formal schools. This picture shows one of the PRIMR-trained teachers using a phonemic awareness method for instruction.



Coach Pack Delivery and Training

PRIMR trained the coaches and tutors on the utilization of technology to enhance the support that the coaches and tutors provide for teachers. During June and again on July 4, the coaches and tutors were trained on how to use a coach technology pack, including the following items:

- Digital video camera
- Digital still camera
- External hard drive
- Tripod

- Pico projector suitable for nonformal environments
- Backpack

Tutors and coaches were mentored on how to use these cameras to provide immediate feedback to teachers on how they could improve their teaching, as well as showing ideal instruction in Kenyan classrooms for “feed forward” methods. Feed forward is a strategy for using video to push high-quality instructional methods into teachers’ hands.

Baseline Report Writing

Much of the April to June period was spent in writing and revising the PRIMR baseline report. This work was primarily done by Dr. Abel and Dr. Piper. The report was supplemented by findings briefs on reading and math that were short enough to allow policy makers to deal with the main policy-relevant questions. During April 16–18, PRIMR carried out a writing exercise at the RTI offices with representation from the MOE and the SAGAs. The draft report was shared with the members of the Program Development and Implementation Team on May 18 to ascertain their comments on the report. The comments received were incorporated into the revised version of the report. These comments and discussions allow the report to be considered jointly created.

In addition to the basic report, Joe DeStefano worked on policy briefs for reading and mathematics that look at the results from the baseline and present policy discussions regarding the SSME factors that impact outcomes. These reports, three pages long, were used in several high-level meetings with key members of the MOE.

Baseline Results Dissemination

During the second quarter, PRIMR disseminated the results of the baseline assessment to several groups of MOE and SAGA professionals. This included USAID education officers, the Permanent Secretary, the Education Secretary, the Secretary of the Teachers’ Service Commission, senior officials at the KIE, the Chief Executive Officer (CEO) of the Kenya National Examinations Council (KNEC), the Program Development and Implementation Team, and representatives from each district and municipality where PRIMR operates. These findings dissemination workshops and meetings were focused on the central idea that there was a dramatic problem in the area of reading, and that PRIMR was trying to do something about it.

Policy Dialogue

Mr. DeStefano was in Nairobi June 11–15 for high-level policy dialogue meetings with the MOE and the SAGAs, in order to better explain the relationships between SSME and outcomes, as well as to discuss how the SSME findings can be used as part of the national reform effort. The RTI team read the current versions of the education bill and the bills relevant to the other organizations in the education sector so that we could share some ideas on how they can organize their structures to maximize learning.

Standard 1 and 2 Math Lesson Plan Finalization

PRIMR spent most of the April–June 2012 quarter developing lesson plans for math lessons. These lessons were revised and reviewed, in preparation for distribution during the July–

September time frame. The associated student books also were to be ready early in the next quarter, with training and dissemination of these materials during Term 2 in the Kenyan school year. The Standard 2 materials were prepared between July and November 2012.

Cluster Reflection Meetings

During the months of April through June, all clusters and zones held monthly cluster meetings for teachers and head teachers. These meetings provided teachers the opportunity to reflect on their experiences implementing PRIMR. The purpose was to encourage each other in the work of improving reading and math outcomes in Kenya. These meetings were to continue to be held on a monthly basis in each cluster and zone, through the end of the second term and into the third term.

Reading Contests

The clusters and zones each had reading contests for the second term. These reading contests were developed and organized to engage the community about the importance of reading, and the improvement in reading outcomes that can come from focused effort and attention to reading outcomes. Similar to Term 1, each school was invited to bring their best readers in both Standard 1 and 2, who would then compete at the zonal and cluster level. Some clusters and zones held semifinals at the nexus of a handful of schools in order to make the finals more easily manageable. Again, the majority of funds required for the reading contests were raised by the community, rather than coming from PRIMR. In some clusters and zones, teachers were told to bring different pupils to each gathering so as to encourage the community that any child can be seen as a strong reader if schools and communities focus on this particular skill.

Supervision and Feedback

During March, almost all teachers in all zones were observed at least once, with nearly all teachers in the nonformal schools observed twice. Each visit was punctuated by a discussion around a lesson feedback form, during which the tutor and the teacher would look at the feedback given by the tutor and discuss the impact it should have on the instruction the next time.

End-of-Term Exam Development

As noted above, as part of PRIMR's efforts to use data to improve the quality of instruction, the PRIMR team contributed to the development of end-of-term examinations that would examine whether pupils had acquired the skills outlined in the KIE syllabus and reflected in the PRIMR lesson plans and books. The experience of Term 1 exam development provided PRIMR and PRIMR-supported schools with feedback as to how to improve the design of the exams, as well as to ensure that the examination process is sustainable. As a result, PRIMR core team members worked with the coaches and tutors to develop examinations that could be organized and supported by schools, but reflect the key ideas within PRIMR.

Nonformal Directors Meeting

On June 17, PRIMR invited the directors from the nonformal settings to discuss activities under PRIMR and how the strong collaboration in the initiative could expand. With 77 participants, nearly every school was represented either by the head teacher or by the director or owner of the school. The meeting was attended by Dr. Teresiah Gathenya, the USAID Contracting Officer's Technical Representative (COTR) for PRIMR, who encouraged the head teachers and directors that their efforts to improve learning outcomes from children in their schools were making a very valuable contribution to the nation. Mr. Kataka and Mr. Nzoya from the Ministry of Education were also in attendance and explained to the participants some of the reforms within the Ministry and how the process of registering the schools is likely to become easier in the future.

Meeting of Quality Assurance and Standards Officers and Education Officers

The PRIMR team met with a key implementation group during a workshop in Nakuru May 22–25. The meeting participants included the Municipal Education Officers from several zones plus Thika and Nakuru, as well as the quality assurance and standards officers of the municipalities and districts working with PRIMR. These participants were joined by a majority of the Program Development and Implementation Team members. During this meeting, the baseline findings were shared, as well as implications, and visits were made to three different PRIMR-implementing schools. The 30 participants were able to see how the initiative was working, and discuss the ways that the classrooms within the municipalities and districts were being supported. Our key purpose was to encourage the education officers to look carefully at what was happening in PRIMR classrooms and to develop skills in observational techniques. The meeting was successful, and participants left convinced that the PRIMR materials and lessons can improve the quality of teaching and learning in Kenyan classrooms.

PDIT Meetings

In addition to the findings meeting on the baseline study, PRIMR and the MOE held several meetings with the PDIT. The PDIT members were involved at every stage in sharing the workplan and next steps for the PRIMR Initiative, and were engaged in several meetings throughout the quarter, including the baseline interpretation workshop, the baseline writing workshop, the second-term tutor and coach training, the second-term teacher training, the nonformal directors meeting, several focused meetings sharing the baseline findings, and the training for quality assurance and standards officers explained above.

Policy Study

During April–June 2012, the policy study team was hard at work interviewing participants and preparing a draft policy study document. The purpose of the study was to collect and share with the MOE the thoughts of the Ministry's own staff about how to implement a nationwide reading program. Interviews were undertaken with the majority of the directors of the Ministry of Education directorates and associated SAGAs. Dr. Grace Bunyi, PRIMR Policy Consultant; and Isaac Cherotich, PRIMR Policy Specialist, submitted their first draft of the policy report on May 25. The draft report was to be ready for presenting to the Ministry of Education in July, after which the revised report would be shared with USAID.

Implement SMS Support Service

During the second quarter of 2012, PRIMR sent out its first SMSs to PRIMR teachers, encouraging them in their work. These SMSs were sent via Frontline SMS, a free software that can manage SMS distribution to large groups of numbers. The SMS prices on Safaricom are extremely inexpensive. The SMSs will continue to be sent regularly and relate to the key activities that PRIMR teachers are undertaking.

Changes in Key Personnel and Reallocation of Level of Effort Across Staff, April–June 2012

PRIMR hired Richard Mwangi as the Finance Manager for the initiative. His effective start date was May 7.

Difficulties Encountered, April–June 2012

Given the importance of the PRIMR baseline study, and the concerning findings in the study related to the outcomes of students in early levels, the PRIMR team (along with USAID/Kenya) worked very hard to have a specific session on the PRIMR baseline with the directors of the departments in the MOE. This proved impossible, although other meetings were scheduled to share the findings with the directors on an individual basis.

Activities for July–September 2012

- PRIMR submitted several **milestone deliverables** during the July–September quarter.
 - The Second Term Training report was submitted on September 18, with acceptance on October 4.
 - PRIMR requested to include the July–September quarterly report within this annual report. This request was submitted on September 18, and accepted the same day.
 - The policy study report was submitted on August 23, with acceptance on August 28.
 - The baseline findings workshop report was submitted on August 23, with acceptance on September 4.
 - The April–June 2012 quarterly report was submitted on July 10, with acceptance on July 13.

Other activities that PRIMR carried out during this quarter are delineated in detail in the sections that follow.

Kenya National Examinations Council Benchmark Setting

On August 14, the PRIMR team presented the results of the PRIMR baseline report to the Kenya National Examinations Council Steering Committee with an eye toward agreeing on appropriate benchmarks for student learning for fluency and comprehension in Kenya. Participants at the workshop are listed in *Table 3*.

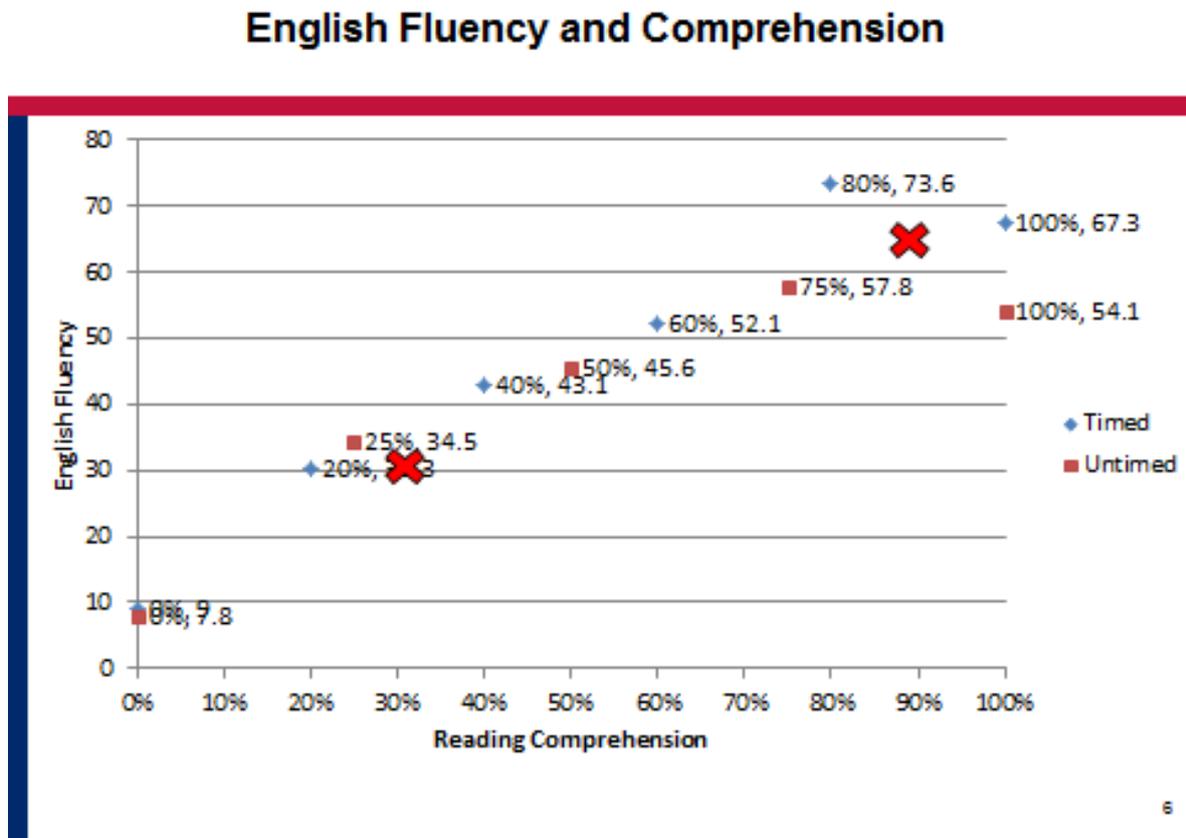
Table 3. Participants in baseline results workshop

Name	Organization
Abel Mugenda	RTI PRIMR
Gregory Naulikha	Canadian International Development Agency (CIDA)
T. Wambui Gathenya	USAID
Helen Craig	World Bank
Jane Mbagi-Mutua	UNICEF
Alice Muthuni Ng'ang'a	Strathmore University
S. Venkatraman	UNESCO
Evangeline Njoke	Kenya National Commission for UNESCO
Moses Ngware	APHRC
Jane Theuri	MOE, PRIMR-PDIT
Richard Wambua	KNEC

Name	Organization
Joseph M. Kivilu	KNEC
Woki Wachira	KNEC
Benjamin Piper	RTI
Salome Ong'ele	RTI
James Kairu	MOE
Samuel K Kibe	Japan International Cooperation Agency (JICA)
Emily Kamithi	MOE
Leah Rotich	MOE
Cyril Oyuga	MOE
Isaac Cherotich	RTI-PRIMR
Mohammed Mwinyipembe	MOE

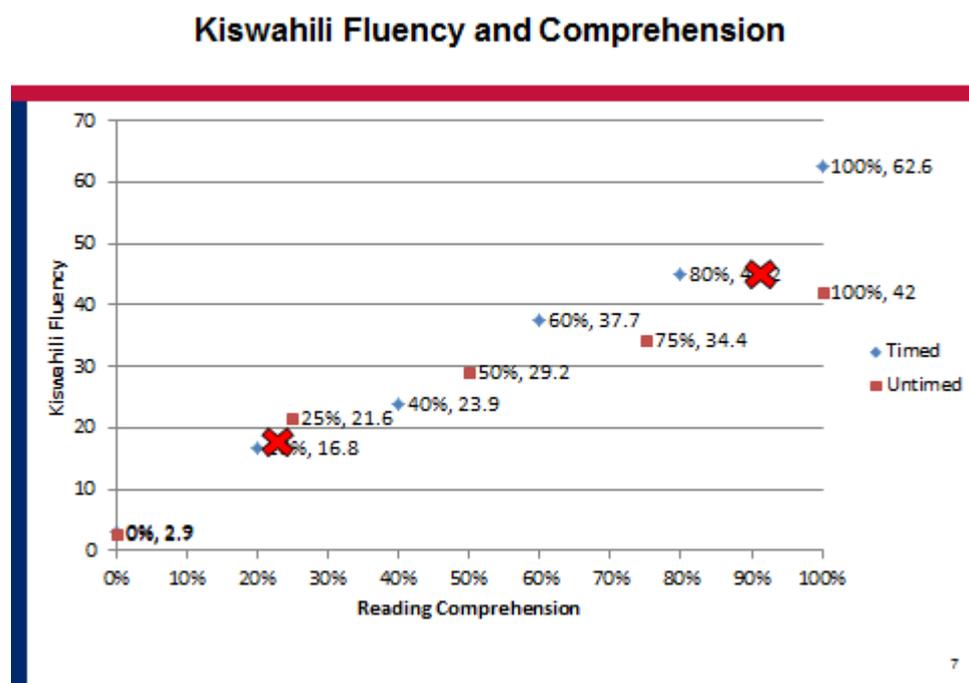
PRIMR was able to make three presentations to the Steering Committee: one by Dr. Mugenda on the PRIMR research design, another by Dr. Piper on the baseline findings and recommendations, and the last by Dr. Piper on benchmark setting. The benchmark-setting presentation provided us an opportunity to show the levels of student learning quite precisely. *Figure 2* shows one of the charts presented to the Steering Committee looking at oral reading fluency scores on the y axis and reading comprehension scores on the x axis. The scatterplot had two colors, red for the untimed assessment (40 words, 180 seconds) and blue for the timed assessment (60 words, 60 seconds). The participants were asked to determine where to put the “X’s” to estimate what levels of fluency pupils needed for 80% and 100% comprehension (fluent readers). They were also asked to determine where to put the X’s to show what levels of fluency pupils needed to have at least 20% comprehension (emergent readers). Figure 2 shows what options they chose.

Figure 2. Fluency and comprehension rates for English benchmarks, selected using PRIMR baseline data



Participants discussed the Kiswahili data as well, with the same assumptions and research design. While the students’ performance outcomes were much different in Kiswahili, **Figure 3** shows the relationship between fluency and comprehension for timed and untimed reading.

Figure 3. Fluency and comprehension rates for Kiswahili benchmarks, selected using PRIMR baseline data



The participants deliberated on this information and other data presented in the workshop. They agreed unanimously to select the following benchmarks of fluency (as it relates to comprehension) for Kiswahili and English, as presented in *Table 4*.

Table 4. Fluency benchmarks for Kiswahili and English

Language	Emergent Reader	Fluent Reader
Kiswahili	17 wpm	45 wpm
English	30 wpm	65 wpm

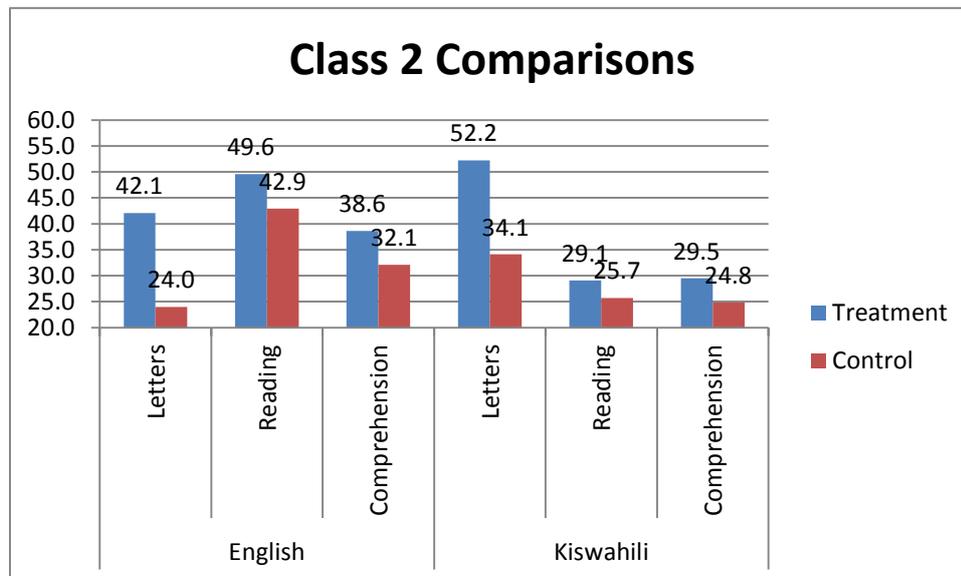
The PRIMR team left the workshop with clear direction on how to measure emergent and fluent readers, and the participants left convinced about the need to improve reading outcomes at scale in Kenya.

Mini-EGRA

During the week of July 16–20, PRIMR undertook a mini-EGRA in all 126 treatment schools and nearly 70 control schools. The purpose of the study was to provide course corrections for the PRIMR team as the program continues to be implemented. The mini-EGRA results were entered into a very simple Excel-based data entry system and results will be aggregated at the task level (rather than item level) to speed feedback, such that results can be shared with schools by the beginning of Term 3, to support the school report card process. The results, based on less than two years of intervention, were impressive. *Figure 4* shows that the effects were largest in letters, with over 18 letters per minute of a causal impact for both Kiswahili

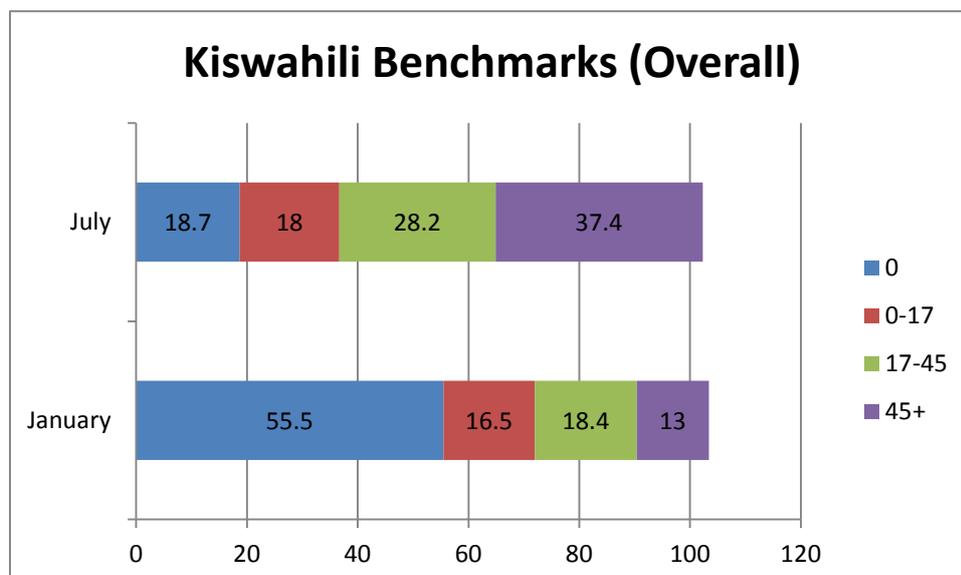
and English. The effects in reading were also statistically significant, while slightly larger in English than in Kiswahili.

Figure 4. Results of mini-EGRA, Kiswahili and English, July 2012



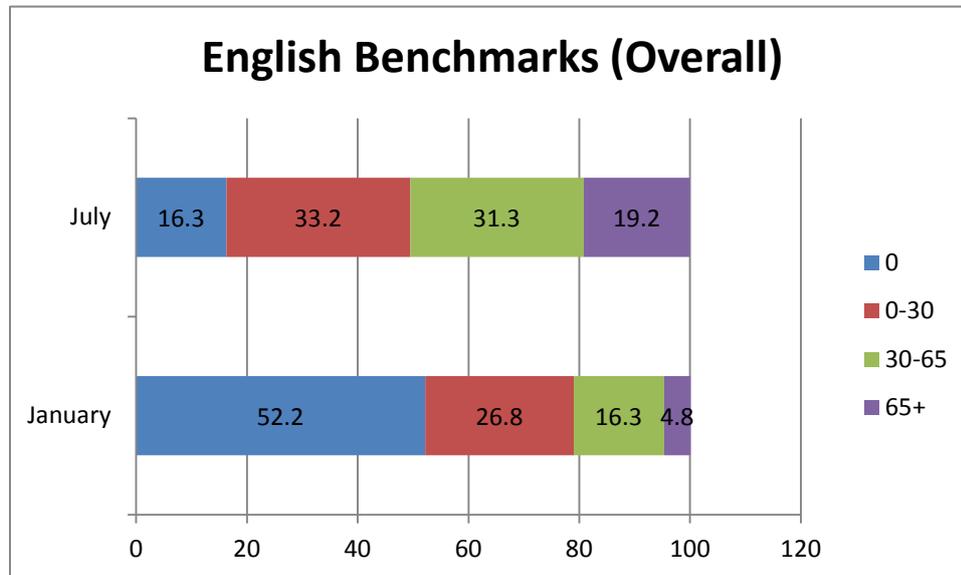
The mini-EGRA was also used to measure the gains toward the benchmarks recently set by the Ministry of Education and the KNEC Steering Committee. **Figure 5** shows the proportion of pupils at the benchmarks for pupils in January and July of 2012. It shows that the proportion of pupils who read at the benchmark in July was nearly 3 times as large (37.4% vs. 13.0%) as it was in January. Conversely, the proportion of pupils unable to read a word of text decreased from 55.5% to 18.7%, dividing the proportion of nonreaders by 3 times.

Figure 5. Proportion of pupils reaching national reading benchmarks, Kiswahili, January and July 2012



Similarly, the mini-EGRA results in English collected in July 2012 showed impressive gains. *Figure 6* shows that the declines in nonreaders were very large (52.2% to 16.3%) and the growth in the proportion of pupils who could read with fluency and comprehension increased from 4.8% to 19.2%, nearly quadrupling in a few months.

Figure 6. Proportion of pupils reaching national reading benchmarks, English, January and July 2012



Planning for Midterm Assessment

In accordance with the PRIMR design, a midterm assessment was planned for the beginning of the third term of 2012. The planning of the midterm involved the following steps: (1) finalizing the midterm EGRA and EGMA tools; (2) obtaining consent from parents and guardians of pupils included in the longitudinal study; (3) verifying the schools to be included in the assessment for Cohort 2 for the treatment of 2013; (4) training and pretesting the Tangerine software application on Kindles; (5) mobilizing, training, and assigning enumerators to the study sites, including zones/clusters and schools; and (6) planning the field logistics and mobilizing the supplies.

Finalizing the Midterm EGRA and EGMA Tools

The Kiswahili and English stories for the midterm, which had been developed and pretested in late 2011, were edited and pretested in three schools in September 2012. The pretesting also included the baseline stories that had been used in January 2012. The purpose of this exercise was to equate the stories using Rasch analytic methods to ensure that comparisons can be reliably made between the baseline and midterm assessments. One additional subtask, the Maze, was added to the EGRA assessment after the untimed stories and comprehension tasks were dropped. The Maze is another approach to assessing comprehension among young learners. At given intervals while reading a text, the pupil has to choose one correct word from three possible options to correctly complete that sentence in the text. A workshop was held thereafter between the PRIMR team and the PDIT team to modify the draft EGRA and EGMA tools as a final check before using the tools. Some of the issues at this workshop were

to use letter sounds instead of letter names, and some item-level changes were made to the list of letters, the nonwords, and the stories, in both Kiswahili and English.

Obtaining Parental/Guardian Consent

The PRIMR research design has a nested longitudinal study component. The longitudinal study aims at following approximately 1,000 pupils in Standard 1 by assessing them at baseline, midterm, and endline. A decision was made to include all pupils in Standard 1 in Cohorts 1 and 3 schools who were assessed at baseline in the longitudinal study. This would give us 117 schools, which would translate to 1,170 pupils both in public and nonformal schools. This number is expected to drop due to pupils leaving or changing schools for various reasons.

Two workshops were held with directors and head teachers of Cohort 2 and 3 nonformal schools in Nairobi in August. One of the goals of holding the meeting with the heads of Cohort 3 schools was to sensitize them about their role in helping PRIMR obtain signed consent forms from parents of Standard 1 pupils who had been assessed at baseline. Consent forms were distributed during this meeting and a request was made to have the forms signed and returned to the PRIMR project staff. Consent forms for Cohort 1 nonformal schools were distributed through the coaches in their respective clusters. Enumerators were engaged to collect the signed forms from the head teachers. Consent forms for public schools in Cohorts 1 and 3 were distributed through the TAC tutors despite the fact that public schools were planning a strike at the beginning of the third term, in September 2012.

Verifying Schools for Midterm Assessment

The schools initially selected as Cohort 2 schools were revisited to verify whether they were still interested in participating in the PRIMR initiative. The verification exercise was critical because it determined the frame from which we would randomly sample schools for the midterm assessment for Cohort 2. Coaches and enumerators were engaged in this exercise and some schools were substituted for having low enrollments or no interest in participating in the initiative. In the final analysis, 98 schools were randomly selected from Cohort 2 to participate in the midterm assessment.

Training and Pretesting the Tangerine Application on Kindles

The initial plan was to conduct the midterm assessment using the traditional method of paper and pencil. However, in August 2012, PRIMR decided to use the Tangerine application on Kindles to conduct EGMA, EGRA, and head teacher and teacher interviews. The classroom observations and inventory would still be done using paper tools. This decision was arrived at after cost comparisons were done and the use of Tangerine on Kindles was deemed cheaper over the life of PRIMR. The Kindles would be used multiple times and would eliminate approximately three weeks of data entry, compared to the traditional use of hard-copy tools. During the third week of September, RTI staff member Michael Costello trained the PRIMR team on how to use the Tangerine application on Kindles. He also worked with the research team in rendering the EGRA, EGMA, and the head teacher and teacher questionnaires into a format suitable for the Kindles. The procedure of using Kindles to collect data was pretested on 10 Standard 2 pupils in one nonformal school in Nairobi. The results from the pretest were

used to improve the Tangerine application further to take care of stop rules, timing, and other item-level issues. The team then finalized the rendering process in preparation for training the enumerators during the last week of September.

Mobilizing and Training Enumerators

A list of enumerators who had previously participated in the EGRA and EGMA assessments with RTI under PRIMR and previous assessments was used to select possible enumerators. Enumerators who had participated in both the baseline and the mini-EGRA assessments were contacted and a total of 55 were available. However, we needed to train 70 enumerators from which we would select 64. We were finally able to mobilize 69 enumerators, some of whom had to be trained on EGRA and EGMA for the first time. The enumerators were trained during September 24–29, 2012.

On the first day of training, the enumerators were taken through the basics of using the Kindles. The enumerators were then trained on EGMA and on the Kiswahili and English EGRAs. On the fourth day of training, the enumerators visited three schools and each assessed three pupils in either EGMA or EGRA. The supervisors remained behind and were trained by Dr. Piper on lesson observation using videotaped lesson observations. As is standard in large-scale assessments, the assessors were evaluated to determine the individual and group interrater reliability (IRR) on EGMA, English and Kiswahili EGRA, and lesson observations. The average interrater reliabilities were above 94%, which provides evidence of high-quality training. Assessors were grouped into 16 teams, comprising one supervisor and three assessors per team. Eleven teams were randomly assigned to various zones and clusters in Nairobi, two teams were assigned to zones in Thika, and three teams were assigned to zones in Nakuru.

Organizing Field Logistics and Mobilizing Supplies

A working budget for the midterm assessments had been prepared at the beginning of the planning phase. The working budget provided a framework for the purchasing of all the supplies and services required for the assessments. These materials included the purchase and transportation of the Kindles to the RTI project office, all the necessary stationery, photocopying of observation checklists and other documents, contracting of a transport company for vehicles to be used by enumerators and assessors in the field, etc. The routing of teams was also done during the last day of training in September 2012.

Regular Monitoring and Data Collection

The TAC tutors and instructional coaches observe, support, and monitor teachers at the classroom level, while the PRIMR team provides feedback to the TAC tutors and coaches on how they are supporting the teachers. The TAC tutors and coaches use a form to provide feedback to the teachers. This form also indicates how well the teachers are delivering the lesson plans in the classroom. The TAC tutors and coaches had limited time in which to observe lessons and obtain observation data at the classroom level. This is because July is the last month of second term before the August holidays and schools are involved in term examinations. Few monitoring forms were therefore received from TAC tutors in July.

However, keying-in of the data for the months of May, June, and July was done toward the end of the quarter, during July.

Challenges and Lessons Learned

The main challenge encountered in planning for the midterm assessments was the uncertainty around the third-term teachers' strike, which meant that the team was not sure whether the midterm EGRA and EGMA would take place on time. Although the team continued with the planning unabated, the teachers—through the Kenya National Union of Teachers—had already informed the government as early as August of their intent to strike. Secondly, but also critical, the team was aware that the strike would affect only the public schools, so the nonformal schools would continue with learning as usual. The implications were that while the public schools would lag behind in the implementation of the PRIMR activities, the nonformal schools would receive the usual support and the pupils would continue learning. This scenario would disadvantage the public schools since the dates for the midterm assessment were already set and a lot of planning done. The fact that August was a school holiday month also meant that schools would be closed and monitoring of teachers would be suspended until reopening, but again, with the looming strike in public schools in mind. As a result, not much activity in regular monitoring took place during the months of July and August, although it picked up in the first three weeks of September for the nonformal schools. However, the strike was called off during the week the enumerators were undergoing training, at the end of September.

Training of TAC Tutors and Coaches

The Teacher Advisory Centre tutors are critical for the success of the PRIMR Initiative. In the past year, PRIMR, along with the MOE and PDIT, led three major trainings for TAC tutor professional development: January 3–13, April 11–14 (Kiswahili and English reading), and July 2–4 (mathematics).

The reading training was supported by international reading experts Dr. Margaret Dubeck, Jessica Mejia, and Dr. Van Ginkel, as well as by project staff and local consultants, who included Dr. Inyega, Dr. Kioko, and Mr. Kazungu (now a PRIMR staff member). Some members of the PDIT team (Tom Oketch and Charles Kanja) also played a significant role in the training delivery. The goal of all the trainings was to impart to the tutors and coaches the same skills that they then provided to their teachers in trainings and during observations.

The January training focused on teaching coaches and tutors the foundations of reading theory and instruction as well as how to implement the Kiswahili and English lessons. It also aimed at giving the tutors skills on how to support teachers and practice lesson implementation. The April training taught the tutors more specific knowledge and skills on the five components of reading, the use of feedback to improve reading outcomes, and the integration of the Kiswahili and English lessons.

Critically, the July 2–4 math training, led by Dr. Piper and Dr. Mugenda, taught the TAC tutors how to implement the math component of the PRIMR Initiative.

Training of Teachers

The Cohort 1 teachers received three trainings during the fiscal year. The January 23–27 training focused on implementing the reading lesson plans while giving the teachers ample practice with the materials developed. The training focused on the five components of reading as linked to the reading lesson activities for Kiswahili and English.

Between April 16 and May 10, 2012, teachers in all 10 clusters and zones had a three-day training. The teachers from nonformal schools trained in April and those from formal schools in May. The training focused on ensuring that the teachers adhered to the lesson scripts and developed skills that would enhance learner improvement during the reading lessons.

The third training session, which focused mainly on math, took place in July 2012, lasting two days in each cluster/zone. The teachers were introduced to the conceptual framework for the PRIMR math program. The training ensured that the teachers became familiar with the PRIMR math lesson plans and student activity book. Of equal importance was the emphasis on use of formal assessment systems to inform decisions on when to reteach. The teachers appreciated the way the operation concepts were introduced to learners and how they gradually developed in complexity within the lesson plans.

Trainers were composed of the technical team led by the TAC tutors in charge of the respective zones. The training enhanced professional development of the teachers beyond teaching reading and math, with further strengthening taking place through ongoing support by the coaches in the classroom.

The training evaluation showed that the participants found the training topics very relevant and that their misconceptions about the program were sufficiently addressed. However, the teachers recommended that time be allocated in the lesson plans to focus on reading the stories and practicing comprehension strategies. The main areas identified as requiring more training were phonemic awareness, comprehension strategies, and word blending.

The picture below shows a teacher attending to blending strategies in Kiswahili. *Table 5* summarizes participant data for the term.



Table 5. Attendance summary for Term 2 training, PRIMR–Kenya

Meeting Date	No. of Days	Title of Meeting	Venue	Groups	Teacher Trainees			Teacher Trainers			TOTAL
					Male	Female	Total	Male	Female	Total	
April 11–13	3	Training Coaches/Teacher Advisory Centre (TAC) Tutors on reading	RTI boardroom	All	8	6	14	5	3	8	22
April 16–May 11	3	Teacher training on reading	Various	Nairobi West	2	32	34	1	1	2	36
				Nakuru Eastern	13	55	68		1	1	69
				Mauche	22	25	47	1		1	48
				Ithanga	27	18	45	2		2	47
				Dandora	10	73	83	1	3	4	87
				Congo	15	34	49	2		2	51
				Matopeni	4	31	35	2		2	37
				Kariobangi North	9	32	41	1	1	2	43
				Gichagi	8	36	44	1	1	2	46
				Gatwekera	6	16	22	2		2	24
				124	358	482	12		28	510	
July 1–5	3	Training TAC tutors/coaches in maths	RTI Boardroom	ALL	7	6	13	4	4	8	21
July 6–20	2	Teacher training in maths	Various	Nairobi West	4	38	42	2	1	3	45
				Nakuru Eastern	15	56	71	1		1	72
				Mauche	26	23	49		1	1	50
				Ithanga	25	19	44	2		2	46
				Dandora	8	73	81	1	3	4	85
				Congo	11	32	43	2		2	45
				Matopeni	5	33	38	1	1	2	40
				Kariobangi North	10	37	47	2	1	3	50
				Gichagi	6	22	28	1	1	2	30
Gatwekera	8	23	31	2		2	33				
			Total	118	356	474	14	8	22	496	

Supervision of Instruction

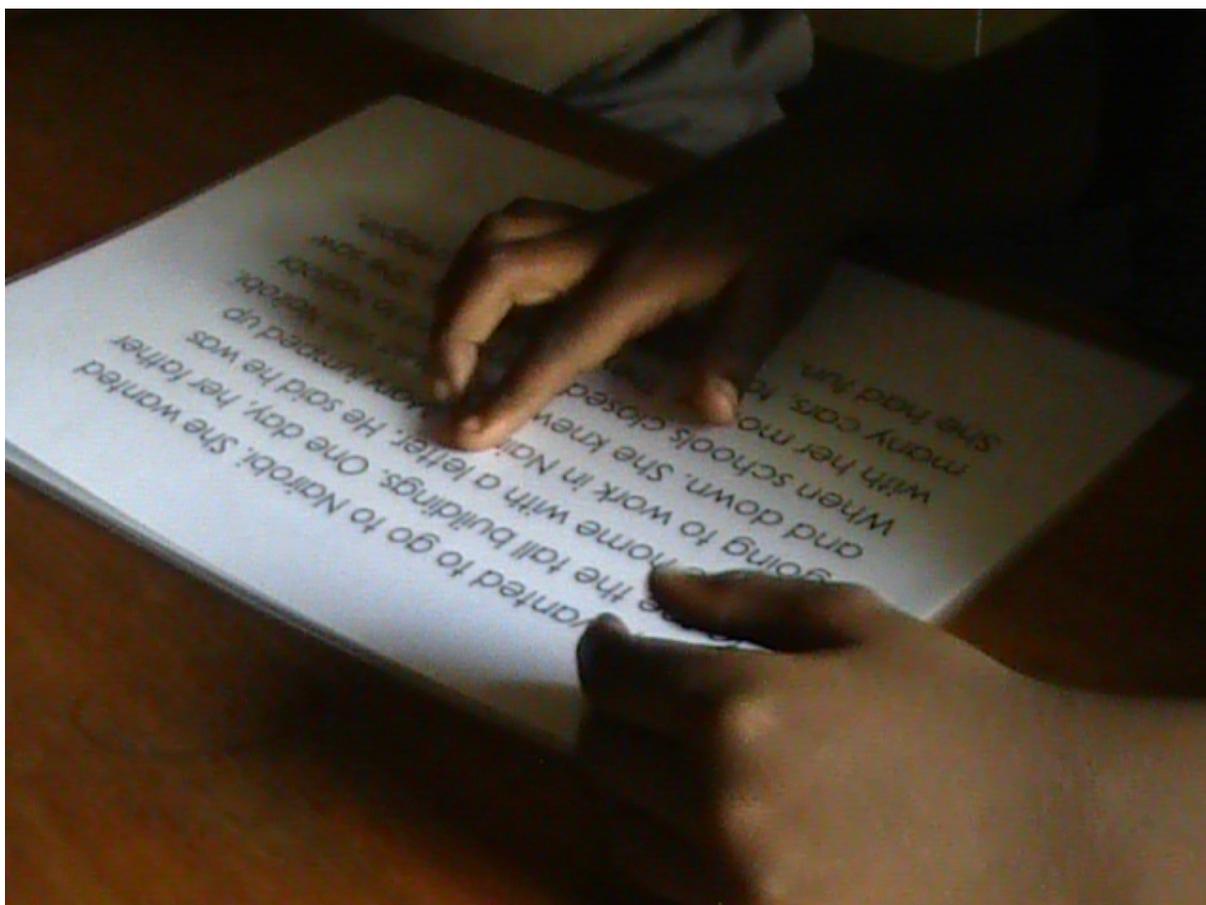
In Terms 1 and 2 (January–April and May–August), all teachers in all zones were observed and supported at least once per term. Each visit was punctuated by a discussion around a lesson feedback form, during which the tutor and the teacher would look at the feedback given by the tutor and discuss the impact it should have on the instruction the next time. This process also helped teachers to perform self-evaluations and work on improving lesson delivery and quality on a daily basis. The findings from the September lesson observations were that the teachers were not observed as frequently in the formal schools, owing to the threatened teachers' strike and the support TAC tutors were to give to national examinations.

To enhance the teacher support given by the tutors, the PRIMR team visited and supported the TAC tutors several times with the aim of helping them as they gave feedback to the teachers. The efforts in supervising instruction bore results in improving instruction in general and learning outcomes in particular. Teachers appreciated the support they got from the TAC tutors and the technical team members.

Reading Contests

All the zones implementing PRIMR had at least two reading contests in the past year. These reading contests were developed and organized to engage the community in the importance of reading, and the improvement in reading outcomes that can come from focused effort and attention to reading outcomes. In both terms, each school was invited to bring its best readers in both Standards 1 and 2, who would then compete at the zonal and cluster level. Some clusters and zones held semifinals at the nexus of a handful of schools in order to make the finals more easily manageable.

Gifts in the form of books and shields were awarded to the best learners, while most participants were appreciated with presents. This component has contributed to raising the profile of the initiative across schools and within the community among leaders and parents. The photograph below shows one of the stories created for the reading contests.



Cluster Meetings

Monthly reflection sessions provided an opportunity for the teachers and head teachers to share experiences in implementing PRIMR. Through these visits they encouraged each other in the work of improving reading and math outcomes in Kenya. The meetings are scheduled every month in all zones.

The TAC tutors used the sessions to address common issues arising from lesson observations and to improve on the instruction skills of the teachers. To do this, the TAC tutors modeled specific lesson activities; or sometimes they asked a teacher to model a lesson activity, for learning purposes. The TAC tutors also emphasized the need to prepare for the reading and math lessons and identify the required teaching aids. Some of the feedback from the teachers implementing PRIMR included:

- Learners have improved their comprehension strategies; they now find prediction easier and are developing the ability to get answers from the text.
- Teachers appreciate the lesson plans, saying the instructions are practical and systematic.
- PRIMR has given the pupils an opportunity to practice reading, although there is a need to allocate time for reading in the timetable.
- Standard 1 pupils are developing confidence in reading and can construct simple sentences.

- Including the head teachers in trainings resulted in the Standard 1 and 2 teachers expressing that they were seeing improved levels of support and interest from the school heads.

Distribution and Usage of Materials

The lesson plans, learner books, and classroom materials were finalized in February 2012, with Kiswahili and English materials supplied at the school level at a 1:1 ratio for every child enrolled in Standards 1 and 2. They were distributed to schools based on the agreement with KIE regarding the use of the materials for research purposes only (and with a stamp on each book to that effect). In-depth training on the use of the learner books happened during the second and third teacher trainings.

Each Standard 1 and 2 teacher and head teacher received three lesson plan books (Kiswahili, English, and maths). In addition, the teachers received a pocket chart and laminated letter cards, 2 assessment manuals (1 combined English/Kiswahili and 1 maths), laminated number grid, number cards with number operation signs, and a set of rulers. Each pupil received a learner book for the three PRIMR subjects as per the enrollment information provided by the schools. Each class received 21 titles of supplementary readers and a basket for holding the readers. A school report card was issued to each school. A guideline on the handling and usage of the PRIMR materials was also drafted by the technical team and shared with the schools during the delivery of the learner books. This was meant to safeguard the books and materials issued. The photograph below shows a pupil writing in the pupil activity book for math.



Impact on Pupils

The quantitative impact on student outcomes was shared above, and will be expanded in the midterm assessment evaluation. Apart from learning outcomes, teachers observed that pupils were enjoying learning due to the participatory approach of the program. They said it had enhanced active learning and helped in combating absenteeism. In Ithanga primary school, for example, a teacher reported that children insisted on going to school so that they would not miss the stories in the books. The program also helped in increasing learners' confidence and participation in class.

Response from the Community

Education programs of whatever size have a big impact on the community as well as the schoolchildren. The PRIMR Initiative's impact on the community has involved parents and the community at large appreciating the observed improvement in learners' reading abilities. The reading contest in particular has attracted citizens who have been heard commenting that initially a child in Standard 1 could not read with confidence, as exhibited during the contests. In some areas, such as Mauche, the effect of the program has been so pronounced that children were moved from a private primary school (academy) back to the government primary school. Parents are requesting for the program to begin at the preschool level and end at Standard 3 instead of the current Standards 1 and 2.

End-of-Term Exam Development

Work on the end-of-term exam continued during this final quarter of the fiscal year. With the support of the TAC tutors in the zones, the Standard 1 and 2 teachers formed exam-setting teams in the respective zones for a sustainable system.

Policy Study

During November and early December 2011, the first PRIMR policy study began. The study investigated the context within the MOE that is geared toward improving reading outcomes at scale nationally, and provided the basis for policy workshops occurring in mid-2012. The PRIMR policy specialist and Dr. Bunyi, the education policy consultant, took the principal lead in developing the policy framework analysis, preparing the interview tools, and undertaking the interviews. The key policy decision makers in the Ministry of Education Directorates and SAGAs were the target of the interviews. This provided an avenue to identify the current status and possible ways in which the MOE can reorient instructional improvement in the area of reading. Findings from the policy study were collected, analyzed, and reported in the second quarter of the year. This was followed by the writing of a report that incorporated the views of the MOE. **Table 6** is the list of key participants interviewed.

Table 6. Participants in policy study interviews

No.	Name	Directorate/office	Designation
1	Prof. George Godia	Education Secretariat	Education Secretary
2	Ms Leah Rotich	Basic Education	Director
3	Mr.Enos Oyaya	Quality Assurance and Standards	Director
4	Mr.Kimanith M'Nkanata	Field and Other Services	Director
5	Mr.Onesimus Kiminza	Policy, Partnerships and East African Community Affairs	Senior Deputy Director
6	Mr. Lawrence Baraza	Basic Education	Assistant Director
7	Mr.Charles Kanja	Field and Other Services (In-Service Education and Training [INSET] Section)	Senior Assistant Director
8	Ms. Lydiah Nzomo	Kenya Institute of Education (KIE)	Director
9.	Ms. Hellen Kimathi	Kenya Institute of Education (KIE)	Senior Assistant Director
9	Ms. Jennifer Wambugu	Kenya Institute of Education (KIE)	Assistant Director
11	Mr. Peter Kega	Kenya Institute of Education (KIE)	Assistant Director
12	Mr.Vitalice Juma	Teachers Service Commission (TSC)	Deputy Director (Primary)
13	Ms. Mary Rotich	Teachers Service Commission (TSC)	Senior Deputy Director Staffing (Secondary)
14	Mr. Hilary Lukhafwa	Teachers Service Commission (TSC)	Deputy Director Quality Assurance and Standards

No.	Name	Directorate/office	Designation
15	Ms. Melea Nthia	Teachers Service Commission (TSC)	Senior Staffing Officer
16	Mr. Paul Wasanga	Kenya National Examinations Council (KNEC)	Chief Executive Officer

The policy support to the ministry is aimed at initiating a dialogue for developing well-informed decisions about reading policy and education quality improvement programs, based on evidence from the PRIMR innovative research methods, and with a range of policy options for improving instruction at primary school levels and going to scale. During the interviews, it became apparent that there was lack of clarity among some members of the MOE about the type of strategy that would be undertaken for scale-up. It was, however, encouraging to note general agreement about the importance of reading improvements in the lower levels in Kenya.

The agreement about the importance of reading and lack of clarity on the scale-up strategy determined the starting point for conducting a policy study and reading research activities to improve learning outcomes in the lower primary classes in Kenya. The key activities undertaken included hiring a policy consultant, interviewing the key policy makers in the MOE, writing the report and incorporating MOE views, holding a policy validation workshop, and finalizing and producing the policy study report.

Policy Report Workshop

The draft policy report was presented at a workshop held in Nakuru July 22–25, with the following objectives:

- To validate the policy study report;
- To develop consensus on key policy issues for a national reading program; and
- To make recommendations for the next steps.

An impressive range of attendees was there, as *Table 7* shows.

Table 7. Participants at PRIMR policy workshop

No	Title	Name	Job Title	Organization
1	Dr	Teresiah Wambui Gathenya	Program Management Specialist - Education	USAID/Kenya
2	Mr	Harry N. Nzoya	Assistant Director of Quality Assurance and Standards	MOE - Directorate of Quality Assurance and Standards
3	Mrs	Grace N. Ngine	Quality Assurance and Standards City Education – Nairobi	MOE – Directorate of City Education
4	Mrs	Esther Kiriago	District Human Resource	Teachers Service Commission
5	Ms	Jane . Maina	TAC Tutor	City Education Department
6	Mrs	Grace Ngaca	Deputy Director of Education	Ministry of Education

No	Title	Name	Job Title	Organization
7	Mr	Lawrence O. E. Barasa	Assistant Director of Education	Ministry of Education
8	Mr	Jane Njagi	Executive Secretary	Ministry of Education
9	Mrs	Christine Otieno	Assistant Director of Education	Ministry of Education
10	Mr	Tom Owino Oketch	Research and Development Coordinator	Kenya Education Management Institute
11	Mr	Vitalice Juma	Deputy Director TM-TSC	Teachers Service Commission
12	Prof	Grace W. Bunyi	Professor	Kenyatta University
13	Mr	Charles M. Kanja	INSET	Ministry of Education
14	Ms	Dorine Mukoya	Senior Office Manager	RTI
15	Ms	Salome Ong'ele	Deputy Chief of Party	RTI
16	Mr	Isaac Cherotich	Education Policy Specialist	RTI
17	Dr	Dwaine Lee	Chief of Education	USAID/Kenya
18	Mr	Richard Mwangi	Finance Manager	RTI

The spirited discussion at the policy workshop dealt with the various aspects of MOE and SAGA operations necessary to undertake a national reading program. The 10 key elements agreed upon for reading/improvement of learning outcomes policy changes in the validation workshop included:

1. Take into account the Ministry of Education's preference for the national reading program to cover both early childhood development and lower primary.
2. Refocus and redesign the reading curriculum to emphasize the five components of reading (phonemic awareness, alphabetic principle, fluency, vocabulary and comprehension).
3. Put in place a system for institutionalizing the use of instructional materials produced within research programs, encouraging education partners working in the area of mother-tongue education to support the revision of the curriculum, developing and producing instructional materials in local languages, and publishing and/or supporting the private sector to publish textbooks for teaching and learning of reading in the local languages.
4. Increase instructional time from the current 30 minutes to 45 minutes per reading lesson by embedding "reading across the curriculum," in order to strengthen the learning of reading; and develop and adopt a strategy of reading across the curriculum.
5. Use the local or the predominant language in the school area in teaching reading and introducing Kenyan learners to reading. Introduce Kiswahili after pupils have already learned to read in their local language.

6. Harmonize the Primary Teacher Education (PTE) curriculum with the lower primary school reading curriculum. Emphasize the teaching of initial reading in the pre-service PTE program and Continuing Professional Support for teachers.
7. Develop a comprehensive in-service education and training on reading policy, and identify an appropriate home for overall effective coordination and accountability with a mandatory INSET course initially and every three years. The home for coordinating early grade reading was proposed to be the Permanent Secretary's office.
8. Have the Teachers' Service Commission and other relevant institutions develop and implement an effective and sustainable TAC tutors support system in instructional delivery.
9. Prepare a comprehensive reading assessment policy on the assessment of reading competencies. Institutionalize a national reading assessment to begin at Standard 3.
10. Have the SAGAs and the MOE undertake sustainable funding and budgeting coordination of the reading improvement program, with coordination from the office of the Permanent Secretary of the MOE.

The points above became the foundation of a document that was shared within the MOE and that will influence the development of various other PRIMR policy documents in the future. The PRIMR Initiative focus on policy support to the Ministry and its agencies is a continuing process, with more activities planned for Year 2 implementation. In particular, from the concept note on policy support approved by USAID in August 2012, we agreed that PRIMR's support for the MOE would change based on updated events. The policy support to MOE reading program will focus on offering advice in two main areas:

- Further developing the reading policy and management framework for the delivery of national reading services; and
- Building the capacity of a range of education and teaching personnel to deliver appropriate and high-quality education learning outcomes.

PRIMR's payment schedule notes that Milestones 15 and 20 are "policy studies." We suggest that, based on the status of the national reading program in Kenya, these policy studies consist of the following content.

- Results of workshops organized to support national reading program interventions
- Results of workshops organized to engage stakeholders on reading policy
- Results of technical assistance (short and long term) organized to develop the MOE's legislation on literacy and improving the quality of education

Progress Toward Deliverables

PRIMR has been working diligently toward the project deliverables for the PRIMR Initiative. *Table 8* presents progress on those deliverables since 2011.

Table 8. Progress toward deliverables for 2011-12

No.	Milestone	Date	Status	Notes
1	Final mobilization plan	10/7/11	Completed	Shared with the MOE and USAID
2	Work plan	10/26/11	Completed	The final version had a table of key

No.	Milestone	Date	Status	Notes
				activities
3	Program monitoring plan (PMP)	2/15/12	Completed	RTI responded to useful improvements from USAID
4,5,6	Kiswahili/English/math draft lesson plans	4/30/12	Completed	The Kiswahili and English lesson plans were submitted earlier
7	Baseline report	6/8/12	Completed	The baseline report includes the SSME report funded by EdData II Task Order 7
8	Findings workshop	8/30/12	Completed	This is the proceedings of the KNEC steering committee meeting where benchmarks were set
9	Pilot and finalize instructional model		In progress	Based on the review of the materials from the MOE, KIE, and PRIMR teachers, the new lesson plans and model are being revised currently. This would have been completed earlier if PRIMR had started in June 2011.
10	Policy study	8/30/12	Completed	The policy study was updated based on the comments of the workshop participants
11	Term 2 training completed, Cohort 1	9/14/12	Completed	This includes the training for Maths in the middle of Term 2, and the reading training prior to Term 2
12	ICT lesson plan		In progress	RTI is working on digitizing the lesson plans to tablets
13	Midterm report		In progress	RTI currently has data from the October midterm which will be cleaned and then analysis can start
14	Findings workshop		Not started	After analysis is completed, the findings will be shared in small groups and a workshop
15	Policy study		In progress	The new design of the policy study includes technical input to the MOE over time
16	Term 2 training completed, Cohort 2		Not started	This will occur during Term 2 of 2013
17	Post testing report		Not started	After the final assessment in October 2013
18	Term 1 training completed, Cohort 3		Not started	This will report on training activities for the control schools
19	Findings workshop		Not started	Based on the final assessment, summary findings of PRIMR
20	Policy study		Not started	This will include the details of how PRIMR has supported the MOE's

No.	Milestone	Date	Status	Notes
				policy activities
21	Final workshop/report		Not started	Based on the entirety of PRIMR activities