Guidance Notes for Planning and Implementing EGRA

Written by:
RTI International and
International Rescue Committee
July 2011

Table of Contents

Annexes

Annex 1: Introductory Presentation
Annex 2: EGRA Sample Instrument
Annex 3: Relevant EGRA Sampling Principles
Annex 4: Simple Work Plan Example
Annex 5: Detailed Work Plan Example
Annex 6: Guidance on Budget Inputs
Annex 7: How to Prepare Letter- and Word-Frequency Lists
Annex 8: Criteria for Oral Reading Fluency and Comprehension Stories
Annex 9: Basic EGRA Subtask Scoring
Annex 10: Sample Agendas for Adaptation Workshops
Annex 11: Sample Assessor Handouts
Annex 12: Sample Supervisor Handouts
Annex 13: EGRA Assessor Training—Agenda Examples
Annex 14: Scoring Presentation
Annex 15: Assessor Observation Checklist
Annex 16: Overview of Interrater Reliability (IRR) Test Administration and Scoring
Annex 17: Sample Data Collection Itinerary and School Schedule
Annex 18: Sample School Codes
Annex 19: Sample EGRA Findings Workshop
Annex 20: Sample EGRA Brief

List of Tables

List of Figures

Preface

Reading is a fundamental skill for children. It is also a foundational skill, upon which acquisition of other critical skills and knowledge depend. Nevertheless, it is one that the majority of children in low-income countries are not acquiring as improvements in student learning lag significantly behind improvements in access to schooling.[1] Assessments in dozens of low-income countries have revealed that the majority of students cannot read even one word of a simple test and even students who have been enrolled in school for as many as six years are unable to read well.[2]

Without basic literacy skills, children are unable to learn, and therefore have little chance of succeeding in school and beyond. Research indicates that children who do not learn to read in the early grades (grades 1–3) are likely to fall further and further behind as they grow older. Moreover, students who do not learn to read in the first few grades are more likely fall behind in other subjects, to repeat grades, and eventually to drop out.[3]

Recognizing that reading is a skill fundamental to learning, education stakeholders increasingly are focusing efforts to improve education on ensuring that children exhibit literacy skills in the early grades, and that these skills are measured through reliable assessments. With this purpose, the United States Agency for International Development (USAID) and the World Bank helped to fund RTI International's development—in conjunction with other experts and donors—of the Early Grade Reading Assessment known as EGRA, to systematically assess students' reading abilities in the early grades in low-income countries.

The EGRA instrument is designed to assess foundational reading skills that a child must have to read fluently with comprehension.

The EGRA instrument is composed of subtasks designed to assess foundational reading skills crucial to children's successful reading and comprehension abilities. These subtasks are based on research regarding a comprehensive approach to reading acquisition across languages, including these five essential components: phonological awareness, alphabetic knowledge/process, vocabulary, fluency, and comprehension.[4] In particular, EGRA measures oral reading fluency, which has been shown to predict

---

[1] World Bank: Independent Evaluation Group. (2006). *From schooling access to learning outcomes—An unfinished agenda: An evaluation of World Bank support to primary education.* Washington, DC: World Bank.

[2] For a summary of EGRA work and results to date, see the website for the U.S. Agency for International Development's (USAID's) Education Data for Decision Making (EdData II) project, www.eddataglobal.org; and A. Gove & P. Cvelich, *Early reading: Igniting education for all. A report by the Early Grade Learning Community of Practice. Revised edition* (Research Triangle Park, NC: Research Triangle Institute, 2011). Available at http://www.rti.org/pubs/early-reading-report-revised.pdf.

[3] This phenomenon, known as the "Matthew Effect," is based on research showing that pupils scoring below a certain reading level by the end of grade 1 stay behind throughout their academic career, and the gap widens as they grow older. Source: Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(4), 360–407. doi: 10.1598/RRQ.21.4.1.

[4] Several of these terms are defined in the glossary of a previous toolkit prepared by RTI: RTI International. (2009). *Early Grade Reading Assessment toolkit.* Prepared for the World Bank, Office of Human Development, under Contract No. 7141961. Research Triangle Park, North Carolina: RTI International. Available at https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=149. French and Spanish adaptations of the toolkit also are available on the project website.

---

later skills in reading and comprehension.[5] As such, EGRA is conducted orally and one-on-one with pupils, and takes about 15 minutes to administer per child.[6] In its most common application, it is administered to a sample of many children across multiple schools or districts in order to obtain generalizable results and reliable averages. In these *Guidance Notes,* we refer to all multichild applications as an EGRA *survey.*

Practitioners worldwide are continually developing new EGRA instruments for new languages, grades, and contexts. This process is facilitated by the fact that EGRA is a method-independent approach to assessment. That is, the instrument does not reflect a particular method of reading instruction, but rather measures basic skills that a child *must have* to eventually be able to read fluently and with comprehension. EGRA is a tool for measuring performance in early grade reading skills and by extension, an education system's success in enabling children to learn.

Along these lines, there are many diverse uses for reading assessments. Generally, the results of EGRA surveys inform ministries, donors, educators, and other stakeholders (such as parents) about children's reading ability so that they can make better decisions to improve education policies and practices. Specifically, the results can be used to:

- Establish a nationally representative baseline to inform government policy;

- Assess the impact of an organization's intervention; or

- Identify children in the classroom who need additional support.

The common purpose underlying such assessments is a desire to improve children's reading skills and learning outcomes. With this goal, EGRA has been conducted in 45 countries and over 40 languages since 2005 to evaluate children's reading abilities and to help improve the quality of education. Although the format of the instrument has not changed significantly in the past six years, RTI and other users have learned much about planning and implementing such an assessment.

In 2010, the International Rescue Committee (IRC) and RTI identified a need to document this learning and to give practitioners more guidance regarding EGRA development, planning, and implementation. As a result, the organizations collaborated to prepare guidance notes for practitioners based on their experience conducting different types of EGRA in various country contexts.

The result of our partnership is this reference work, the *Guidance Notes for Planning and Implementing Early Grade Reading Assessments (EGRA),* which provides step-by-step assistance for planning and implementing an EGRA. Each of the six chapters outlines a key stage related to the development and implementation of EGRA, including a step-by-step overview of the process, personnel needed, activities and tasks, and outcomes of each stage. Although the *Guidance Notes* are detailed, they are not meant to be a stand-alone tool; rather, they supplement existing resources on EGRA such as the *Early Grade Reading Assessment toolkit.* We expect that the *Guidance Notes* may be revised over time to reflect continued learning, especially as even more organizations begin to use EGRA or EGRA-like instruments.

---

[5] Fuchs, L., Fuchs, D., Hosp, M. K., & Jenkins, J. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading, 5*(3), 239–256.
[6] Administration of EGRA is described in detail in RTI International (2009), the *Early Grade Reading Assessment toolkit* (see earlier footnote).

The intended audience for the *Guidance Notes* is staff of nongovernmental organizations (NGOs) working in the field of education, of donor agencies, and of Ministries of Education interested in early grade reading assessment. We hope that the *Guidance Notes for Planning and Implementing Early Grade Reading Assessments (EGRA)* will serve as a useful resource for practitioners who are striving to improve children's reading skills and learning outcomes.

Acknowledgments

Introduction

Implementing an EGRA successfully involves the hard work of a dedicated team of people. In general, EGRA teams are composed of people from international and local organizations, Ministry of Education counterparts, and others, each of whom plays a role in conducting the EGRA. Each member of this team brings to the EGRA development and implementation process different technical expertise, management skills, and country-specific knowledge. Throughout this document, we use the term "EGRA team" to refer broadly to the group of people who make decisions about EGRA development and are responsible for key tasks.

This EGRA team works together over several months to identify the purpose of the EGRA, adapt the instrument to a particular language and context, train a team of data collectors, analyze data, and disseminate results. Throughout the process, the EGRA team balances priorities regarding the budget, time availability, and other potential constraints, to ensure valid and reliable results.

Because these *Guidance Notes* are directed at those who will be involved developing and implementing an early grade reading assessment, the guide is addressed to "you," a person involved in the EGRA process. Most likely, you will be part of the EGRA team.

Each chapter in the *Guidance Notes* includes an overview of the different members of the EGRA team needed for a particular task, outlining their key roles and responsibilities. Because the *Guidance Notes* are designed to explain the process of designing and implementing an EGRA survey, the chapters are arranged in chronological order to present the key steps of EGRA development and rollout:

Chapter 1: Pre-Implementation Planning provides an overview of how to plan an EGRA. This first chapter explains the importance of collaborating with the Ministry of Education (or equivalent national-level organization) and determining the purpose of the EGRA survey. It provides guidance on building your EGRA team, identifying your EGRA purpose, determining an appropriate sample, and selecting a sampling methodology. Practical topics such as developing a work plan, hiring relevant staff or subcontractors, and budgeting are also covered.

Chapter 2: Instrument Adaptation outlines the expertise and steps needed to adapt the EGRA instrument to a particular context. It explains how to develop subtasks, and how to plan for and facilitate an instrument adaptation workshop. The chapter also outlines the steps involved in pretesting and piloting the instrument to ensure that it is reliable.

Chapter 3: Assessment Training provides guidance on how to prepare and conduct a multiday training on EGRA administration for assessors and supervisors. This chapter explains training logistics, as well as how to build the capacity of trainees, how to provide practice opportunities and feedback to trainees, and how to evaluate and select assessors.

Chapter 4: Data Collection describes how to plan for and conduct the main EGRA survey. This chapter offers practical advice on how to prepare teams for data collection, including selecting samples of students, managing EGRA questionnaires, and reporting on fieldwork.

Chapter 5: Data Analysis and Reporting provides an overview of various options for data management and outlines the post-assessment processes of data entry, data cleaning, and data analysis. In addition, Chapter 5 provides guidance on how to prepare a technical report presenting EGRA results.

Chapter 6: EGRA Results: Dissemination and Next Steps explains how EGRA results can be disseminated and used to improve children's reading outcomes. It describes and gives examples of how EGRA results can be used to inform education stakeholders about student's reading ability, to foster social mobilization, to advocate for improved education policies and practices, and to design and implement reading programs.

Chapter 1: Pre-Implementation Planning

Implementing an Early Grade Reading Assessment (EGRA) survey successfully with even a small sample of students (e.g., for a pilot test) involves significant coordination, resources, and planning. Some steps must be undertaken to prepare for all EGRA assessments, while other steps, stakeholders, and details will vary according to the country context, specific goals, and available funding.

In-country experience from numerous EGRA surveys on multiple continents has shown that the planning process requires flexibility and attention to detail as the EGRA team considers multiple factors simultaneously. Your team will probably need to collaborate with stakeholders, especially the Ministry of Education (MOE). Once your team and partners have jointly decided the EGRA objectives, you will need to design an appropriate sample size and sampling methodology in order to determine which results are statistically significant. Then, you will need to plan for implementation of your design by developing your work plan, team, and budget.

This chapter offers guidance on:

- How to build your EGRA team

- How to collaborate with stakeholders, particularly the Ministry of Education

- How to identify the purpose of your EGRA

- How to determine your EGRA sample size

- How to choose appropriate sampling methodologies

- How to develop a work plan

- How to prepare an EGRA budget

The ultimate goal is to prepare adequately for an EGRA survey that successfully produces valid results and helps stakeholders improve children's ability to read proficiently.

Building Your EGRA Team: Roles and Expertise

Designing and conducting an EGRA survey requires a well-coordinated team in which different members can provide the necessary expertise. Therefore, your initial team will have to identify both international and local staff qualified for the various tasks specific to each team. Hiring qualified national staff helps promote country ownership and will help to navigate the political environment.

Team Leader: This person is responsible for preparing the work plan, managing the budget, and supervising the project overall. In most cases, the team leader's duties include establishing a relationship with the Ministry of Education, training and supervising assessors who administer the instruments to the children, and sometimes analyzing the data and preparing reports. The team leader should be a senior person with prior experience working with the Ministry of Education, implementing education surveys, and managing projects.

Project Staff (e.g., an administrative assistant or project manager) or Subcontractor: You will need an in-country team to manage logistics related to EGRA development and implementation, including travel and lodging for training, travel and lodging for assessors, payment of all parties, management of testing and training materials, etc. First, you will need to assess whether your organization has the necessary on-the-ground capacity. If your organization does not have the necessary in-house capacity, you can either hire new staff or dedicate existing staff to these EGRA-related tasks. Alternatively, it is sometimes more appropriate and/or cost effective to hire a local logistics firm to carry out the work. If you choose to hire a local firm (usually as a subcontractor), preference should be given to organizations with experience conducting surveys and/or organizing and managing large events. Furthermore, a project staff person will still be required to oversee the subcontractor's work and ensure quality and harmonization.

> ## LESSON LEARNED:
>
> ### Linguists—Not Just Translators—Are Needed to Ensure Proper Adaptation
>
> Keep in mind that EGRA testing instruments cannot simply be translated from one language to another (see also Chapter 2). To ensure proper adaptation of the EGRA components, a language specialist or linguist is needed to provide technical guidance regarding the language's properties, which will affect the subtasks selected as well as letter and word choice.
>
> If your team cannot identify a suitable linguist in country, then an internationally based linguist can provide guidance and feedback before and during adaptation. If this linguist is not fluent in the language, he or she should be familiar with the language family and work with someone in country who is fluent in the language.

Language Specialist: A language specialist, or possibly a linguist, is someone with academic training regarding a language's structure and properties. This person (or persons) contributes to the development of test materials in the relevant language(s). The language specialist must be fully proficient in the language in which the EGRA is developed. This person should be a trained linguist, and not someone who is only proficient in the language.

For each language of assessment, recruit a language specialist who can provide input on language properties and rules, including legal combinations for vowels and consonants, sounds of the language, and differences among letters, digraphs (such as "ch" or "ph" in English), and diphthongs (dual vowel sounds such as in "ray" or "cow"), in the language. The language specialist should receive ongoing support from the team leader and project staff knowledgeable about early grade reading assessments. The language and reading specialists (see below) should work closely together to construct the EGRA instrument.

Reading Specialist: This person is responsible for leading the development of the EGRA instrument and facilitating workshops to refine the EGRA tool and train assessors. This specialist may also be responsible for presenting the findings of the data analysis and engaging in a discussion with Ministry of Education authorities regarding the results. Ideally, a professor or consultant who is expert in early grade reading and the teaching of early grade reading should be employed. Additionally, the reading specialist should have prior experience adapting or creating early reading assessments and training assessors, as well as knowledge of the country or region. Knowledge of reading assessment is essential.

Curriculum Specialist: This should be an MOE staff person responsible for and knowledgeable about the primary school curriculum who can advise on how reading and language are supposed to be taught in schools. Your team can contact this person and invite him or her to participate in the instrument adaptation, but does not necessarily need to hire the person as a consultant.

Data Collectors/Assessors: These people are responsible for administering instruments directly with students. It is preferable that assessors have experience with children, experience in education, attention to detail, and some facility with technology. All assessors must be able to participate fully in the

assessment training and be available for the entire duration of data collection. Using MOE staff can help build local capacity. However, if MOE staff are not feasible or appropriate, local university students may be good candidates. As described in Chapter 3, your team should require all assessor candidates to pass a screening test before being hired. This precaution helps ensure consistency in data collection and quality of results. Therefore, your team should train more assessors than required by your survey design, so you can select the best ones to conduct the assessment.

Data Entry Supervisor: This person is responsible for overseeing the data entry process and ensuring quality control. He or she must be familiar enough with computers to learn and understand the chosen data entry system and to assist in training others. The data entry supervisor (in collaboration with the team leader, as applicable) will be responsible for training data entry clerks in accurate data entry. The supervisor will evaluate the quality of data entry on an ongoing basis and be responsible for ensuring that all data are entered as accurately as possible. The data entry supervisor should have previous experience supervising data entry and experience using the particular database (see Chapter 5 for information about database software).

Data Entry Clerks: These people are responsible for all data entry associated with the EGRA survey over the course of several days or weeks. Your team should hire candidates with good attention to detail, a facility with technology, and the ability to attentively and efficiently perform repetitive tasks. Again, as with the assessors, if funding permits, train more candidates than required, and then hire only those who enter data the most quickly and accurately.

Translator: This person is responsible for translating the protocol instructions into relevant languages, if the language specialist has not done so. However, as described earlier, the actual items on the EGRA testing instruments are adapted, not translated.

Statistician/Survey Specialist: Depending on the complexity of your survey, you might need a statistician or survey specialist on your EGRA team. This person should be knowledgeable in sampling and research design as well as basic statistics. He or she can be either a staff member or an outside consultant, but should at least be brought in to help with complicated sampling procedures if at all possible.

TIP: If any foreign staff or consultants are required, then your team will need to arrange the appropriate visas, government permissions for field travel, and security measures well in advance of the assessment.

LESSON LEARNED:

Estimating Assessor Workload

In general, assessors require approximately 15 minutes to administer the EGRA instrument to one child. This means that one assessor can test about 10–12 students in a typical school day. Test administration may take less or more time depending on how many subtasks your team includes in your instrument.

Remember to allow time for either supervisors or peer enumerators to check data at the end of the day for completeness and consistency, and for protocol at schools such as talking with the head teachers and signing their guest book. A pretest of your instrument during the adaptation workshop and/or a pilot survey afterward may help your EGRA team determine how much time each assessor needs to conduct a particular instrument.

This way you can adjust the number of assessors up or down to ensure to the necessary number of tests are administered each day to complete the survey within the time frame. In other situations, the number of assessors can remain static and the length of the survey can be extended as needed.

Collaborating with Stakeholders

One crucial element in pre-planning is the involvement of key stakeholders, especially the Ministry of Education. Since the ultimate goal is to use EGRA results to increase children's learning

outcomes, a participatory approach helps to build government ownership and cultivate national champions who can help ensure that the results are disseminated and have the intended positive impact on policies, programs, and projects related to early grade reading.

In the pre-implementation stage, you will need to cultivate contacts within the MOE, including those responsible for curriculum development, planning and budgeting (finance), data collection (education management information system, or EMIS), school inspection, and monitoring and evaluation. Ideally, your team will be able to establish a point person who can put you in touch with—or liaise with—any necessary departments. This is useful especially as some countries choose to implement EGRA more than once, first with outside help and later on their own. The sustainability of EGRA for future follow-up surveys depends on staff throughout the ministry understanding EGRA and the relevant planning, implementation, and budget requirements. When cultivating these contacts, identify government staff with relevant technical skills who will be able support EGRA planning, implementation, and follow-up in the long term. (This will also help to address the challenge in some countries of high turnover of politically appointed ministry staff.)

Aside from government stakeholders, your team should inform other stakeholders, such as research institutes, nongovernmental organizations, teachers' unions, and civil society organizations, of your interest in conducting an EGRA. These people should be invited to participate in key meetings, as appropriate. Some stakeholders may be able to provide advice or to help identify technical experts and the many individuals who will be needed to serve as EGRA assessors. The extent of your team's relationships with various stakeholders will depend on several factors, including the size and scope of your EGRA. However, by including a variety of stakeholders, you can build a broader coalition for results-based advocacy.

> ## LESSON LEARNED:
> ### Government Participation Increases Sustainability
>
> In Nicaragua in 2008, the original purpose of conducting an EGRA survey was to compare the reading performance of students in public and private schools, a particular interest of the funding organization (USAID). However, the EGRA team's inclusion of ministry officials in all steps of the EGRA process helped to build a genuine interest within the government. As a result, the Nicaraguan MOE provided inputs into the structure of a subsequent EGRA-related project. The MOE requested follow-up teacher training and production of an instructional video to build the capacity of teachers to use EGRA as a classroom-level tool. By 2010 the ministry was working to make EGRA a sustainable part of its national assessment system rather than a one-time occurrence.

After you have identified the relevant stakeholders and champions, your team should schedule individual meetings and/or a group meeting to discuss the design and implementation of the EGRA survey and to request informational inputs. Before the meeting, your EGRA team should prepare a brief document and/or presentation about early grade reading, the EGRA instrument, and the purpose of the assessment in your particular context. The sample PowerPoint presentation in **Annex 1: Sample Introductory Presentation on EGRA** can serve as a resource for your team in this regard, and **Annex 2: EGRA Sample Instrument** can show what an actual instrument looks like in English. Instruments in various languages from different country contexts are available from the website for the United States Agency for International Development's (USAID's) Education Data for Decision Making (EdData II) project, www.eddataglobal.org, along with video and audio demonstrations of students being assessed using adapted EGRA instruments.

Designating a specific agency or person as the primary government representative is a good idea to ensure that your team and the government communicate well among yourselves and that you project consistent messages to the public. Once these relationships are established, your EGRA team should foster meaningful participation by the designated representative(s) and discuss the design and implementation with the government. While the government or an outside funding organization may have predetermined some aspects of the assessment, a collaborative relationship can still give your team

genuine opportunities for dialogue and for giving government feedback due consideration. Harmonizing EGRA with the government's priorities builds ownership and increases the likelihood of sustainability of your endeavor.

Aside from building relationships with key government contacts, you should emphasize information sharing in the pre-implementation planning stage, especially in regard to sampling. If you are using EGRA survey to establish a national baseline on children's reading performance, for example, you will need EMIS or other data from the Ministry of Education.

The checklist in ***Box 1.1*** provides an overview of the information you will need to request from ministry officials. You will be able to gather some of it through informational interviews. In other cases, government officials will need to share or prepare documents and data. Note that the checklist presumes your team has made at least a preliminary determination of what the sample population of interest will be. (A later section of this chapter addresses sample selection in detail.) ***Table 1.1*** then suggests appropriate ways in which to involve ministry personnel.

1.1 CHECKLIST FOR BASIC INFORMATIONAL INPUTS FROM THE MINISTRY OF EDUCATION

☐ Comprehensive primary school list with enrollment by grade, school location, and contact information; EMIS code; and number of teachers by grade for the sample population(s) (*Note: These data may not be available, so your team may need to explore alternative means for collecting the information ahead of the EGRA data collection.*)

☐ Academic calendar(s) for primary schools in the sample population(s)

☐ Names and contact information for ministry staff responsible for primary school curriculum components related to reading and/or language instruction, materials development, and/or teacher training

☐ Names and contact information for ministry staff responsible for assessment

☐ Names and contact information of relevant in-country language institutes and resource people

☐ Copies of curriculum and texts for relevant grades/subjects and sample population

☐ Results from any recent relevant assessments conducted by other projects or funders

☐ OPTIONAL: Copy of Living Standards Measurement Survey (LSMS) questionnaire (or other household questionnaires used in the country) to assist with developing local socioeconomic status questions

TIP: In some cases, a donor such as USAID may have already established working relationships with key officials. In other cases, you may need to ask the Minister of Education to assign one or more point person(s) to facilitate communication.

Table 1.1: Opportunities for Government Participation in EGRA Process	
Identification of EGRA Purpose	Ministry can/should provide input into the purpose of the EGRA survey.
Sample Design	Technical experts from the MOE may provide input into the sample design.
Adaptation	Technical experts from the MOE should aid in the adaptation of the assessment instruments and participate in the adaptation workshop (see Chapter 2).

Table 1.1: Opportunities for Government Participation in EGRA Process	
Implementation	MOE staff can participate in the assessment process as supervisors, assessors, and/or data entry clerks as appropriate. In some countries, ministry officials will need to provide formal notification to sampled schools and authorities about their participation in the assessment.
Post-Assessment Results and Dissemination	Senior MOE staff should participate in the policy-dialogue activities that take place following the assessment.

Identifying Your Team's Purpose

The combined results of an EGRA survey can be used to support improvements in education policies, interventions, or teaching practices. As a starting point, it is imperative that your team is clear about the purpose of implementing the survey. This clarity will help your team determine the scope and scale of the assessment—if such details are not already determined by a donor agency, for example.

To ensure your EGRA survey is oriented toward your desired results and is context-specific and budget-appropriate, start by reflecting on what you wish to learn about students' early reading skills and why. Based on what you would like to know, EGRA can be used as described in *Table 1.2:*

Table 1.2: Types of EGRA Surveys, According to Purpose	
If you are interested in….	EGRA can be used as a…
• Obtaining a rough estimate or picture of students' reading ability in a particular population	Reading "Snapshot": Using all or selected EGRA subtasks, the assessment can quickly determine reading levels to raise awareness about reading challenges and motivate policy makers, ministry staff, donors, and civil society to take action.
• Ascertaining students' reading ability throughout the country • Identifying differences in student literacy development across regions, languages, types of schools, and sex • Determining the effect of language policy on students' reading development	National or System-Level Diagnostic: Using all subtasks relevant to the curriculum and language, EGRA can thoroughly examine gaps in reading competencies to help improve policy, curriculum, and pre-service and professional development programs for teachers.
• Knowing whether a particular reading intervention is effective in improving children's reading performance • Comparing the effectiveness of different programs aimed at improving reading outcomes	Impact Evaluation: Using relevant subtasks, an EGRA survey can be used to detect change over time in student performance resulting from an intervention aimed at improving reading instruction and learning outcomes.
• Identifying whether students in a particular classroom are developing reading skills with current interventions • Identifying whether instruction needs to be differentiated for students in a classroom • Monitoring student progress	Classroom Assessment: Using selected subtasks relevant to classroom instruction, teachers can apply EGRA to conduct a mastery check of a whole class or to monitor progress of particular students against norms and benchmarks for the grade in order to inform instruction at the classroom level.

Box 1.2 offers a checklist that your team can use to formulate the exact purpose of your EGRA survey.]

1.2 USE THE "FINER" CHECKLIST TO EVALUATE YOUR EGRA'S PURPOSE

☐ **F = Feasible.** Evaluate your purpose by ensuring the research design is practical in terms of number of subjects, technical expertise, time, funding, and scope.

☐ **I = Interesting.** Ensure your question is of interest to various stakeholders (including experts, government officials, and funding agencies) before preparing a complete research design or proposal.

☐ **N = Novel.** Avoid duplication by ensuring your team is aware of preexisting and ongoing research by other agencies in your country. In some cases, there may be value in evaluating how effective a previously assessed intervention is performing with a different population or modifications.

☐ **E = Ethical.** Consult with an existing Institutional Review Board (IRB) or form an ad hoc body to determine if your proposed methods meet ethical criteria.

☐ **R = Relevant.** Consider how the possible results might pertain to your team's purpose.

Source: Adapted from Cummings, S. R., Browner, W.S., & Hulley, S. B. (2007). Conceiving the research question. In S. B. Hulley, S. R. Cummings, W. S. Browner, Grady, D G., & Newman, T. B. (Eds.). *Designing clinical research* (3rd ed., pages 17–26). Philadelphia, Pennsylvania: Lippincott Williams & Wilkins.

Survey Design

The design of your team's EGRA survey depends on the research questions, or what you'd like to survey to tell you about the reading performance of different populations and subpopulations. If your country context is multilingual, your team will need to determine the most appropriate language(s) of assessment. Keep in mind, however, that directly comparing EGRA performance across languages is not recommended due to differences in orthography (transparency of the language, word length, structure, etc.) that affect the rate at which children learn to read. Further explanation on why cross-language comparisons are not appropriate can be found in the *Early Grade Reading Assessment toolkit*.[7]

While EGRA results should not be directly compared across languages, it is possible and useful to compare performance of different groups within a common language of assessment. You should base the decision to compare different subpopulations on pre-identified needs and interests, as well as logical reasoning regarding why comparisons may be warranted. For example, the MOE may want to compare reading outcomes across districts, but if the districts are relatively small and/or homogenous, such a comparison would not be logical (and would be extremely costly, if there is a large number of districts).

Each additional comparison will increase the sample size and consequently the time and cost needed for the survey. Therefore, you may have to accept trade-offs regarding which comparisons to make (i.e., if you can make only one set of comparisons due to sample-size restrictions). Your team

---

[7] RTI International. (2009). *Early Grade Reading Assessment toolkit.* Prepared for the World Bank, Office of Human Development, under Contract No. 7141961. Research Triangle Park, North Carolina: RTI International. Available at https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=149. French and Spanish adaptations of the toolkit also are available on the project website.

should carefully think through the decision to compare different subgroups and discuss it with the Ministry of Education and other stakeholders, to ensure that you are using EGRA resources to obtain the data that you will find most useful. The challenge is to balance what is most important for your team to know and what you have enough time and money to do.

Some common categories for comparison follow.

Grade Level

As its name implies, the Early Grade Reading Assessment is designed to evaluate children in grades 1–3. Sometimes, the Ministry of Education would like to know if children's reading ability is progressing from one grade to the next, according to established benchmarks. In this case, you may want to test children in at least two grades (such as 1 and 3). However, if your team can only afford to assess students in one grade, grade 2 is recommended because children should generally be able to exhibit foundational reading skills after at least two years of instruction. (Moreover, you will likely not experience "floor effects," as is sometimes the case for first-grade children in developing countries. That is, even a simple test can be so difficult that a significant majority of the sampled children scores low or zero.) However, when choosing which grade level to include in your assessment, you should also consider your project goal and contextual factors, including language policy. For example, if the language of instruction changes in grade 4, you may want to assess children in grade 3, to determine how well the first language of instruction is supporting acquisition of literacy skills in another language.

Geographic Area

Your team will need to identify which geographic areas to include in the assessment and whether to compare outcomes across geographic areas. You may decide to include geographic comparisons (by region or between urban and rural areas) because of other evidence indicating a difference in learning achievement. Additionally, if the assessment is being conducted to assess a particular program, you will need to make sure the geographic area sampled includes schools participating in the program.

If you wish to *compare* urban and rural populations or different regions, your team will need to increase your sample size or eliminate another point of comparison (i.e., school type) to ensure that there are enough students in each subsample of interest for statistical reliability. If you are not planning to seek comparisons, a grade-level sample could test students in both urban and rural areas or in multiple regions.

Institution Type

Your team should also determine if your assessment will focus on children attending one type of educational institution (i.e., government primary schools) or include children attending multiple types of institutions (i.e., schools operated by governmental, nongovernmental, and religious institutions). Each additional school type will require your team to increase the sample size, so there should be a compelling reason for testing children in different school types.

> # LESSON LEARNED:
> ## How <u>Not</u> to Use EGRA
>
> While EGRA can be used for many different purposes, there are also some situations in which its use is not appropriate. For example, EGRA data collected for project evaluation cannot also be expected to serve as a system-level snapshot of reading. This is because the snapshot will necessitate a random sample, usually across a large geographic area such as a region or country, whereas a project evaluation—by design—should be conducted in schools that are supposed to be affected by the project activities.
>
> EGRA also was not designed to be used for "high stakes" assessment, to penalize schools, or to evaluate individual teacher performance. It should never be associated with sanctions and the results should NOT be used to determine if students should pass or fail a grade.

Gender/Group Membership

Your team may also decide to compare subsets of the sample population, such as male and female students or perhaps students from different ethno-linguistic backgrounds. However, to determine statistically significant differences and to be able to make comparative statements about gender and group membership, you will need to ensure adequate sampling in terms of size and methods. To make comparisons between boys and girls, some teams use simple random sampling (described below) while others choose to incorporate gender into their sampling methodology by selecting equal numbers of male and female students from each classroom or grade within a school. If your team opts to use this "50–50" approach, your statistician will need to advise how to conduct the data analysis appropriately to ensure that the results are representative of the larger population from which you drew the sample. (This process is referred to as "weighting," and is explained in Chapter 5.)

Ethical Approval for EGRA Surveys

Because you will be working with human subjects, you may be required to have your EGRA survey approved by an Institutional Review Board (IRB) or ethics committee formally designated to approve, monitor, and review research to protect the rights and welfare of the participants. Although EGRA's original designers worked to ensure that its overall use would be consistent with ethical standards in research, the relevant authorities in each country must review and approve the research design of each assessment individually.

Even if you find that formal IRB approval is not required, it is recommended that your team take measures to ensure the rights of your subjects are respected. This includes training assessors in how to obtain informed consent, establishing procedures for gathering personal identifying data and storing it securely, converting identification data into anonymous codes, and appropriately disposing of identifying data once the data analysis is complete. You can include a consent statement and checkbox on the cover page of each EGRA instrument to ensure that you obtain oral informed consent from every participant. See **Annex 2: EGRA Sample Instrument** for an example of a consent script.

Receiving IRB approval for your instrument and testing procedure is especially important if you plan to publish your results. Some organizations that sponsor EGRA surveys have an internal IRB, and others may have to collaborate with a university or form an ad hoc review board. If necessary your team should also consult with your organization's legal advisors to determine whether they have existing written consent forms or special protocols for working with children. Also a country may have a national IRB for research projects. A list of registered IRBs and international protections for more than 100 countries can be found on the U.S. Department of Health and Human Services' website at http://www.hhs.gov/ohrp/international/intlcompilation/intlcompilation.html.

Determining Your EGRA Sample Size

EGRA surveys are sample-based rather than census-based, which makes them more cost-effective—an advantage given resource constraints in developing countries. Stated in another way, for financial reasons, testing the entire population of students in the early grades in a specific country is not feasible. Therefore, to be more efficient, EGRA uses sample survey methods in which a portion of the population is chosen to represent the population. Much like tasting a pot of soup, if the soup is well stirred and the flavors evenly mixed, you will need only one small spoonful to know what the whole soup tastes like. Similarly, a well-designed sample can give a clear representation of the entire country. Thus, your team will need to select a sample: a certain number of children in early grades who *represent* your target student population in early grades in your country of assessment. Your target population might be the total student population in the country or the target population of a project for an impact evaluation.

Selecting an appropriate sample size is of the utmost importance to ensure the accuracy of the results. Your team will need to consult with your statistician or survey specialist to make sure you use methods that will generate reliable results. The number of EGRA results obtained from the sample will affect the reliability of the inferences you make from the data collected.[8] Often, during the initial planning stage, EGRA teams want to compare numerous populations. However, each comparison significantly increases the sample size. Along with the categories of comparison, you will need to take into account several other statistical factors before you can determine the best sample size. More detailed information on those factors and other aspects of sampling can be found in the *Early Grade Reading Assessment toolkit*. Also, **Annex 3: Relevant EGRA Sampling Principles** provides an overview of variability, researcher-determined confidence interval width, researcher-determined confidence level, and design effect.

Boxes 1.3 and 1.4 present illustrative sampling scenarios.

LESSON LEARNED:

Each Point of Comparison Will Require an Increase in Sample Size

During pre-implementation planning, your EGRA team should discuss which comparisons you seek to make with your data. The more comparisons you wish to make, the larger the required sample size because a sample of approximately 500 students is necessary for each population your team would like to survey. For example, to compare grades 2 and 3, your team would need to sample 500 second graders and 500 third graders.

This estimate of 500 is based on an analysis of several EGRA surveys. It represents the minimum number of students for obtaining the level of precision necessary for reporting results with a 95% two-sided confidence interval of ±7 on the oral reading fluency subtask, assuming a certain level of design effect. (Note that these calculations do not involve population size, which does not appear in the formula for calculating the variance. The sampling variance is based exclusively on the variation among the sample elements.)

A sample size of 500 should furthermore allow you to make comparisons between groups, although it does not guarantee that you will be able to determine statistically significant differences between comparison groups (or populations). This will depend on the variability of EGRA scores in the sample as well as the size of the difference.

Be sure to consult an expert in statistics or survey design regarding your sample.

1.3 SCENARIO A: GRADE 2 COMPARED BY REGION AND SCHOOL TYPE

In this scenario, your team uses two points of comparison, **region** and **school type.**

	School type 1	School type 2	Total
Region 1	500	500	1000
Region 2	500	500	1000
Total	1000	100	**2000**

If you wanted to survey children in an additional grade to determine whether children were progressing in their reading ability, the sample size would double, to 4,000, since you also would need to make each comparison (regional and school type) for grade 4 students. To stay within a sample size of 2,000, you might therefore decide to eliminate another point of comparison and not compare the performance of students in different schools. If you needed to scale back the size of your sample even more, you might decide to compare only school types, decreasing your sample size to 1,000 (500 per region); or to compare only regions (which would also lead to a sample size of 1,000—500 per school type).

---

[8] Mendenhall, W., Beaver, R., & Beaver, B. (2008). *Introduction to probability and statistics* (13th ed.). New York: Duxbury Press.

1.4 SCENARIO B: GRADE 2 AND GRADE 4 COMPARED IN EACH REGION

In this scenario, your team uses two points of comparison: **region** and **grade level.**

Area	Grade 2	Grade 4	Total
Region 1	500	500	1000
Region 2	500	500	1000
Total	1000	100	**2000**

Alternatively, you might decide that it was important to compare the performance of students in **urban** and **rural** areas. Consequently, you would need to decide whether you would eliminate one of the other comparisons, or expand your sample size to accommodate a third point of comparison.

Balancing Comparisons with Sampling Considerations

When developing the budget (see section at the end of this chapter), you may realize that it is not feasible to sample all the children necessary for the desired number of comparisons. Suppose that your team leader has determined the maximum funds to administer EGRA, and from those figures you know that your EGRA sample can be no larger than 2,000 students due to budget constraints. Given this restriction, your team will need to prioritize and identify which comparisons are most valuable and relevant to the purpose of your EGRA.

NOTE: The two scenarios in Boxes 1.3 and 1.4 above may not be "equal" in terms of the cost/time, since comparing children in two grades may be less costly if the children are at the same school. However, if you wanted to compare school types, your data collection teams would need to go to additional schools to conduct the same number of assessments, possibly increasing transportation costs. Therefore, Scenario A would probably be more expensive and/or time consuming.

Choosing Sampling Methods

While a sample size determines how many students will be chosen for assessment, a sampling plan determines how they will be chosen. Sampling can be done multiple ways, and the method selected may be based on constraints, such as distance between schools, budget limitations, and time restraints. In any survey, for researchers to be able to make reliable generalizations about an entire population in a country, they must select a sample that represents the entire population in terms of demographics such as number of people in a region, languages, or gender.

Thus, for your EGRA survey, your team will want to be able to make reasonable inferences about the students in the entire country from information in the data set for your sample.[9] By calculating and disclosing the sample error or the difference between your population parameter and the sample statistic used, your team can ensure there is statistical rigor behind your results. A reasonable sampling error will ensure that the conclusions you draw from your EGRA results can inform decisions about interventions and policies for the entire sample population. In order to calculate the size of your sample error and give your EGRA results more credibility, your team will need to use a probability sampling method, which allows statisticians to calculate the likelihood of each student being selected for assessment. Several different types of probability sampling methods are available to your EGRA team. **Annex 3: Relevant**

---

[9] Mendenhall, Beaver, & Beaver (2008); see earlier footnote.

EGRA Sampling Principles describes simple random sampling, stratified random sampling, cluster sampling, and multistage sampling.

In some cases, an EGRA team may choose not to use a probability sampling method. Purposeful sampling, which applies certain criteria to target particular geographic areas or schools, can be useful particularly if the EGRA survey is being used as part of a project evaluation. However, even with purposeful sampling, there can be a random sampling component. For example, your team might purposefully select the poorest districts or the poorest schools for an intervention, but then randomly select the schools from that purposefully selected population to determine where to conduct the EGRA survey as part of an impact evaluation.

When choosing a sampling method, you will need to consider your sample size and then decide how many students to assess at each school and how many schools to select. For statistical rigor, it is usually preferred to sample students at a greater number of schools than to sample a greater number of students at each school. (This is because students are more likely to differ between schools than within a school.) However, your team will need to make a decision that takes into account class size, budget constraints, and time limitations. For example, if the distance between schools is quite large, then it is usually more efficient to test a larger number of students at a lesser number of schools. Yet, if your team knows that class sizes tend to be small, as is sometimes the case in schools in rural areas, you will need to assess a fewer number of students at a larger number of schools.

As noted above, there might be occasions when an EGRA team would want to do purposeful sampling. However, the preference is usually for a nonbiased probability sample in which every unit of a population (i.e., school or student) must have an equal chance of being selected and the selection of one unit should not influence the selection of another unit. When selecting sample schools, consult with a statistician or survey specialist who can apply relevant methods such as stratification or clustering.

When you are randomly selecting a sample of schools from the sampling frame, a mechanism such as the RAND function in Microsoft Excel 2007 (see *Box 1.5*) can help by generating a series of random numbers. To start, your EGRA team will need to obtain or create an electronic list of all the schools in the sampling frame. Detailed steps for selecting a random sample are below.

Important note on sampling schools: Your team will need to determine which schools will be participating in your EGRA survey well in advance of data collection. This is because it can take time to verify the existence of schools, plot their location, and arrange the necessary logistics.

1.5 EXAMPLE OF RANDOM SCHOOL SELECTION IN EXCEL (VERSION 2007)

1. List all the schools in your sampling frame in a column in Excel.

2. In the next column, type "=RAND()" (without the quotes) next to the first school.

3. Double-click the bottom right corner of the cell (here, Cell B2) to assign all schools a random number between 0 and 1.

4. Column B is dynamic, so sorting by these numbers is not possible, as they will change when sorted, so we must copy the values into Column C. Highlight and then copy the values in Column B .

5. Next, paste the Column B figures into Column C as static values. To do this, right click on Cell C1 and select "Paste Special" from the menu.

6. Select the "Values" radio button from the menu that appears. Click "OK."

7. Highlight the entire table by clicking on the triangle to the left of Column A's header. On the Data Menu, click "Sort" and tell Excel to sort by Column C. You will need to ensure that the "My data has headers" box is checked in the *Sort* window.

8. Select the first *n* schools as your sample.

Note: If you are using cluster sampling strategy and stratified sampling strategy, your team will have to repeat this process for each subgroup.

Developing a Work Plan

Developing a work plan is essential during the pre-implementation planning process, as it will serve as a road map throughout EGRA development and implementation, especially given the recommendation to limit data collection for the main survey to two to three weeks. A work plan outlines when each activity will happen and who is responsible for implementation. Prior to implementation, your EGRA team will need to develop a work plan outlining the time line for all stages of the EGRA development and implementation, including preparation, adaptation workshop, pretesting during the workshop, pilot survey and revisions, assessor training, survey, data entry, and data analysis.

While the activities in an EGRA work plan will be fairly consistent across countries, the time frame will vary according to your country context. When drafting your work plan, consider all the stages of the EGRA survey, from development to post-dissemination activities.

The first step in drafting a work plan is to identify when the EGRA survey needs to be conducted. For example, it is not feasible to assess students when schools are closed, and you should avoid conducting assessments close to important holidays and during certain seasons (e.g., monsoon).

Testing at the beginning of the school year means you are measuring learning outcomes from the previous year. Testing early in the year is often appropriate for impact evaluation or necessary given project time constraints. However, remember that students experience "learning loss," or forget some of what they learned during school breaks, which could lead to results that are not as good as if children had been tested at the end of the year.

Testing at the end of the school year allows you to measure learning outcomes from the current academic year. When testing at the end of the year, your EGRA team will need to make sure that the EGRA survey does not conflict with other school examinations. Your team will need to make the decision that best suits your purpose, context, and constraints.

Once you have identified the time period during which you will conduct the EGRA survey, you can "work backwards in time" to identify when all the tasks leading up to the survey will need to be accomplished.

The duration or length of the assessment stage depends primarily on three factors:

- Sample size;

- Number of assessors hired;

- Accessibility of schools (since this affects travel time).

You will also need to determine a reasonable number of students an assessor can assess in one day, given your country context and research design. With this information, your team can adjust the number of assessors on the team up or down to contract or expand the assessment time frame.

You will need to estimate the time frame for the post-assessment activities based on your particular circumstances and resources. For example, data cleaning and analysis can take a few days or a few months. When the quality of the data collection and data entry is good, the cleaning process, or the process of reconciling any issues or incongruence in the data (see Chapter 5), is faster and easier. Keep in mind that you cannot begin the analysis until your team has cleaned the data and appropriately adjusted the results to reflect the general population (if necessary). Report preparation often takes a month, depending on whether the author is focusing solely on the task or juggling multiple responsibilities.

Annex 4: Simple Work Plan Example and **Annex 5: Detailed Work Plan Example** can help guide your team's work plan development.

Preparing a Budget

In order to ensure financial feasibility of your EGRA survey, your team leader will need to prepare a budget specific to your research design and country context. To a large extent, your budget will be guided by the size of your sample, which affects the number of assessors you need to train (and in some cases pay), the amount of travel required for assessors to reach the schools, and the amount of supplies needed for the assessment.

However, your budget encompasses much more than the cost of the actual assessment. You must account for the staff salaries for the entire project life cycle as well as pre- and post-assessment activities (i.e., the adaptation workshops and dissemination of results). Not budgeting or underestimating costs for all the phases and aspects of the EGRA survey will affect the quality of the survey and the ability of your team to capture reliable data.

> ## LESSON LEARNED:
> ### Account for Travel Expenses
>
> The cost of assessor travel to schools will be a significant part of your budget. Therefore, it is important to accurately budget the time and money required to reach schools. Furthermore, some schools may not be reachable by motorized vehicles and will require assessment team members to use alternative transport. For example, in the Atlantic coast of Nicaragua, assessors had to travel by both paddleboats and horseback.
>
> In the Democratic Republic of the Congo, where there is limited infrastructure, assessors traveled by plane, car, canoe, and bicycle. It is important to understand how such transport challenges affect your assessment time frame and overall budget.

Annex 6: Guidance on Budget Inputs is a tool that can guide your team leader's preparation of a detailed budget and help estimate the total expected cost of implementing your specific EGRA survey, on the basis of your team's research design, work plan, and staffing.

First, the team leader should determine the level of effort, or working days, needed for the various tasks, and who will be doing them. Information on the expected salaries or daily wages for all staff will be necessary. Second, determine costs for specific activities (i.e., adaptation workshop and administrator training) and be sure to include all related costs such as transport, workshop supplies, venue, food, and accommodations. Thirdly, determine costs for data collection, including transport, lodging, and materials. Last, determine costs for entering and analyzing data as well as disseminating the results.

TIP: If you find during the planning stages that your estimated costs are exceeding your available budget, your team may need to adapt the research design. This may include decreasing the number of comparisons between populations, reducing the number of schools in which you test, modifying the sampling methodology, or reducing the number of EGRA subtasks.

CHAPTER 1: CHECKLIST

At the end of the EGRA planning process, your team should achieve the following:

☐ EGRA survey design determined according to your team's purpose, budget, and time line

☐ Relevant stakeholders understand the purpose of your team's EGRA survey, support the process in your country, and are prepared to participate if appropriate

☐ Appropriate sample size and methodology determined in consultation with a qualified statistician

☐ Key EGRA team members with desired qualifications hired according to context-specific terms of reference

☐ Work plan developed according to your survey design, sample, country context, and time line

☐ Budget prepared according to your survey design, sample, and country context

Chapter 2: Instrument Adaptation

Regardless of the type or scale of the EGRA you wish to implement, each instrument needs to be adapted. Since each context and language is different, your EGRA team cannot simply *translate* the test or its items from one language to another, as this may result in exercises that are inappropriate for your student population. Only by properly adapting the tests can your team be sure that the results are valid and really reflect how children are learning to read.

When conducting an EGRA survey, even in a language of assessment for which an EGRA instrument has previously been prepared, your team must ensure that the test is culturally appropriate and corresponds with the grade-level material students are expected to be able to read in the country of assessment. Therefore, adapting the test means that each test is created from scratch based on the rules and structures of the language of assessment as used locally and on the vocabulary in the relevant local reading materials.

As part of designing your survey, your team—led by the language specialist—will need to prepare a draft instrument for each language of assessment. You will prepare several iterations based on feedback from an adaptation workshop (described below and in the annexes), pretesting in a field environment while the workshop is in progress, and a pilot survey. Your team may also decide to supplement your EGRA instrument by preparing other research tools such as questionnaires, classroom observation checklists, or interview protocols. Furthermore, your EGRA team should use the adaptation process as an opportunity to involve Ministry of Education officials and other stakeholders, clarify the purpose and theoretical framework of the EGRA instrument, and build local support and ownership for the assessment and forthcoming results.

This chapter presents guidance on:

- The roles and responsibilities of team members regarding instrument adaptation

- How to select relevant subtasks for your instrument

- How to draft an EGRA instrument for multiple languages

- How to select or design supplementary instruments, such as questionnaires

- Pre-workshop preparations such as staffing, training materials, and logistics

- How to design and implement a context-specific agenda for the adaptation workshop

- How to pilot and revise your EGRA instrument

Key Roles in Adaptation

The **team leader** will have overall responsibility for planning and managing the adaptation workshop and will be your organization's key representative during the workshop. The team leader will oversee the work of the project staff and consultants, contribute to presentations, and help facilitate workshop discussion. The team leader should also be prepared to provide technical support regarding the adaptation of instruments. However, in some circumstances where the team leader does not have appropriate technical knowledge, the team leader may have to rely on consultants.

The **language specialist** will advise on general language issues and should participate actively throughout the implementation process. Even before the adaptation workshop, the language specialist may assist with creating letter- and word-frequency lists (i.e., ordering of letters and words based on how often they occur in an "average" passage of printed text), as well as drafting brief stories and their accompanying reading and listening comprehension questions, both of which are described in detail below. Local language specialists often help decide which subtasks to include and review items for appropriateness. **Chapter 1** recommends having a translator on the EGRA team, but if your team has not hired a translator, the language specialist may translate the assessor instructions and any other study materials, such as questionnaires.

Before the adaptation workshop, the **reading specialist** will work with the language specialist and the team leader to make decisions about which EGRA subtasks are most appropriate for a given language and context. During the workshop, this person will serve as the overall facilitator and will make presentations on key technical issues regarding the importance of early grade reading, why EGRA is used to measure reading skills, EGRA subtasks, and the test administration. Furthermore, the reading specialist, aided by the language specialist as needed, will facilitate the development of the reading and listening comprehension passages and questions.

Project staff within your organization or an external **subcontractor** will manage the logistics of the workshop, including tasks related to participant invitations, travel, and accommodations; venue preparation and meals; purchase and preparation of materials; and any other logistical issues that arise. If you will be relying on project staff, ensure close coordination with other support staff within your organization regarding logistics, operations, and finance.

The **workshop participants** are usually Ministry of Education staff with responsibility for primary education planning, policy, curriculum, teacher training, and/or evaluation; other project and ministry staff who will be a part of the EGRA survey; interested donor representatives (e.g., from USAID); and people who have technical background and experience that could make them potential hires as field supervisors. As many as possible of the participants should also speak and read the language(s) in which you are testing.

TIP: If your team is facing budget constraints, you can hire fewer dedicated staff for the EGRA adaptation process and arrange a less formal meeting to review the draft instrument in lieu of a workshop. However, regardless of the type and scale of your EGRA survey, a process of drafting, revision, and piloting is required. Also, to ensure instrument validity, your team must consult with local language specialists and a reading expert such a professor or a project staff member who has an advanced, graduate-level understanding of reading assessment.

Steps in Developing the EGRA Instrument

Multiple steps are needed to adapt the EGRA instrument to a new language of assessment and the local context. Before the adaptation workshop, your team will need to spend three to four weeks hiring any language, reading, and statistics consultants needed to supplement your team's technical knowledge; collecting local learning materials; preparing word lists based on the materials; using the word lists to draft your instrument; and arranging the workshop. During the workshop, the invited participants will review the instruments as a group and revise them based on their knowledge. They will also participate in informal pretesting with a few students during the workshop period and incorporate useful findings from that activity into the instrument. At the end of the adaptation workshop, you will have a draft instrument that is ready to be piloted to ensure that it is a valid test of children's reading skills. The team will collect observations and feedback from the pilot survey and complete another round of revisions to the

instrument. The post-pilot revision should produce the final instrument to be used in the assessment training and the main EGRA survey. ***Box 2.1*** illustrates this sequence of steps.

2.1 THE EGRA INSTRUMENT-DEVELOPMENT PROCESS

Before the adaptation workshop → Draft EGRA instruments for all languages

During the adaptation workshop → Review and pretest instruments

After the adaptation workshop → Pilot and revise instruments
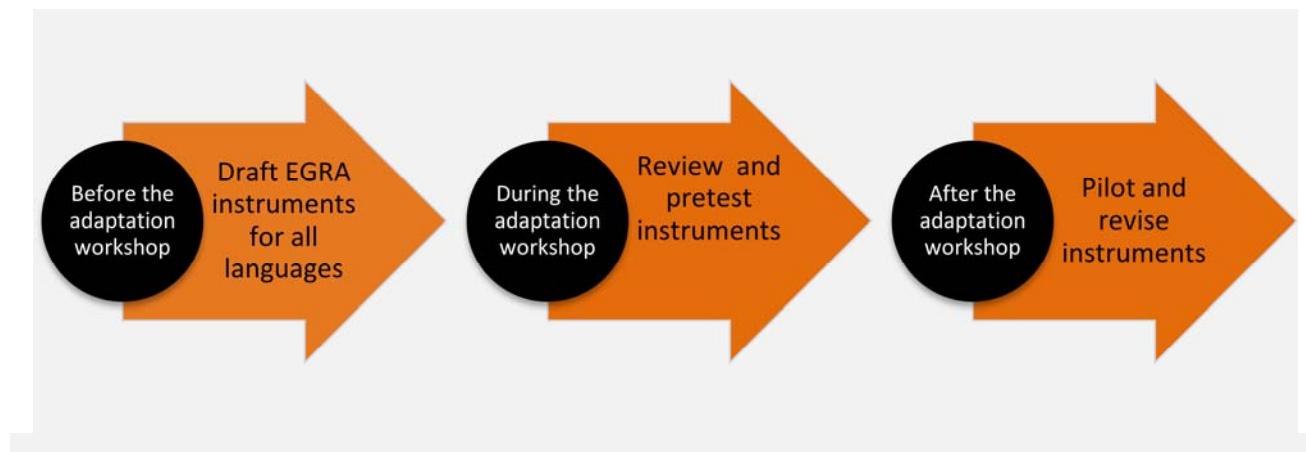
Select Relevant EGRA Subtasks

Within the EGRA instrument there are a number of standard subtasks (see ***Table 2.1***), some of which are language-specific. Before the workshop, your team leader, reading specialist, and language specialist should review the full range of potential EGRA subtasks. The reading and language specialists should give guidance on the appropriateness of each item and ways in which its construction might be affected by the language properties. In some cases, they will choose to add or delete subtasks to fit the language and context.

During the workshop pretesting, your team may discover that certain subtasks need to be added or removed. For example, if you are testing a population with characteristics similar to your sample population, and all students score very high on the letter identification subtask (i.e., producing

LESSON LEARNED:

Experts Agree on Four Essential Subtasks

Given the lack of resources in developing countries, learning achievements are often low in the early grades. On the basis of current research, a consensus of reading experts decided that four subtasks are the minimum needed to cover the essential components of reading in most languages. The four core subtasks required in every EGRA instrument for grades 1–4 are:

- Letter identification: names and/or sounds
- Nonword reading
- Oral reading fluency with comprehension
- Listening comprehension.

When resource constraints limit the number of subtasks in an instrument, testing students' ability to read nonwords is more essential than testing familiar word reading. This is because the nonword subtask tests decoding skills, or the ability to "sound out" words that learners have not memorized. The best way to do this is to provide a list of nonsense or invented words that conform to the rules of the language, but that a child would not have encountered previously. If you only test familiar words used very frequently in classroom reading materials, you will not be testing students' ability to decode since they may have memorized the familiar words.

For children in grades 2 and above, truncated assessments will need to place more emphasis on comprehension and less on basic skills such as letter name knowledge.

"ceiling effects"), your team might decide to remove it from your instrument. Your team should reach consensus on the final composition of subtasks after analyzing the official pilot results.

Table 2.1: Review of EGRA Subtasks		
Subtask	**Early reading skill**	**Skill demonstrated by student's ability to:**
Concepts about print	Knowledge of print	Indicate text direction, concept of word, or other basic knowledge of print
Phonemic awareness: identification of onset/rime sounds; phoneme segmentation	Phonemic awareness	Identify initial or final sounds of words or segment words into phonemes (words are read aloud to student by assessor)
Oral vocabulary	Knowledge of Vocabulary	Point to parts of the body or objects in the room to indicate understanding of basic oral vocabulary
Listening comprehension	Comprehension	Respond correctly to literal and inferential questions about a text read to the student
Letter identification: names and/or sounds		
Letter name	Letter recognition	Provide the *name* of upper- and lowercase letters presented in random order
Letter sound	Letter-sound correspondence	Provide the *sound* of upper- and lowercase letters presented in random order
Syllable reading	Alphabetic principle	Identify legal syllables in random order
Nonword reading	Alphabetic principle	Use knowledge of letter sound correspondence to read nonwords (also known as nonsense words)
Familiar word reading	Automatic word reading	Read simple and common words
Oral reading fluency (paragraph reading) with comprehension	Oral reading fluency and comprehension	Read a narrative or informational text with accuracy, little effort, and at a sufficient rate and respond to literal and inferential questions about the text they have read
Dictation	Alphabetic principle	Use knowledge of letter sound correspondence to write a sentence that was read by the assessor (grammar can be assessed but should <u>not</u> be a focus)

Prepare Draft Instrument(s)

As noted earlier, ideally your EGRA team should prepare the draft instrument(s) before the workshop, to make the best possible use of the participants' time and to help minimize intractable disagreements among them. Generally, teams need one to two weeks to prepare a complete draft instrument. At a minimum, your team should take a few days to prepare letter- and word-frequency lists, which the workshop participants will need during the drafting process.

Letter- and Word-Frequency Lists: Your team's EGRA instrument should be based on actual samples of texts students are expected to be able to read. For this reason, items for the subtasks related to letter and word reading should not be chosen randomly but rather should be based on the frequency of letters and words in the grade-appropriate classroom reading materials. team will need to create letter- and word-frequency lists for each language of assessment.

First, your team will need to obtain copies of grade-appropriate classroom reading materials. If your team's EGRA instrument is being used to test students at multiple grade levels, it is fine to only use learning materials from a single grade. For example, you can use grade 1 materials in an EGRA instrument for first and second graders, and grade 2 materials to test second, third, and fourth graders. Often, the words that are frequent are also simple words suitable for the early primary grades. Note that if you use words typical for grade 2, when you later report on results for students in higher grades, you will always need to remind readers that the content was considered to be at a lower level than what students should have been able to master.

> # LESSON LEARNED:
>
> ## Be Resourceful in Identifying Learning Materials
>
> Before preparing letter- and word-frequency lists, your team will need to obtain copies of classroom learning materials for the relevant grades and languages of assessment. These classroom reading materials may be official reading textbooks, readers, or books designated by the curriculum.
>
> When there are no official classroom reading materials, your team will need to obtain copies of the books teachers are actually using to instruct your sample population. If no materials at all are being used in the classrooms, then your team might use some other reading material available in that language that is at an early primary level; or you may be able to obtain the materials that are *supposed* to be used in schools. Ultimately, your team should base the letter- and word-frequency lists on a written text in the language(s) of assessment that students in the relevant grade level(s) are expected to be able to read.

Second, since it is rare for electronic versions of classroom reading materials to be available, your team will need to assign someone to prepare text samples by digitizing a sample of pages of materials. Usually, a typist who knows the language is best suited to the task of entering into a computer a sample of 20–30 pages of the reading materials, excluding the directions. Be sure to use fonts that have a full character set for the alphabet of your language(s) of assessment.

Third, using the electronic sample text and Microsoft Excel, your team should create letter and word frequency lists, including a list of the 50 most commonly used words. For more guidance, please refer to **Annex 7: How to Prepare Letter- and Word-Frequency Lists.**

Last, your team can then use these lists to create the items for the letter identification (names and sounds) and familiar word reading subtasks, as well as for the nonword reading subtask if you have included these in your instrument.

Stories and Comprehension Questions: Most EGRA instruments include two key subtasks: oral reading fluency with comprehension and listening comprehension. To produce an adapted instrument that contains these subtasks, your team will need to prepare two or more short stories (see next paragraph) with corresponding comprehension questions for each language of assessment. The reading specialist and in-country partners—such as teachers, curriculum experts, or other partners in the country or region where you will be conducting the EGRA—will lead this effort.

The story for the oral reading fluency subtask should be close to 60 grade-level-appropriate words; the story for the listening comprehension subtask should be around 30 words. Since the listening comprehension text is read aloud to the students, the listening comprehension story should be short to avoid memory overload issues with the tested students. The stories can have longer words than the reading passage, but the vocabulary still needs to be reviewed for appropriateness.

Both passages should contain the elements of a story in terms of a character, context, beginning, obstacle or problem, and a resolution. The stories should be appropriate and relevant for children and, while they should contain familiar events, the stories should not remind a child of stories or legends they already know since this could affect their performance on the comprehension questions. For more guidance on preparing oral reading fluency stories and relevant comprehension questions, please refer to **Annex 8: Criteria for Oral Reading Fluency and Comprehension Stories.** The sample principles apply to preparing the text and questions for the listening comprehension subtask.

As noted earlier, the preferable approach to this subtask is to have the team's reading specialist ask teachers, curriculum experts, or other local partners to draft a grade-appropriate story. This can take place either before or during the workshop. If your team is able to prepare draft stories and questions ahead of time, then during the workshop, participants can review the stories and confirm whether the vocabulary used is appropriate for both local usage and the grade level to be tested. If you have not prepared stories in advance, you can ask the workshop participants to draft both the stories and the comprehension questions. If you use this approach, however, be sure to allot sufficient time—a half to a whole day—for such a session in the workshop.

The EGRA team member who is advising on this process should continually emphasize that the story should have a beginning, a middle with a "problem," and an ending with a resolution; this concept often eludes first-time EGRA story writers.

The reading and listening comprehension questions need to be varied to include one or two inferential questions and the rest literal (or "directly in the text") questions. It helps to show the writers examples of these different types of questions (see **Annex 8**).

TIP: It is recommended that your team draft preliminary stories and the accompanying comprehension questions before the workshop. In this way, you can ensure the stories have enough material to yield the type of simple questions your instrument will need to ask.

Prepare Relevant Supplementary Instruments

Many EGRA teams choose to develop supplementary research instruments to be administered alongside the EGRA instrument. The additional data make it possible to identify correlations between students' reading abilities and pupil characteristics, their home environments, teachers, and schools. A pupil questionnaire, which includes questions to indicate students' socioeconomic status, parental literacy, and reading habits, is standard. Depending on the purpose of your EGRA as well as your budget, other possible instruments are[10]:

- classroom observation tool

- teacher questionnaire

- principal questionnaire

- parent questionnaire.

---

[10] Specific country versions of supplementary instruments such as these can be found on the EdData II project website, www.eddataglobal.org.

Adding supplementary instruments to your EGRA survey will increase the responsibilities of the data collection team. Thus, you will need to carefully determine which instruments are important enough to justify the extra time and resources. For example, if you decide that your stakeholders would benefit greatly from understanding general school characteristics, school administration, and the roles of a school principal as well as their training and education, then a principal questionnaire or interviews with principals may be appropriate. Or teacher interviews or a questionnaire for teachers may be suitable if your team is interested in obtaining data on the following topics:

- teacher demographics

- teacher qualifications (including literacy-related training)

- teacher perceptions about language of instruction

- teacher beliefs about reading

- self-reported reading instruction practices.

School observation checklists can be an excellent way to better understand actual reading instruction practices. Also, parent interviews, while resource-intensive, may be appropriate, especially if your team is considering a project intervention focused on parents. Sample questionnaires regarding school management and organizational practices are available as part of another USAID-supported instrument: the Snapshot of School Management Effectiveness (SSME). Additional information about SSME is available from the EdData II project website, at www.eddataglobal.org.

To develop all supplementary instruments, your team should set up a process for brainstorming, review, and adaptation to your context. It is also recommended to consult with stakeholders, such as MOE officials, to obtain feedback and build interest in the data collected. In addition, have all the instruments translated—if needed—into the target language(s) for the assessment; and plan on taking time to review all the additional instruments at some point during the adaptation workshop or in a smaller, less formal meeting. Finally, plan to pilot test the supplementary instruments along with the EGRA instrument to determine how much time they take to administer and to revise questions as appropriate.

Pre-Workshop Preparations

Prepare Presentations

During the workshop, your team will need to make teaching presentations to the participants about topics such as

- overview of early grade reading and its importance

- purpose of your EGRA survey

- introduction to orthography and linguistics of the languages in which you will be testing

LESSON LEARNED:

Encourage Governments to See EGRA Scores as a Resource

Experience has shown that government officials are sometimes surprised at how students in their country perform on early grade reading assessments. It is not unusual to have sizable number of first graders struggling to identify even a few letters in the alphabet. Promoting buy-in during the adaptation phase may help the government accept the validity of the scores.

Also, by ensuring that ministry officials participate in the adaptation process, your team can help position EGRA as a helpful diagnostic tool rather than an embarrassment. Explain how the results can be used to help improve reading instruction and learning outcomes.

- overview of EGRA subtasks

- guidance on adapting word lists and reading passages

- preliminary results from field testing (presentation prepared after the pretest).

Your team should work together to prepare all the presentations, completing them in advance. Visual presentations can be particularly useful when you are giving participants the overviews of early grade reading and the different EGRA subtasks. Later, projecting the stories that are developed onto a screen can facilitate whole-group editing.

It is a good idea to have electronic versions of the presentations for participants to copy onto USB flash drives or other media. You should also supply paper copies as handouts for participants to refer to during and after the workshop.

Arrange Logistics

Participants in the adaptation workshop may include Ministry of Education personnel and representatives of multiple other organizations. Coordinating schedules and logistics for all of these individuals can be challenging, but a well-organized workshop is crucial to making a good first impression among participants who are in a position to offer short- or long-term support for your EGRA survey. Some tips are:

- Be prepared to reimburse participants promptly for traveling expenses.

- Print paper copies of the draft instruments for the workshop.

- After the participants have revised the instruments, be prepared to print paper copies for the pretesting in the field.

- Listen carefully to any and all feedback from participants. It is important for relationship building that everyone feels like they are heard even if their suggestions are not taken up.

- If possible, have a project staff member in the workshop at all times dedicated solely to logistics, such as arrangements for food, accommodations of participants, and any last-minute printing of documents.

Make Pretesting Arrangements

Once the draft instrument is complete, your team will need to pretest it in one or two schools with students who are as similar as possible to the population you will be testing, given your budget and time constraints. For this pretest, each workshop participant will test two to three students to see how the *instrument* is performing at this point. This will tell the group if there are any major issues with the test that need to be changed before a formal pilot. If ministry staff are involved in your survey, the pretest can also help them understand more clearly how the test works, as well as yielding anecdotal—but still powerful—information on what students know about reading.

Your EGRA team will need to make arrangements for visiting one to two schools, depending on the size of the group of trainees and number of students in each school.

Although you can select the participating pretest schools for convenience rather than choosing them randomly, your team will need to secure the necessary permissions to carry out the pretest at the schools from the Ministry of Education *ahead of the workshop*.

In addition, your team will need to have procured all materials for basic assessor kits (timer or stopwatch, clipboard, pen or pencil, and copies of instruments and forms) and assembled them for the pretesting activity.

Hold an EGRA Team Meeting

Ideally, the reading specialist and language specialist should communicate before the workshop to discuss the workshop sessions, presentations, and draft instrument(s). This communication ideally takes place in an in-person or phone meeting, but it can be done through e-mail if logistics do not permit other options. It will allow the specialists to learn from each other and present a more unified presence during the workshop.

The Adaptation Workshop

Even if your team has prepared a draft instrument ahead of time, experience has shown that the optimum duration for the adaptation workshop is one week (five business days). During the week, your attendees will need to learn a significant amount of background information about early grade reading, the EGRA instrument, and your survey; design or revise the EGRA instrument and any supplementary instruments; receive training in administering the instruments; carry out limited pretests; and revise the instruments based on the findings from the pretests. However, the length of your team workshop will depend partly on the number of languages, the number of subtasks in your instrument, and the appropriate protocol needed in each context.

Table 2.2 presents typical content for Days 1 through 5 of the adaptation workshop.

Table 2.2: Typical Sessions in an Adaptation Workshop	
Day 1: Sessions will include an overview of the theoretical framework of EGRA and importance of early grade reading. Your team may wish to invite presentations from a language specialist. The participants will learn what EGRA is and how it is being used for the particular project. Given the broader, lecture-focused nature of the introductory sessions, invite a larger audience to attend the first day in order to include higher-level officials who are unable to participate in the following four days of working sessions.	
Session	**Suggested Presenter**
Opening by ministry and/or donor *Welcome and Introductions* Introduce hosts, participants, and the purpose and scope of the planned EGRA survey.	Various, including team leader
Importance of education quality Explain why quality of education matters to Education for All (EFA) goals, Millennium Development Goals (MDGs) and national economic development.	Team leader or reading specialist
Why early grades? Why reading? Explain how reading skills affect learning in other subjects and why early intervention in reading is necessary to improve general learning outcomes—i.e., reading skills affect learning in other subjects. Refer to **Annex 1: Sample Introductory Presentation on EGRA** for guidance.	Reading specialist

Introduction to Language 1: Orthography and issues related to early reading Explain the structure of language and potential issues regarding letter-sound correspondence.	Language specialist
Optional: Introduction to Language 2: Orthography and issues related to early reading. For multilingual assessments, your team may need to provide an overview of each language of assessment.	Language specialist
Review of international literature on early grade reading Provide an overview of how children learn to read.	Reading specialist
Introduction to EGRA in the context of Country X Use available data to describe the regional and national context.	Team leader or reading specialist
Introduction to EGRA Subtasks Outline the subtasks included in your EGRA instrument.	Reading specialist
Optional: ***Discussion of mother tongue and local language learning*** Discuss how the different characteristics of various languages affect learning to read.	Reading specialist and/or language specialist
Inclusion of EGRA subtasks for this assessment Discuss and make final agreements on which EGRA subtasks to include.	EGRA team members

Day 2: The second day will include a detailed description of each subtask of the draft instrument, which will already have been prepared by the language and reading specialists. After discussing the subtasks, participants will learn how to develop reading and listening comprehension passages and questions.	
Session	**Suggested Presenter**
Review of EGRA in Country X Recap of previous day's main points and decisions.	Team leader
Detailed discussion of the EGRA tasks Explain the purpose of the selected subtasks and what needs to be adapted/prepared for each subtask.	Reading specialist
Language group work Review the draft of the adapted instruments. Draft stories and/or comprehension questions if this has not been done previously.	Reading specialist and language specialist
Language group(s) reports back Participants provide input and suggestions regarding additions and changes to the working draft of the EGRA instrument.	Reading specialist or other EGRA team member facilitates

TIP: If you are conducting an EGRA survey in more than one language, you can divide participants into groups, one for each language of assessment.

Day 3: Sessions will include a review and presentation of language group work. Your team will also prepare participants to pretest the draft instrument. This will include training them to administer each subtask.	
Session	**Suggested Presenter**
Review of language adaptation work Recap previous day's progress and distribute updated copy of draft instrument.	Reading expert and/or team leader
Training on task implementation Explain importance of consent and assessment procedures along with a demonstration.	Reading expert and/or team leader
Group practice in administering EGRA Participants practice instrument administration in whole group, small group, and pairs.	Reading expert and/or team leader facilitates
Instructions on field testing and logistics Explain the pretesting activity planned for the next day and ensure participants understand what is expected in terms of timing, responsibilities, and travel arrangements.	Team leader, reading specialist, and possibly project administrative assistant or subcontractor

Day 4: Workshop participants will pretest the instruments with a very small number of students in schools. This limited pretesting should help identify obvious problems with the draft instrument and also raise awareness about reading achievement in selected school. (Note: This pretest is NOT the same as the pilot, which is a more rigorous evaluation of the instrument once the instrument has been declared final and the assessors have been adequately trained.) You will follow the pretesting exercise with a discussion of preliminary findings. A member of your EGRA team will need to promptly revise the draft according to their feedback to remedy identified problems.	
Session	**Suggested Presenter**
Field testing of assessment in schools (language specific, if possible) Participants conduct trial assessments of 2–3 students at selected school(s) using draft instruments. Ensure there is a trained supervisor at each school.	Reading specialist and team leader supervise
Scoring subtasks in the pretest After the field testing, collect all the completed instruments so the data can be collated. Your team should not do item-level data entry. Instead, you will just determine a basic score for each subtask. As an estimate of time needed, scoring 50 students' completed instruments should take an hour or less. Someone from your EGRA team can enter the pretest results into Excel to give participants a "snapshot" of the results. **Annex 9: Basic EGRA Subtask Scoring** provides guidance on how to score the instruments from the pretest (for the most common EGRA subtasks).	Team leader
Discuss preliminary findings from field testing Collect participant observations and feedback regarding the process, the content of the subtasks, and students' performance.	Reading specialist and/or team leader facilitate

TIP: Common issues that arise during pretesting are inappropriate nonwords (nonsense words), irrelevant vocabulary, and confusing homographs (words that have different meanings when pronounced differently, such as "present" or "wind" in English).

Day 5: On the last day, the reading specialist or EGRA team leader presents the preliminary findings from pretest and participants agree on any changes to be made based on the findings. Participants may also review and discuss supplementary instruments and revise as necessary.	
Session	**Suggested Presenter**
Presentation of preliminary results from pilot testing Present nonscientific, basic results from the pretest.	Reading specialist
Preliminary agreement on protocols for improvement After breaking the participants into groups for discussion, have them regroup and make a list of suggested changes to the draft instrument and protocols. Assign responsibilities and deadlines as needed.	Team leader
Optional: ***Review supplementary research instruments*** The instructions in the instruments (e.g., questionnaires) should already have been translated into the relevant language(s). Review language or words used, to ensure the instruments are appropriate and context-specific.	Team leader
Wrap-up, conclusions and possible next steps Review decisions made and give the participants an overview of the next steps in the EGRA survey process.	Team leader

To see examples of two different EGRA teams' agendas for an adaptation workshop suited to their country context and survey design, refer to **Annex 10: Sample Agendas for Adaptation Workshops.** However, note that each adaptation workshop is context-specific, so you should not reuse these examples verbatim.

Piloting and Revising Your EGRA Instrument

Even though early grade reading assessments have been conducted in dozens of countries, every EGRA team should carry out a pilot test of its adapted instrument(s) before collecting data in the main survey (**Chapter 4: Data Collection** provides more details about the main survey). The pilot test will

- help to ensure the tool is accurately measuring what children know in the specific context and language(s) of assessment

- allow you to verify the validity and reliability of the instrument(s)

- give your EGRA team an opportunity to address technical issues before the cost-intensive data collection phase

- yield "lessons learned" regarding the entire survey process, which will help you to improve the full data collection

- produce results that are helpful for intermediate reporting and feedback to the ministry.

Your team should plan to conduct the pilot survey after the adaptation workshop and several weeks before to the main survey. This schedule will give you time to review the pilot results, adjust the

instrument based on results, and then train all the assessors on the final instruments. (If the pilot were to take place after the training and you found that you needed to modify the instrument, most likely you would not have the time or resources to retrain the assessors. Their unfamiliarity with the test content could seriously affect the results.)

During the pilot, it is recommended that you field test more than one listening and reading comprehension story, to determine if one is more appropriate than another. You should also test more than one story if you are using EGRA to evaluate a program, since you will need to use different—yet equitable—stories for the pre- and post-testing.

Pilots need not be as resource-intensive or as logistically complicated as the main survey. Since you will not be claiming representativeness of the pilot schools or pilot children, you can conduct the pilot in only a few schools. Pilot schools should, however, represent the range of skills you expect to see in your larger sample so that the instrument can be tested for floor and ceiling effects. Of course, the students in pilot schools should also be learning in the language(s) of assessment relevant to your EGRA instrument(s).

If the pilot is taking place in public schools, your team will need to obtain permission to do so from the Ministry of Education.

Assessors whom you have trained (during the adaptation workshop) should conduct the pilot survey. You should prepare for them the same package of assessment materials that assessors will use in the main survey (i.e., timer or stopwatch, clipboard, student sheet, and student response forms). Typically, a pilot survey will assess 100 students for each group—such as language or grade of assessment—and take one to three days, depending on the number of assessors participating, the location of schools, and means of travel.

Data Entry and Analysis

As far as data entry, there are two options. If your team has already developed a data entry system for the main survey, you can use it for the pilot. (The information needed to make a decision about and produce a data entry system is explained in **Chapter 5: Data Analysis and Reporting.**) If you are not using a special system or it is not ready at the time of the pilot survey, your team can enter the pilot data into Excel for analysis.

For the post-pilot analysis, your team should have a qualified statistician run a Cronbach's alpha test, which measures the internal reliability of your team's adapted instrument by correlating how the individual tasks perform together. If resources permit, also send data to a psychometrician for psychometric analysis, which can further assess the adapted instrument's validity and reliability.

The results of the analysis likely will indicate changes that your team will need to make to the instrument. For example, you may decide to remove or modify particular items or reading comprehension questions that all students are having difficulty answering correctly. If students found a particular story very confusing, your team can revise or replace it. Or you may decide to remove or revise an entire subtask due to floor effects (all students are answering items incorrectly because they are too difficult) or ceiling effects (all children are answering items correctly because they are too easy). Also, if the instrument proves too difficult, your team may choose to change your survey design and assess different grade levels rather than revise the instrument significantly. For example, if you are conducting the pilot survey with second graders at the beginning of the school year and they performed very poorly, your team may decide to focus on third graders instead.

CHAPTER 2: FINAL CHECKLIST

At the end of the EGRA adaptation process, your team should achieve the following:

☐ Ministry of Education officials and/or other relevant stakeholders support the assessment and feel ownership of the forthcoming results (if relevant to your team's purpose)

☐ Relevant EGRA subtasks selected for inclusion in your team's instrument according to your purpose, budget, and pilot

☐ Draft instrument prepared using word-frequency lists based on local, grade-appropriate teaching and learning materials

☐ Draft instrument reviewed and adapted by technically qualified participants at adaptation workshop

☐ Revised draft instrument pretested in a field environment

☐ Workshop participants understand the importance of early grade reading, the purpose of your team's EGRA, and the importance of an adapted instrument to the validity of your EGRA results

☐ Optional: Supplementary questionnaires relevant to your EGRA are developed or adapted and then reviewed by workshop participants to ensure contextual appropriateness

☐ EGRA instrument and any supplementary questionnaires have been piloted in field environment in the appropriate language(s), revised accordingly to ensure validity, and finalized for use in the main EGRA survey

Chapter 3: Assessment Training

When the adaptation workshop, pilot testing, and final instrument revisions are complete, your team will be responsible for selecting potential candidates (and alternates) to carry out the main survey. You will then need to train them, and ultimately screen them for final hiring.

To further clarify, the purpose of the assessment training described in this chapter is to train potential assessors and supervisors and to select the best-performing trainees to participate in the data collection. The time and effort that your team expends on training assessors will have a direct impact on the quality and reliability of your EGRA results. This is because the training will help ensure proper student sampling, consistent administration of the test, and quality data collection and storage.

Assessment trainings are usually a minimum of six days and include opportunities for trainees to practice in a realistic (school) setting with children who speak the language of the assessment. You will need to both teach assessors (and supervisors) the proper procedures for administering the EGRA instrument, and train the supervisors separately on their specific roles and responsibilities. The assessment training is also the appropriate time to train the assessors and supervisors on logistical arrangements for data collection and procedures to follow at the school sites.

This chapter presents guidance on:

- Options for recruiting assessors and supervisors

- EGRA assessor and supervisor roles and responsibilities

- How to plan a training workshop for EGRA assessors and supervisors

- How to conduct an assessor and supervisor training

- How to select the final slate of EGRA assessors and data collectors from the available candidates.

Recruiting Assessors and Supervisors

Before the training, your team (or the hired subcontractor) will also need to screen and hire assessors. As noted in earlier chapters, some of the individuals who participate in the adaptation workshop may demonstrate the skills and willingness to serve as assessor or supervisor candidates, and you can ask them to continue to the next stage. The majority of assessors, however, will have to be recruited in some way, either through advertising in a local newspaper or other means appropriate for the context. Assessors can be teachers, graduate students, or people who work on similar kinds of projects. They need to be free to work for several weeks, to travel, and to attend all training dates. It is helpful if they have experience with data collection or research projects, and experience with children and schools. Assessors should be detail-oriented and able to oversee multiple events at once.

Since not all trainees may be able to perform to the desired standard of interrater reliability (covered in the last section of this chapter) and some may drop out or become sick, it is necessary to recruit more trainee assessors than are needed for the actual data collection. Supervisors can be recruited separately or be selected from the pool of trainee assessors on the basis of their performance and leadership skills.

LESSON LEARNED:

Train More Assessors Than Required by Your EGRA Survey Design

Your team should require all EGRA assessor candidates to pass an interrater reliability test before being hired. This precaution helps ensure consistency in data collection and quality of results. Therefore, your team should train more assessors than required by your survey design, so you can select the best ones to conduct the assessment. Usually, it is a good idea to recruit 10% to 20% more assessors than you need for the main survey. For example, if you need 20 enumerators, invite 22–24 to the assessment training.

Additionally, since some assessors may not end up being available for the data collection (due to illness, family emergency, or other conflicts), you will also need to have potential replacements.

If your team plans to use MOE staff as assessors, take care to avoid negatively affecting your government relationships if some ministry officials are not selected. To prevent misunderstandings, make it clear in the assessment training invitation that not all trainees will be selected, and use a transparent process to select assessors who meet established criteria. Your EGRA team may also consider assigning key MOE officials to other tasks or roles, such as visiting the teams during data collection, to ensure they feel included but are not necessarily in a position to affect the data collection and outcomes.

Key Roles in Assessor Training

Box 3.1 outlines the roles that you will need to assign for the assessment training event, as well as which members of your team are likely to be best suited for those roles.

3.1 KEY ROLES IN ASSESSOR TRAINING

The **lead facilitator(s)** will be responsible for overall facilitation of the training and ideally will have prior experience administering EGRA or similar early grade reading assessments. The EGRA team leader and/or reading specialist can fill this role. The lead facilitator(s) should be able to communicate with the trainees in a common language but need not be proficient in the language(s) of assessment.

The **co-facilitator(s)** will assist the lead facilitator(s) by overseeing group work, assisting trainees during practice sessions, and supervising trainees during school visits. Their role is particularly important if the lead facilitators do not speak the language(s) of assessment. Often, local language specialists or curriculum specialists who participated in the adaptation workshop and showed particularly keen interest and understanding of EGRA can serve as co-facilitators.

A project **administrative assistant** (or **subcontractor**, depending on the situation) will be responsible for all the logistical and administrative tasks, including arranging participants' transport and accommodations and ensuring that all materials are available and ready for use.

The **trainee assessors** will be potential test assessors fluent in the chosen language(s) of assessment. They will learn how to successfully administer the EGRA instrument and follow fieldwork procedures. The best-performing trainees will be selected to participate in the actual data collection.

The **trainee supervisors** will learn how to accompany the assessors in the field to help facilitate the data collection and oversee and manage logistics.

Field coordinators oversee the data collection in the field. They may travel to meet with each group that is collecting data, throughout the survey period. The field coordinator can be a subcontractor or project staff member who is part of the EGRA team. This person should know the instrument and the logistics required for data collection.

Other participants can include any ministry or donor staff who are available and might benefit from understanding the EGRA process. Often, they will just attend the first day of the training or observe the EGRA practice in the field. Also, it may be helpful to have the language specialist at the training to answer questions related to language and pronunciation that may arise. This is true especially if the facilitators do not speak the language(s) used in the instrument(s).

Assessor and Supervisor Responsibilities

The **assessor's** responsibilities include the following:

- Administer the EGRA instrument to students, objectively and in a technically correct and friendly manner.

- If applicable, administer questionnaires to students, teachers, and/or principals to gain more information on school conditions and practices related to teaching and learning, depending on the project or situation.

- Ensure that the information in all completed EGRA instruments is clear, complete, and consistent, and give completed EGRA instruments and any questionnaires to the supervisor assigned.

- Inform the supervisor of any problems or difficulties encountered during EGRA administration and help identify appropriate solutions.

- Follow the supervisor's instructions according to the training received.

- Behave professionally when working; dress in a modest and culturally appropriate manner so that students are not distracted or intimidated.

The **supervisor's** responsibilities include the following:

- Oversee, plan, and organize EGRA data collection in the field.

- Guarantee the team's on-time arrival at each school, with all the necessary materials and equipment.

- Introduce the EGRA team and explain the purpose of the visit to school authorities.

- Guarantee that the sample of students is drawn following proper procedures for randomization.

- Supervise the work of assessors during the assessment, to guarantee friendly and professional treatment of students as well as correct application of instructions for each subtask, including use of the stopwatch or timer. Provide guidance to assessors to help them improve the quality of their work. Use an assessor observation checklist to document this feedback.

- Guarantee that every student instrument administered is collected, in order, and complete.

- If applicable, ensure that student, teacher, and principal questionnaires are properly administered and collected.

- Complete a School Fieldwork Visit Summary Sheet for each school.

- Prepare and deliver all completed EGRA instruments, questionnaires, and other documents collected from all schools to the field coordinator.

- Maintain constant contact with the field coordinator to resolve problems that arise and communicate work progress.

- Prepare a Fieldwork Report and give it to the field coordinator at the end of fieldwork.

TIP: Supervisors are often chosen based on their prior EGRA experience or leadership qualities that will help them lead a small data collection team.

Pretraining Preparations

Staff the Workshop Leadership Team

As indicated above, your team will need to identify both facilitators and co-facilitators. The number of co-facilitators will depend on the number of participants. For example, if you are training a small group (e.g., 20 assessors), your team may need two or three co-facilitators; if you are training a larger group (e.g., 80 assessors), you may need five or more co-facilitators to ensure that there is enough oversight of the trainees and that each trainee receives coaching and feedback to improve his/her EGRA administration.

Prepare Training Materials

In addition to general office supplies such as a stapler, staples, scissors, and paper clips, your team (or the subcontractor) will need to procure and prepare materials for the assessment training. Each participant should have the following:

- Clipboard and stopwatch

- Workshop agenda and a folder for papers

- Notepad, pencils, and an eraser (include spares)

- EGRA instruments (student response forms and "stimuli" sheets). Each trainee should have several blank copies of the student response forms for practice[11]

- Handout packet containing overview of EGRA, key rules, etc., as appropriate (refer to **Annex 11: Sample Assessor Handouts)**

- Field supervisor's manual for each supervisor-in-training (to be provided after the general assessor training during a session just for supervisors; see **Annex 12: Sample Supervisor Handouts**)

- Optional: Copies of any teacher and principal questionnaires.

---

[11] For examples of specific country instruments, see the EdData II project website, www.eddataglobal.org.

Your workshop leadership team may also want to consider and prepare visual aids, such as still photos of assessors holding the multiple items required during implementation; or a simple video of assessors and supervisors working in a real school setting.

Arrange Logistics

Before the training, your EGRA team will need to arrange logistics for the workshop. This includes:

- arranging a venue suitable for the number of training participants

- obtaining multimedia equipment (e.g., overhead projector, and microphone and speakers if a large training group)

- if electricity is not consistently available and brownouts or blackouts are common, procuring a generator

- arranging for refreshments, including lunches

- reserving accommodations and finding transport for some or all of your participants.

You will also need to plan in advance for the field-practice component of the assessors' training. Before the training, your EGRA team (or a hired subcontractor) will need to identify schools for trainees to practice administering EGRA with students in the relevant grades and languages of assessments. These schools should not be too far from the training site, in order to ensure that trainees have sufficient time to practice in the school. They also should not be schools that will be part of the sample of schools for actual data collection, as this may bias results.

Once your team and any appropriate local partners have identified suitable schools, you will need to obtain a letter of permission from education authorities authorizing the visit and send it to the schools in advance. Then also contact the school principals yourselves and explain the date, time, and purpose of the visit. (Mornings are recommended because the assessors will typically need the entire school day to accomplish their work, so the earlier they arrive, the better.) Be sure to emphasize that the EGRA test administration is only for practice, and that the school and students will not be evaluated for any official purposes.

Finally, you will need to arrange transport for trainees and testing materials to and from the school sites.

TIP: Know where you can print or photocopy extra or revised forms as needed during the workshop. Having a computer and printer at your training venue is recommended to facilitate on-demand printing of materials.

Designing a Context-Specific Training Agenda

The size of your EGRA survey, the number of subtasks in your instrument, and the number of languages of assessment will all affect your assessment training. Since it is recommended to limit data collection to two to three weeks, a larger sample size requires more assessors, which necessitates more facilitators, a larger venue, more materials, and more site schools for field practice. Experience has shown that trainees benefit from smaller trainings where they are able to easily observe the demonstrations and

receive personal attention from facilitators.[12] Therefore, if your team needs to train more than 30–40 assessors, separate trainees into two or more smaller groups and conduct separate training sessions for each group.

If you hire enough facilitators and your training venue can accommodate more than one training at a time, you can train the groups concurrently using separate rooms and different facilitators. However, if your training venue is small or you have a limited number of co-facilitators, you will need to train the groups separately and sequentially, using the same venue and the same facilitators.

The number of subtasks, questionnaires, and languages of assessment—such as training assessors on eight subtasks and two questionnaires rather than on four subtasks—also will affect training time. Obviously, you will need to allocate more time for additional modeling and practicing. Furthermore, you may need additional training days depending on the trainees' previous experience (or lack thereof) conducting surveys and the facilitators' prior experience conducting EGRA trainings.

> ## LESSON LEARNED:
>
> ### Incorporate Practice into Agenda
>
> Trainees cannot practice EGRA administration too much! However, since practice can become tedious, practicing in different ways is important.
>
> Trainees should practice administering subtasks through whole-group demonstrations, small-group practice, and pair practice. Trainees can practice one subtask at a time, several subtasks, or the entire EGRA.
>
> During the training, facilitators and co-facilitators can use interrater-reliability tests and observations to identify which procedures need to be clarified and which subtasks or items require more practice. As a result, your agenda will need to remain flexible.

Overview of Training Content: Each training will be different depending on the facilitators, the type and size of EGRA, and the skill sets of the trainees. There is no set formula but, typically, trainings follow a certain general sequence (see also *Table 3.1*).

On the first day, the EGRA team introduces the survey project and the importance of early grade reading. The trainees learn what EGRA is and the basics of instrument administration. If time permits, facilitators may start introducing subtask demonstrations and practice.

The facilitators should explain that they will be leading interrater reliability (IRR) tests, which measure performance by showing how well trainees' scoring corresponds with an established standard, throughout the training to let trainees know how well they are doing. They should also make it clear early on that trainees' scores on IRR tests will be one of the criteria used to decide who is chosen to participate in the main EGRA survey.

The first day is an opportunity for high-level ministry officials to demonstrate their support for the EGRA survey. It is also a chance for any officials who did not attend the adaptation workshop to learn more about early grade reading and EGRA.

After the introductory sessions, facilitators should present an overview of the subtasks in the EGRA instrument you have developed. Your team will need to ensure trainees have multiple opportunities for practice. Throughout the training, facilitators should provide feedback based on their observations and IRR results.

---

[12] For simplicity, in the rest of the chapter we refer to the primary and co-facilitators alike as "facilitators" unless the specific context requires a distinction.

After two to three days of workshop practice, assessors should practice their roles in a real school setting. Your team should arrange for at least two days of practice in schools (located near the workshop site) with students from the relevant grades and language group(s). The workshop leaders should follow the in-school practice with (1) a group discussion, (2) post-fieldwork opportunities for more practice, and (3) another practice IRR test.

Aside from teaching trainees about the EGRA instrument, the facilitators may need to instruct trainees regarding administration of supplementary instruments, if they are being conducted alongside your team's EGRA instrument. If this is the case, the facilitators must make sure to orient all supervisors and assessors on their roles and responsibilities regarding the supplementary instruments and allot time for practice in the training venue and during field practice.

In the final stage of training, the workshop leaders will administer the final IRR tests and use the performance results as part of the selection process for assessors and supervisors. Before your team concludes the training, make sure to discuss logistics with those participating in the main data collection.

TIP: Considering the amount of introductory information presented on the first day, it is often a good idea to review the basic principles of EGRA administration with the trainees on the second day.

Table 3.1: Typical Training Sessions
Welcome and Introductions   Introduce facilitators and trainees and the goals for the training.
Overview of EGRA in Country X   Explain the purpose and scope of the planned EGRA survey. Provide an overview of the training and explain how trainees will be selected to participate in the data collection.
Introduction to early grade reading   Explain the rationale for early intervention and the theory behind the assessment.
Examples of EGRA in other countries   Provide examples of previous experiences in Country X or other countries.
General introduction to EGRA subtasks   Describe the basic reading skills that EGRA measures and the subtasks that are included in your EGRA instrument.
Roles and responsibilities in field   Explain the roles and responsibilities of assessors to all trainees.
Instrument administration   Explain the core elements of EGRA administration, including use of the stopwatch and clipboard.
Practice of individual subtasks   Explain the protocol and purpose of each subtask in your EGRA instrument and give trainees opportunities to practice. Note: This is not a "one-time" session but will recur throughout the training.
Field practice trip   Arrange for trainees to practice EGRA administration with students in a school environment and follow the trip with a reflection and feedback session.
Administration of interrater reliability (IRR) tests   Administer IRR tests to assess trainee progress and identify areas in need of further training. Later, use similar IRR tests to select assessors and supervisors for the data collection.
Selection of assessors and supervisors   Select assessors and supervisors to participate in the EGRA survey.

Supervisor orientation
Orient supervisors on their roles and review in detail each task for which they will be responsible. (Note: This usually takes place after trainees have been selected and includes supervisors only.)
OPTIONAL: *Introduction of supplementary instruments*
Explain and practice administration of relevant supplementary instruments (i.e., questionnaires)

If your team needs additional guidance on how to structure your assessment training, refer to the sample training agendas in **Annex 13: EGRA Assessor Training—Agenda Examples** for ideas, while keeping in mind that your agenda must be specifically tailored to your team's context.

Building the Capacity of Trainees

In order to ensure a standardized assessment and reliable data, all assessors must administer the test the same way. This includes reading the instructions *exactly* as written; using test materials correctly; and refraining from coaching, correcting, or giving feedback to students (see also ***Box 3.2***). Facilitators need to clearly explain to trainees that variations in administration can make the test easier or harder for students (thus affecting scores), while differences in scoring practices can lead to incorrect, inaccurate, and unusable data. Furthermore, your team will need to clarify which student responses to various subtask items should be scored as correct and incorrect in order to ensure consistency and validity in scoring.

3.2 HOW VARIATIONS IN ADMINISTRATION AFFECT RESULTS

Below are a few ways that variations by assessors regarding ERA administration can affect results.

☐ Assessor provides more examples and allows more time for students to practice

☐ Assessor gives students more time to respond (i.e., doesn't adhere to the three-second rule) Assessor scores letter *names* as correct (even though the test is on letter *sounds*)

☐ Assessor allows certain pronunciations that other assessors do not

☐ Assessor gives students answers to items they do not know

☐ Assessor explains directions more than two times to students who do not understand

☐ Assessors does not keep good time with the stopwatch, which could affect scores

TIP: As noted above, and if your budget permits, it may help the trainees for your team to prepare a video demonstrating what EGRA administration looks like in practice, which they can view before they go to the schools. It is also a good teaching tool since facilitators can ask trainees, "What did the assessor do well?" or "What should be improved?"

Practicing with Materials

The trainees will find it difficult and clumsy at first to handle all the materials at once, so be sure to say so, and then demonstrate and give feedback. Trainees also will need to be comfortable reading the EGRA instructions to students, and the facilitators will need to coach them on the appropriate pace (i.e., not too fast or too slow) and expression to use.

Be aware that trainees may not be accustomed to reading, or reading in a particular language, so the workshop planners should allow ample time for the facilitators to demonstrate and the trainees to practice how to read the directions. Third, trainees will need instruction on how to hold their clipboards appropriately so students cannot see what they are writing. This is not as easy as it sounds, so consider using photos to show positive examples, project the photos on a screen during the training, and remind the trainees each time they practice.

Lastly, trainees will need to practice using stopwatches properly since scores will be affected if the assessors allot different children different amounts of time. ***Box 3.3*** presents instructions for using a simple timer or stopwatch.

3.3 CHOOSING A TIMER OR STOPWATCH

The choice of stopwatch or timer to be used in the EGRA survey is an important one. Several factors should be considered:

- Availability of extra devices

- Availability of batteries

- Ease of use

- Countdown feature.

The main difference between a stopwatch and a timer is that timers usually have a function that counts *down* from 60 seconds to 0 instead of *up* from 0 to 60 seconds. The timer will automatically beep and stop when the time is up, whereas the assessor will need to manually stop the stopwatch when it reaches 60 seconds.

This is an extremely important distinction, as the assessors will have several tasks to manage at once, and stopping a stopwatch that is counting up to 60 seconds at exactly the right time is difficult to do while simultaneously monitoring a child and scoring responses on the protocol.

Scores are calculated based on the number of letters or words that students can read correctly in 60 seconds. Thus, it is imperative that all students receive exactly the same amount of time for each timed subtask. If one child is allowed 58 seconds and another child 64 seconds, the data will be unreliable because students will have had different opportunities. In other words, any time frame that is different from 60 seconds will confound the data.

In short, assessors who have to watch a stopwatch will have a much more difficult time scoring accurately. If timers are unavailable, some mobile phones also have a countdown option. It is highly recommended that whatever device is chosen, it should count down and preferably makes some kind of noise at "0."

Scoring

Teaching assessors to mark the student response forms correctly is a key component of the assessment training. Trainees will need to practice how to properly record responses according to the predetermined rules (see ***Box 3.4***).

3.4 KEY RULES FOR MARKING/SCORING EGRA

Three-second rule: If a child hesitates to answer for more than three seconds on a given item, put a slash mark through the item (letter or word) to mark it as incorrect. Ask the child to continue.

Early-stop rule: If a child is unable to provide a correct answer on any item in the first row or section of a subtask, thank the child, mark the box at the bottom of the scoring page, discontinue the subtask, and move on to the next subtask.

Stopwatches and brackets: When the child completely stops reading the items in a subtask, first stop the timer, then put a bracket around the last letter or word attempted, and finally enter the time remaining.

Skipped-letter/word rule: If the child skips a letter or word, do not say anything or draw the child's attention to the missed letter or word. Instead, put a slash through it and allow the child to continue.

Skipped-row rule: If the child skips a row of letters or words, put a line through the entire row. Do not say anything to the child, but allow him or her to continue.

Comprehension questions: Only ask questions that pertain to the words of text that the student has read. Do NOT ask questions for text that the student has not read.

Repeating questions: If a child asks you to repeat a question, you can repeat it only ONCE.

Aside from demonstrating how to properly mark the student response form, the facilitators will need to work with the trainees to establish which responses for particular items will be considered correct answers and which incorrect. It is important to allow for differences in pronunciation so that children's accents do not obscure efforts to determine what students actually know. For example, assessors should use local standards to judge children's pronunciation and not hold children to strict standards, such as "British English" or "Parisian French." Also, some words can be pronounced correctly two ways (i.e. "read" in English). It is best not to include such words in your instrument (a decision that should be made during the adaptation workshop), but if they are present, then assessors should know to score as correct multiple pronunciations of certain words.

The facilitators also should spend training time helping assessors to identify correct responses to questions in the reading comprehension subtask, as this section requires assessors to use their judgment in some cases. Providing a list of correct answers to assessors during training will minimize variations.

LESSON LEARNED:

Give Trainees Extra Guidance

Scoring can be difficult even for trainees fluent in the language of assessment, since they may have been taught reading differently. Correctly identifying vowel sounds can be particularly difficult.

In one country, the EGRA team made an extra effort to build the capacity of trainees by identifying the vowels and letter combinations that might be confusing and more difficult to score correctly. Then, with the input of local team members, they prepared a chart, which gave two sample words to help describe the sound of each vowel or tricky letter combination. Throughout the training, the assessors could refer to the chart as they practiced and it proved to be helpful in ensuring more consistent scoring among assessors.

TIP: The most crucial aspect of proper scoring is to draw a stop bracket after the letter or word to indicate where the child stopped reading, either due to the early-stop rule or at the end of one minute. Without a stop bracket, a subtask cannot be accurately scored and included in the analysis.

For more details on how to score each subtask, please refer to **Annex 14: Scoring Presentation.**

Giving Feedback to Trainees

The purpose of the training is to build the capacity of trainees to effectively administer the instrument. The goal is for the trainees to focus on learning how to administer the test properly. Once they master this skill, trainees can then work toward administering the whole test more quickly. Essentially, "better rather than faster" is the motto for facilitators to keep in mind.

Over the course of the training, trainees will need opportunities to practice as well as receive feedback on administrative rules and procedures. After the trainees demonstrate they can model each subtask correctly, the facilitators should provide practice opportunities by:

- Inviting a participant to play the role of an assessor in front of the rest of the participants, and then asking them to discuss and give feedback.

- Modeling the correct application of the subtask by having two facilitators play the roles of assessor and student so trainees can practice scoring.

- Preparing simulations/demonstrations in which a person playing the role of an assessor makes mistakes or does not follow proper procedures; then ask participants to discuss what happened and what the "assessor" should have done differently.

- Breaking the participants into groups of three, with one trainee playing the student and two trainees acting as assessors. Only one assessor will read, but they both will score. This way after administering the section or the entire test, the two assessors can compare how they scored.

- Breaking participants into pairs and having them take turns practicing the assessor and student roles.

- Breaking participants into groups of three, with one person being an experienced assessor. This person can observe the other two practicing and can provide feedback.

The facilitators should give trainees feedback on their individual strengths and weaknesses throughout the course of the assessment training. Given the importance of feedback, having an adequate number of co-facilitators to observe is crucial to a successful training. Refer to **Annex 15: Assessor Observation Checklist** for more guidance for facilitators on how to review the trainees' performance in the training venue as well as in the field.

Interrater-Reliability Testing

There are multiple ways to conduct and score interrater-reliability tests. Your EGRA team should decide on a method that is best suited to your context in terms of number of trainees, resources available, and purpose of the EGRA survey. Most important is to have a measure of how well assessors are administering the instrument. You can use this information for choosing who will be a supervisor, assessor, or backup assessor as well as checking that assessors are indeed understanding and performing properly before data collection. In advance of the test, the reading specialist (or possibly another facilitator) will mark a student response form with incorrect and correct responses and other scoring marks (brackets, etc.). The facilitators will use this EGRA instrument as the "script" for the IRR test.

One method that has been used for EGRA IRR testing is to have two people role-model test administration. The two people (usually co-facilitators) play the roles of student and assessor. These should be native speakers of the language of the assessment. The "student" should practice with the "script" so he or she knows which letters and words to say incorrectly, skip, etc. The "assessor's" role is only to read directions. Then, the student and assessor actors role-play the EGRA administration, while the trainees score the responses.

Although the actors will be using the premarked student response form, at least one person (e.g., the lead facilitator or language specialist) should score a test as the demonstration, takes place, in case the "student" does not follow the script. The training leaders will then use this test as the "gold standard" against which they compare the trainees' scoring. Immediately after the test, the facilitators should collect the trainees' response sheets. The lead facilitator can then score trainees' tests to calculate their IRR scores. For detailed guidance on how to administer and score IRR tests, refer to **Annex 16: Overview of IRR Test Administration and Scoring.**

Another way to assess trainees' progress on EGRA administration is to arrange one-on-one tests by pairing a team member or experienced assessor/supervisor with a new assessor. This allows the trainee to practice administration and scoring simultaneously, but it is less efficient and not suitable to trainings with a high number of participants.

Regardless of the method used, trainees should take a minimum of three IRR tests during the training. The facilitators should demonstrate how it works by conducting a practice IRR test for the group so that trainees understand and feel comfortable with the procedure before the lead facilitator uses the tests to select assessors.

To promote learning, the lead facilitator can share the scores from the practice IRR tests with the trainees individually. Also, facilitators can congratulate the trainees about the highest score for each IRR to motivate them, but be aware that making all scores public to the entire group may cause negative feelings or problems among trainees. The lead facilitator also should use the IRR tests to provide feedback to the facilitators on how trainees are progressing and to encourage individual improvement. Along these lines, facilitators should be positive and encouraging in their collective and individual feedback to trainees to avoid discouragement, especially in the beginning of the training. At the same time, your EGRA team should ensure that all trainees know their participation in the data collection process is contingent upon their ability to perform well.

Field Practice

As noted earlier, to ensure that the trainees are adequately prepared to administer the instrument in realistic circumstances, they should practice EGRA administration with students in the relevant grades and languages in a school environment. By administering the instrument to children in a school setting, trainees will be able to put what they have learned into practice, identify areas of particular strength, identify areas they need to practice, and experience the challenges they may encounter during data collection.

Also as discussed earlier in this chapter, your administrative assistant or subcontractor will need to have made logistical arrangements for field practice well before the training. It is recommended that the assessors practice at multiple school sites and that no more than 10 people visit a single school to avoid overwhelming children with large groups of strangers. Also, there should be one facilitator or co-facilitator at each site to supervise the field practice and provide on-the-spot advice to trainees.

During the field practice, the supervising facilitator and co-facilitators can review protocols regarding introductions to school personnel, setup of the testing space, student sampling, test administration, and data management, to help prepare assessors. The field practice also will help the EGRA team to identify trainees who may naturally demonstrate leadership and may be appropriate for a supervisor role.

This field practice will allow facilitators and trainees to identify who needs additional training, and in what areas. After the field practice, which usually takes place in the morning, participants should regroup at the training venue for an afternoon feedback session on the experience. (This full day also approximates the conditions of the main survey.) Facilitators should encourage reflection on what went well, mistakes made, and areas for improvement. This provides a chance for facilitators to give more general feedback to the group and for trainees to raise concerns and ask questions about the challenges they faced during the field test. To better allow the trainees to incorporate the feedback from the field, the workshop leaders should incorporate into the agenda post-fieldwork opportunities for practice as well as a practice interrater-reliability test.

Selecting Assessors and Supervisors

To be fair to everyone, your EGRA team should select trainees to serve as assessors and supervisors for the data collection based on a transparent process. Facilitators' observations and the assessors' IRR test scores will help the EGRA team choose supervisors and assessors to hire for the data collection. You should select only the best performing trainees, and all assessors should reach a minimum of 90% reliability. An absence of even a half-day of training should disqualify a trainee.

The first IRR test can serve as practice, and you can use the last two IRR test scores for selection. At least three IRR tests are recommended, and the average of at least two tests is recommended for selecting assessors.

> ## LESSON LEARNED:
>
> ### Make Sure the Trainees Know the Importance of Their Role
>
> The facilitators should explain—more than once—during the assessment training that the interrater-reliability test is not arbitrary but rather an important way to ensure quality. Facilitators can motivate the trainees by explaining that their performance during the data collection is very important to the accuracy and validity of the results and future interventions.
>
> For example, explain that inflation or deflation of scores affects the ability of EGRA results to accurately reflect the students' learning and obscures school-level needs. By ensuring proper data collection, supervisors and assessors will enable specialists to design the most appropriate reading intervention to improve children's acquisition of crucial literacy skills.

After the workshop leadership team has carried out an IRR test, the lead facilitator will score each subtask and average all the subtask scores to calculate an assessor's overall IRR test score (see **Annex 16** for information on scoring the IRR test). At the end of the training, the lead facilitator will average two (or more) IRR scores to determine the trainee's overall IRR score. Then, he or she will rank the trainees from lowest to highest average IRR score. The lead facilitator should record all IRR scores and maintain the records in case your team is asked for evidence that the selection process was based on objective criteria. Additionally, you will need this information for reporting purposes, to provide assurance that the data are reliable and valid.

In addition to the IRR test scores, facilitators should consider trainees' ability to manage a clipboard, complete the paperwork, and properly use the timer or stopwatch. Furthermore, facilitators should carefully observe trainees to make sure they are reading the student directions verbatim from the script and not omitting information or adding directions. It is not uncommon for inexperienced assessors to elaborate on the directions and "teach" students what to do.

Your team will need to inform assessors if they have been selected to participate in the data collection process for the EGRA assessment. Usually, it is helpful if facilitators do not share the final IRR scores with the individual trainees, given that these scores are only one of the selection criteria. For example, you may have a trainee who scored well but was not selected due to poor performance on administration or other factors (e.g., they did not interact well with children in the field practice). EGRA teams have used different methods to inform participants they have been selected. It is recommended that a team member inform trainees privately, in order to avoid any embarrassment. Another recommendation is that trainees who are not selected be informed that they are "alternates" in case someone else is unable to serve as an assessor. If you are not familiar with the context, you can determine what is the most culturally and contextually appropriate approach for your context by consulting with a local team member.

If resources permit, it is usually a good idea to continue coaching a few alternate assessors who can serve as substitutes if a selected assessor becomes unavailable.

CHAPTER 3: CHECKLIST

At the completion of the assessment training, your team will have achieved the following:

☐ Assessors and supervisors selected according to predetermined qualifications, including IRR scores

☐ Assessors and supervisors demonstrate a high level of competency regarding EGRA test administration procedures, including school site setup, student sampling, test administration and scoring, and data collection protocols

☐ Supervisors trained on and demonstrate an understanding of their roles and responsibilities

☐ If applicable: Supervisors and assessors trained to appropriately administer EGRA-related supplementary instruments, such as teacher and principal questionnaires

---

Chapter 4: Data Collection

Proper data collection is a vital component of a successful EGRA survey because it ensures high-quality, reliable data that can be used to inform policies and/or the design of reading interventions. If your data collection is questionable, then your results may be disputed and fail to achieve your team's outcomes. Considering the amount of resources dedicated to EGRA data collection and the policy and programmatic implications of the results, adequate preparation and proper adherence to protocols are essential. By ensuring attention to detail, your team can help avoid problems in the field.

However, conducting surveys, especially in developing countries, is difficult. Most EGRA teams encounter challenges during the main survey such as a closed school, security concerns, or absent assessors. Fortunately, thorough contingency planning can ensure that your team is able to respond appropriately to any issues that arise.

As with the earlier stages of the EGRA effort, when appropriate—meaning that the ministry is willing, the project needs ministry input, and/or the ministry staff have the needed capabilities—your team should encourage Ministry of Education officials to participate in data collection, as a way to build ownership and capacity within the government. Officials can participate by serving as supervisors or assessors, if assessment is considered part of their duties. In some cases, they may also be seconded from their regular duties for the duration of the training and data collection. If they choose to participate, your team must take care to avoid any potential bias problems, such as officials trying to influence student results.

This chapter presents guidance on:

- How to organize assessment materials

- How to arrange travel logistics for data collection teams

- How to organize and pre-code EGRA instruments and supplementary instruments

- How to work with school personnel during data collection

- How to facilitate accurate and complete data collection

- How to supervise data collection

- How to ensure sufficient post-assessment reporting and data management

Key Roles in Data Collection

Box 4.1 highlights the roles that your team will need to cover regarding data collection.

4.1 KEY ROLES IN DATA COLLECTION

The **fieldwork coordinator** will be responsible for overseeing the entire data collection process in both the pilot and the main survey. Before data collection begins, this person should prepare the introductory letter for school personnel, create the data collection itinerary, and ensure that EGRA team provides all materials to the assessment supervisors and their teams. During the assessment, this coordinator will need to help supervisors solve problems encountered in the field, meet weekly with each data collection team to review progress, and be the reception point for all instruments. Throughout the assessment, it is also the role of the fieldwork coordinator to provide additional training and support as needed. The fieldwork coordinator may be a staff member from your organization or a subcontractor, depending on the staffing structure of your EGRA team.

At each school, the **data collection team** usually consists of one supervisor and two to three assessors. The **assessors** will administer the EGRA instrument and any supplementary questionnaires. The **supervisor** will manage sampling and logistics at the school site, oversee administration of the tests, ensure proper documentation and submission of all relevant forms, serve as the liaison between school officials and the data collection team, and perform data quality checks. Supervisors also may administer some EGRA instruments, depending on the situation and the ratio of students to assessors. Teams also will administer principal and teacher questionnaires, if conducted.

The assessment teams will select the participating **students** at random according to a predetermined sampling methodology. Students who consent will complete the instrument under the guidance of the assessor.

Preparing for the Fieldwork

Obtain MOE Permission

Your EGRA team should have obtained permission for the EGRA survey overall from the Ministry of Education at the beginning of the study, as described in **Chapter 1.** In addition, even before the pilot test, your team should secure letters of introduction from the Ministry of Education. Before conducting the main survey, ensure that you have a valid letter of permission from the MOE and that you have given copies to the data collection supervisors to present to the school director or head teacher of each participating school.

Prepare Data Collection Schedule

For the main survey, the logistics of the assessment will be more complex than the pilot and dependent on your research design. When planning your data collection schedule, keep in mind the following factors:

- Number of participating schools (as determined by your sample)

- Number of students to be sampled at each school (as determined by your sample)

- Location of participating schools

- Length of school day

- Time frame for data collection outlined in your work plan

- Number of assessors and supervisors participating in data collection.

In addition to this basic information, your team will need to verify whether the schools selected in the sample are functioning. Importantly, you will also need to obtain the exact location, mode of transport by which the school is accessible, and contact information for each school, as well as the days of the week and hours they are open. You should also verify the official name of the school and obtain an education management information system (EMIS) code from the Ministry of Education, if possible.

If your team already has identified the sample size per school, the data collection teams will sample the predetermined number of children per grade, from all classes in that grade. However, if you are also conducting classroom observations, then you may decide to restrict your sample to children from only the observed classrooms rather than all classrooms.

Your team should prepare a spreadsheet with the regions, districts, school names, contact information, and relevant language of assessment (if appropriate). Then, your EGRA team should assign data collection teams to those districts. At this point you will have a basic data collection/school schedule, which you can then use to arrange travel logistics and prepare a detailed itinerary.

Arrange Travel Logistics

The field coordinator should create a detailed itinerary for visiting sampled schools, including the date and day of the week and the team responsible for that school. The itinerary will depend on the distance between schools, types of transportation available (hired car, motorbikes, planes, boats, etc.), and whether teams will be able to return to a central location each night. In some cases, it will be more time and cost efficient to move from one school to the next, rather than returning to a main town. In that case, you will need to make sure that the teams have all the necessary supplies for several days.

In some countries, particularly when assessments are being conducted in very rural or remote areas, the data collection team must use a combination of different transport and/or require overnight accommodation. It is also good to keep track of all the team information and any mobile phone numbers, and provide each team with a contact information sheet.

LESSON LEARNED:

Make a Strategy for Transporting Assessment Materials

Assessment materials can be difficult to transport because the instruments and forms can have a lot of pages. The weight and quantity of instruments have posed a serious challenge when supervisors and assessors were traveling by bicycle, donkey, canoe, or foot.

Transporting materials to the field can also be a real challenge. In one country, the EGRA team did not realize that the materials were too heavy to be carried into the country by suitcase on an international flight. As a result, delivery delays caused serious disruptions in the training schedule.

Your team will need to anticipate and plan for such challenges. Fortunately, past EGRA teams have also developed practical and sometimes innovative solutions such as ensuring that all materials are double-sided, and giving all supervisors a backpack to carry materials such as the timers, extra supplies, etc.

Developing the itinerary is a complex process that needs to take into account the following factors:

- How many students a team can assess daily, based on what you found in your pilot study

- Distance and travel time between schools, given available methods of transportation

- Possible accommodation needs of data collection teams

- Language capabilities of teams, if you will be implementing EGRA in multiple languages

- Size and weight of assessment materials

- Security concerns

- Whether schools are closed on certain days, such as Saturday

- Whether schools have more than one class shift.

Please refer to **Annex 17: Sample Data Collection Itinerary and School Schedule** for sample formats for teams' contact information, a data collection itinerary, and a school schedule.

Procure and Organize Materials

Since the process for procuring test administration equipment and materials will take time, your team will need to start the process well ahead of the assessment start date. While your team will have previously estimated the necessary quantities of the assessment materials when preparing the assessment budget, you may need to update your budget based on the final number of schools in your sample. Also, replace any items lost or damaged during training and account for extras or spare items left over from training. When distributing the items to the field supervisors and their teams, remind them that the assessment materials are the property of the study, so they should take special care not to lose or damage any items. Without the materials, the survey cannot take place.

More on how to organize the materials: Each team should have its own bag of supplies, including both multiple-use and single-use items (see *Tables 4.1 and 4.2*). Depending on whether the team will be away from a "home" site, the amount of materials may vary. Some teams may be able to come back to a central location every day to restock; others may have to take three to five days' worth of supplies. The supervisor should be responsible for the "team bag" of materials and should take inventory at the end of each day, and be sure to restock items as necessary.

Table 4.1: Suggested Multiple-Use Items for Data Collection			
Item	**# per Team**	**# of Teams**	**Total**
Supervisor's Fieldwork Manual (collection of information sheets)			
Notepad for supervisor			
Large plastic bags to carry and protect all supplies			
Permanent felt-tip pens to mark envelopes			
Large clipboards (1 for each assessor and 1 spare)			
EGRA student stimuli books (2 for each assessor per week or, if resources permit, 1 laminated copy)			
Stopwatches/timers and batteries (1 per team member and 1 spare per team)			
Scoring pencils (3 for each assessor)			
Coding information sheet (1 for each team member)			
Detailed data collection schedule (1 copy for each supervisor)			
OPTIONAL: Identification badges (1 for each team member)			

Table 4.2: Suggested Single-Use Items for Data Collection			
Item	# per school	# of schools	Total
Sample-selection forms			
Optional: Director questionnaire (include spare)			
Optional: Teacher questionnaire (include spares)			
EGRA student response forms Language 1 (include 2 spares)			
Optional: Student EGRA student response forms Language 2 (include 2 spares)			
Pencils for student gifts (include spares)			
Envelopes and waterproof bags to carry completed questionnaires			
Copy of introductory letter from Ministry of Education			
School Fieldwork Visit Summary Sheet (to verify collection of all instruments)			
Assessor Observation Checklist (1 per assessor daily)			

TIP: If one is available, use a photocopier that can make double-sided copies and can automatically collate and staple. This will save time and paper and reduce the quantity and weight of materials that assessors have to transport.

Organize and Pre-Code Forms

The EGRA team and/or assessors (if available) should organize the packets of EGRA instruments, as well as any supplementary instruments (e.g., teacher and principal questionnaires), by school, with one envelope per school. The team and/or assessors should label each envelope with the school name, school code, school contact information, and name of the supervisor or team responsible for EGRA administration. It is also recommended that the field coordinator or another team member neatly label *all* envelopes to ensure that the handwriting is consistent and easy to read. Alternatively, a team member or project staff can key in the information for each school envelope into a computer, print it, and securely tape it to the envelopes rather than handwriting it. This should be done in advance of data collection.

The instruments can also be pre-coded with school codes as well as numbers indicating the grade level and the student identification number. *Box 4.2* illustrates how to develop a coding system.

4.2 USING SCHOOL CODES AND INSTRUMENT CODES

To help analyze data later, most EGRA teams use a system of school codes, which show the location of the school in a numeric representation. For example, for an EGRA taking place in multiple provinces or states, you may have numbers representing the province/state, the district, and the school.

The school code 10304 can be read as: 1 03 04

Province 1   District 3   School 4
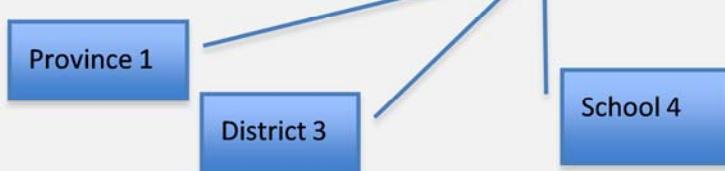
Teams may also add in numbers for grade-level and particular students. For instance, the instrument code 13040216, might indicate the instrument is from the 16th student in Grade 2.

The instrument code 13040216 can be read as: 1 03 04 02 16

Province 1   District 3   School 4   Grade 2   Student 16
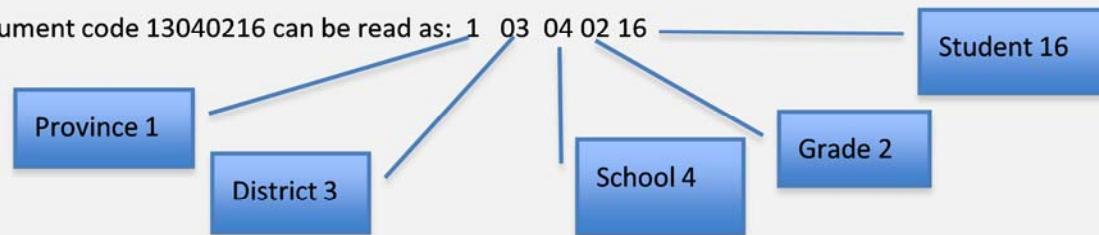
Please see **Annex 18: Sample School Codes** for an example of how an EGRA team in Nigeria created school codes.

Organize a Pre-Fieldwork Meeting

Your EGRA team should organize a meeting of assessment team supervisors to review procedures and materials a day or two before data collection in the field begins. At the meeting, you will give the supervisors their supplies and review coding, sampling, and other administrative procedures. To ensure good coordination, they should all have each other's mobile phone numbers as well as the field coordinator's telephone number. Your EGRA team should also schedule time during the first few days of data collection for the field coordinator to observe each team, troubleshoot any problems, and provide additional support as needed.

Data Collection in the Field

Pre-Departure Arrangements

The supervisor will need to contact all team members the day before departure to ensure they know the school they will be visiting, departure time transportation arrangements, and whether the team will be staying overnight in the field or returning to the "home" base. The supervisor should also contact the school to be surveyed to remind the principal of the team's arrival the next day. Additionally, the supervisor should verify all materials are ready and all stopwatches or timers are in working order.

Before arriving at the school, the supervisor and assessors should work together to fill in the identification codes on the EGRA instruments (and any other forms). Almost all of the data should be filled in the day before, to save time on assessment day. The assessors should not enter the school code in front of the child because doing so will waste time, distract the child, and prolong the testing time at the school. The only information the assessors need to fill in during the assessment should be information regarding the student's characteristics, such as gender, age, etc.

Liaising with the School Personnel

Once the data collection teams arrive at a school site, the supervisor should greet the school personnel, present the letter of introduction authorizing the survey to the head of the school, and introduce the study, including how much time the team will spend at the school during the assessment. The supervisor should thank the head teacher/principal for his or her cooperation, and clarify that the team will try to create as little disruption as possible. After informing the principal about the assessment, the supervisor should then ask the principal for a space to conduct the assessment and describe the ideal space. The supervisor should tell the principal that teachers and students should not be told to abandon a classroom in order to give assessors the "best" space. The supervisor should explain that the assessment can take place outdoors, but the ideal is that they have a quiet space.

Before beginning testing, the supervisor also should ask the principal to identify someone at the school who can provide assistance throughout the day to facilitate the EGRA survey. This assistance may include monitoring pupils while they are waiting to be tested, calling pupils from the classroom to be tested (if some wait there), and ensuring that other students and teachers do not disturb testing while in progress.

Student Sampling Methods: Before conducting the assessment training and starting data collection, your EGRA team leader will have decided on the appropriate student sampling strategy for your EGRA survey (see **Chapter 1**). Then, your EGRA team can ensure that the field supervisors are trained accordingly so that all field-based data collection teams sample students using the same method.

In order to report results at the school level, teams may decide to apply proportional representation, in which the number of students assessed is based on the size of the school. However, in most cases, teams decide to sample the same number of students per grade at each school (e.g., 20 second-graders per school). The idea is to keep the number of students assessed consistent from school to school. In the event that there are fewer children in a given grade than the predetermined number to be assessed, the data collection team should assess all children in that grade. For example, if the team had planned to assess 20 second-graders per school and only 16 second-grade students are present, then all 16 students should be assessed.

Assuming that your team is assessing the same number of students at each school, there are two common methods of selecting the predetermined number of students from each grade at your school site. Each method is presented below in its simplest form.

In the first sampling option, the **school roster method** (see *Box 4.3* for an example), the supervisor will use the school roster to select the students to be assessed in each grade. The advantage of this method is that it minimizes disruption to classroom learning since only selected students are pulled out of their classrooms. One disadvantage is that some of the students selected may not actually be present, since the school rosters can be inaccurate and many randomly selected students may not be present, due to absenteeism and dropout. Looking for students who are not in classrooms may cause some classroom disruption. In this method, your data collection teams are supposed to choose two lists of students: one to be assessed and one to be used in case of absent students.

4.3 EXAMPLE OF HOW TO RANDOMLY SAMPLE USING THE SCHOOL ROSTER METHOD

Imagine that your data collection teams have to select 10 students in grade 2 at each sample school, and there are two grade 2 classes at School A. Classroom 1 has 40 students and Classroom 2 has 50 students.

The step-by-step sampling process:

1. Take the school roster for all grade 2 classrooms and add the number of students in Classroom 1 (40 students) and Classroom 2 (50 students) to get the total number of Grade 2 students enrolled, which is 90 students in this case.

2. Divide the total enrollment for grade 2 (90 students) by the number of students that you want to assess to get the count-off number for your grade 2 sample (10 students). 90 total students/10 students to be assessed = 9, your sampling interval.

3. Take the roster for grade 2, and start with the first child on the list as number 1. Select every 9th child on the list to be in the sample of students to be assessed and write down their name on a separate piece of paper. Continue counting until you have all 10 students.

4. Allow for alternates by using your sampling interval to select a few extras. For example, in this case, the alternates will be students 11–14 selected using the same sampling interval of 9.

5. Return the school roster to the school's administrator.

6. Using the piece of paper with the names of selected students and alternates, call the selected students in for testing. If a selected student is not present, call the alternate student.

Note: The above example gives does not take into consideration students' gender. If a "50–50" approach to gender is being used, then the data collection teams will need to provide a first list and alternate list for all male students and a first list and alternate list for all female student—a total of four lists.

With the second option, the **student head-count method** (see also ***Box 4.4***), all students present that day in a grade form a line/queue outside of the school. The supervisor will count the total number of students present. Once every child in the relevant grade is counted, the supervisor (or another designated member of the team) will divide that number by the number of students to be assessed in that grade. As in the roster method, this establishes a "count-off" number. However, in the student head-count method, the actual students will be physically counted off according to their place in the line.

The advantage of using this method is that the sample is based on the students who are present, so there is less need for alternates. On the other hand, calling all students in a grade out of their classroom(s) to line up interrupts their lessons and disturbs all children in that grade as well as other children at the school. Further disruption can occur for selected students if they have to wait for their turn to be assessed outside the classroom. Therefore, if the data collection teams are testing fewer than 10 students per grade, it is recommended to have the selected children wait together outside the classroom with someone from the school watching them.

However, if your data collection teams are testing more than 10 students per grade, you may want to avoid keeping them all in the "waiting area" and outside of class for an excess amount of time. In this case, your data collection teams can send most of the selected students back to the classroom so they can continue with their lessons until it is their turn to be tested. A person from the school should be responsible for calling them from the classroom to the testing area so that there are no breaks in testing

(i.e., wasted time). If the data collection team sends students back to class, they should be careful that students are not switched out or improperly substituted by school personnel hoping to have the "best" students assessed.

4.4 EXAMPLE OF HOW TO RANDOMLY SAMPLE USING A HEAD-COUNT METHOD

Imagine that your EGRA team's research design requires the data collection teams to select 20 students from grade 2 in each of the sampled schools and ensure an equal number of girls and boys will be selected (i.e., 10 girls and 10 boys).

The step-by-step sampling process:

1. Ask all grade 2 students present to come outside and form two lines/queues: one for girls and one for boys.

2. Count the number of students in each line/queue (i.e., 22 girls, 38 boys).

3. Compute the sampling interval for each line/queue by taking the total number of girl students in grade 2 present and dividing it by the number of girls to be assessed. Then do the same to the total number of boy students. For each gender, round off the result to the nearest whole number to obtain your sampling interval. If grade 2 has 38 boys and 22 girls, then the sampling interval for girls is 22/10 = 2.2. This is rounded to 2 for the female sampling interval. The sampling interval for boys is 38/10 = 3.8, which is rounded to 4 for the male sampling interval.

4. The sampling intervals are used to select the sample of students participating in EGRA. In this example, consider the male sampling interval of 4. Then, select the fourth boy from the front of the queue and every 4th boy thereafter to be included in the boys' sample (4th, 8th, 12th, 16th, etc.).

5. Similarly, in this same case, consider the female sampling interval of 2. Then, select the second girl from the front of the girls' line and every second girl thereafter to be included in the girls' sample (2nd, 4th, 6th, 8th etc.).

6. Count off one or two alternates in case a child does not consent, has a disability that makes testing impossible, or leaves school before being assessed.

7. After the appropriate number of students and a few alternates are selected, return the other students to class and write down the selected students' names. In this case, the data collection team should have one list with the 10 randomly selected girl students and another list of 10 randomly selected boy students, each with a few alternates.

8. Using the lists, call the selected students for testing, using alternates only when necessary—such as a student not giving consent, being absent that day, etc.

TIP: For both sampling methods, in a case in which there are fewer children in a given grade than the number to be assessed, the data collection team should assess all children in that grade.

Arranging a Testing Space

Data collection teams may be able to find empty classrooms, ask the principal to use his/her office or another similar space, or sit outside to conduct their work. If data collectors sit outside, the teams will need to find a place that is shaded and free from distractions. Rocks or another heavy object can be used to hold down papers if it is windy. Whether teams set up inside or outside, assessors should be sitting far enough away from each other and from children waiting in line so that no child can hear the test text being read.

Photo credits: RTI International, Nigeria (left). RTI International, Mali (right).
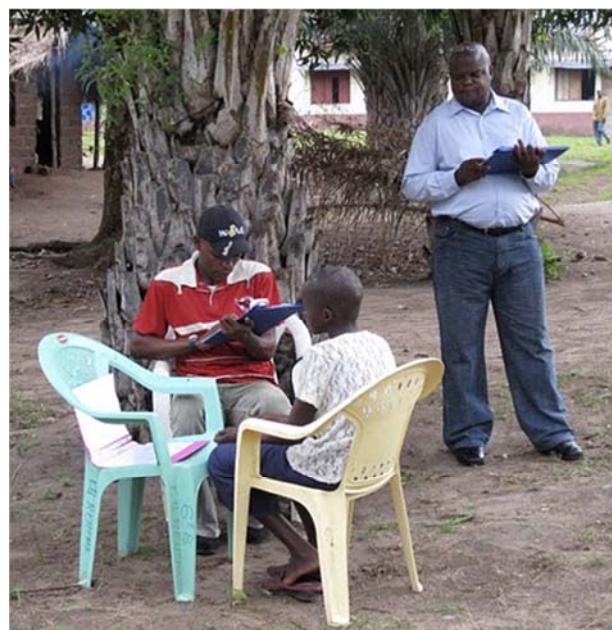
Photo credits: RTI International, Democratic Republic of the Congo (left). The IRC, Democratic Republic of the Congo (right).

A face-to-face arrangement in which the student and assessor face each other will prevent the learner from seeing his or her answers recorded and being distracted. If it is not possible for the assessor to sit across from a learner while administering the assessment, s/he should hold the clipboard at an angle to avoid distracting the learner, as practiced during training. It is also best for the assessor to sit facing the most likely distraction (e.g., the entrance to the classroom or the line of other students waiting to be assessed), so that when the children arrive, they sit with their back to the most distracting place. If

possible, students should also be arranged so that they are not face-to-face, but rather face the backs of other students and away from distractions such as the recreation area. Also, note that if tables are not available, benches or chairs can substitute.

TIP: Test administrators should keep the workspace clean and free from distractions. For example, pencils or other small student gifts should be kept out of sight, on a bench or in a bag next to the assessor. Testing papers, mobile phones, purses, and other materials should be in a place where they are not visible to the student. Most importantly, assessors' phones should be turned off or set to silent.

Instrument Administration Procedures

As described in **Annex 11: Sample Assessor Handouts**, the assessors should spend the first few minutes ensuring the student is comfortable and relaxed. The assessors should enter demographic information about the specific student on the cover page before starting to administer the assessment. The assessors should not wait until after the test to fill in the data as this information is key to data analysis and if forgotten will make the completed instrument useless for the study. Supervisors should monitor assessors to make sure they administer the test according to standard protocols learned during the training.

Once the assessors have successfully completed the assessment, they will need to:

1. Check to make sure they have not missed any items

2. Tell the child "thank you" and give him or her a small gift (such as a pencil)

3. Ensure that all children are escorted back to the classroom and ask them to wait to talk about the test until everyone has had a turn to take it

4. Give the completed test to the supervisor or carefully place the test in a pile for completed tests, away from the view of the next child

5. Clean the surface area for the next learner

6. Obtain a new assessment booklet for the next learner.

TIP: Questionnaires and evaluation instruments that are incomplete have greatly reduced value during analysis, so it is important to take every effort to obtain complete information.

Box 4.5 presents several types of problem scenarios that data collection teams may need to manage while they are in the field. Willingness to be flexible and preparation beforehand are the keys to this type of troubleshooting.

4.5 TROUBLESHOOTING FOR PROBLEM SCENARIOS

SCENARIO 1: Child selected to participate has a disability, such as deafness or blindness, which makes it difficult or impossible to complete the assessment

SOLUTION: In general, assessors are advised <u>not</u> to replace children with disabilities who have been selected for administration with other children. This is because the sample should present an overall picture of how all children are learning to read. Therefore, all students sampled who are able to sit through the test should be tested. Sight impairments and extreme hearing impairments are acceptable grounds for replacement, but children who exhibit less extreme challenges—including learning disabilities, and even some less severe hearing disabilities—should be tested.

If the data collection team decides that a child needs to be replaced, the supervisor or an assessor should thank the child, give him/her the token gift, tell him/her that their participation is not necessary, and send him/her back to class. The data collection team will then need select an alternate child according to your EGRA's predetermined sampling procedures, and note on the school sampling form that a sampled student was replaced as per your team's selected student sampling procedure. (The options are described in the previous section of this chapter). The only people who should decide whether a child should be replaced are the EGRA assessors and supervisors—NOT teachers or other school employees.

SCENARIO 2: Interruptions or noise make it difficult or impossible to complete the assessment

SOLUTION: The data collection team should try to provide students participating in the assessment with a private, quiet, and distraction-free environment. Assessors can take a break if the noise appears temporary. If noise or interruptions are a persistent problem, the data collection teams should try and resolve the problem. They can consult teachers and principals to identify another space. It may be possible to move the assessment stations to another location at the school site. If relocation is not possible, the assessors should try to proceed, talking over the noise and/or moving closer to the learner. The aim is to complete the assessment.

SCENARIO 3: Learner appears tired and says "I don't know" reflexively without trying, does not answer the assessor, or talks about something else

SOLUTION: Determine whether the student's behavior is a sign that the item is too difficult, and therefore that the learner should not pass an item, or whether the refusal is a sign of fatigue. If a child seems tired:

- Remind the child that she is working hard and you have something for her once she finishes

- Offer additional praise for the child's effort

- Take a short break by standing up and having the child stretch, run in place, sing a song. Tell the learner he or she is working hard, and thank him or her.

Discontinuing the test may be necessary if the child cannot be brought back to the task. Remember that ethical standards dictate that if a student refuses, the test cannot continue. Assessors should <u>not</u> prod students by asking questions more than once. If a student says no or indicates that he or she does not wish to continue, then the test should be stopped.

Source: Adapted from RTI International. (2010, May). *EGRA Plus: Liberia Assessor Manual.* Prepared under the USAID EdData II project, Task 6, Contract Number EHC-E-0604-00004-00. Research Triangle Park, North Carolina: RTI.

Ensuring Quality Through Supervision

Field supervisors should monitor quality on four aspects of assessment:

- assessor-student interaction

- instrument administration

- scoring

- completion of student assessment forms.

Supervisors will be monitoring multiple assessors simultaneously and should be trained to monitor assessors and review tests in a way that minimizes distraction to the child.

During the assessment, supervisors may sit next to the assessor during testing from the start or observe from further away in a way that doesn't distract the child. Ideally, the supervisor should be close enough to see how the assessor is scoring the student's responses, but this is sometimes challenging. Therefore, an alternative approach for the assessor to sit close enough to observe interactions overall, then check the test afterward to review the markings based on what she or he heard and observed.

When giving feedback to a particular assessor, the supervisor should speak with the assessor in the interval between when the child finishes the test and before the next child comes over. The supervisor can check the completed forms as the assessor administers the test to the next child. If there are missing items, s/he should wait for the next child being tested to finish and ask the assessor to review the previous test. If the assessor forgot to include specific demographic information or a particular stop bracket, then they should have the assessor mark it. However, if several test items are missing or the scoring is not clear, then the supervisor should arrange for the assessor to test an alternate child according to your sampling procedure. If front-page student information—such as grade or gender—is missing, the supervisor or assessor should make sure to fill it in before the student goes home.

On the basis of his or her observations, the supervisor in each data collection team should complete an Assessor Observation Checklist for each assessor on a daily basis or every few days (see **Annex 15: Assessor Observation Checklist**). At the end of each day and/or during travel, field supervisors can discuss with the data collection teams their strengths and weaknesses, identify any problems and solutions for them, and suggest how to improve data collection efforts.

To provide further support and quality control, the fieldwork coordinator will meet with the data collection teams at least once each week to:

- collect all completed student response forms and staff questionnaires

- count and review the student response forms, all of which must meet quality standards

- review progress made on the data collection time lines assigned and, if necessary, restructure according to needs

- review School Fieldwork Visit Summary Sheets and Assessor Observation Checklists to detect problems and strengths identified, and to make comparisons with information from other teams

- verify that the transportation and necessary materials will be available on time and at the location where work is scheduled for the following week

- verify that assessment team personnel are available and sufficient in number, and find replacements if necessary.

TIP: Since it is difficult to observe assessors closely without distracting students, facilitators should make the most of opportunities for observation and feedback during the assessment training, when it doesn't matter so much if the child gets distracted because the results are not being used.

Post-Assessment Reporting and Data Management

Before leaving the school, supervisors should ensure the desired number of students has been assessed and verify the number of completed student response forms and any relevant supplementary questionnaires.

The field supervisors should also complete the remaining portions of the School Fieldwork Visit Summary Sheet at the end of each school visit. **See Annex 12: Sample Supervisor Handouts** for an example of a School Fieldwork Visit Summary Sheet. The data collection teams will submit this document to the field coordinator along with the field supervisor's fieldwork report (see ***Box 4.6***) at the conclusion of data collection, and it is useful for the field coordinator when preparing the final fieldwork report. Field supervisors should document unusual or special circumstances encountered during the school visit, such as large number of students absent, noise or other disruptions, etc.

Before leaving the school site, the supervisor should place all completed EGRA instruments into one large envelope with the name of the school, the date, and "STUDENT FORMS" written on the outside of the envelope. The supervisor can also prepare a separate envelope labeled with his or her name and the title "FIELDWORK ADMINISTRATION FORMS" to be used for all the schools where his or her team is conducting assessments. This envelope should hold all School Fieldwork Visit Summary Sheets, Student Sampling Worksheets, and completed Assessor Observation Checklists from all schools, across all days of fieldwork, for the given data collection team. The alternative is to put all the forms for each school into one envelope, which some teams in the past have found to be simpler. Regardless of which organizational approach, your team uses, the envelopes should be kept in plastic bags to prevent damage.

4.6 THE KEY COMPONENTS OF A SUPERVISOR'S FIELDWORK REPORT

Each fieldwork coordinator will prepare a Fieldwork Report within a week of concluding data collection. Below are some suggestions for information to include in the supervisor's report:

1. Name of the supervisor and assessors on the team.

2. Table with **list of all schools** visited, with school name, region, and date of the visit; number of student response forms collected by grade level; and number of teacher questionnaires collected (information maintained by the assessment supervisors).

3. Brief paragraph on each school, describing the conditions of work and other unusual or special circumstances.

4. Summary of any challenges and difficulties encountered during work, and how they were addressed.

5. Main strengths and weaknesses of the team and the supervisor.

6. Suggestions to improve fieldwork in future.

7. Supervisor's signature and the date of preparation of the report.

Each fieldwork coordinator also should prepare an Activity Report within two weeks of concluding data collection. Suggested information to include in this report is shown in **Box 4.7.**

4.7 BASICS OF A FIELDWORK COORDINATOR'S ACTIVITY REPORT

Suggested information to include in the Activity Report is as follows:

1. By the numbers: Dates, people, locations, etc.

   - Dates of data collection

   - Number of supervisors

   - Number of assessors

   - How often were you able to visit each team in the field?

   - What did you do during your site visits?

2. General overview of data collection

3. Any challenges or problems encountered and how they were solved

4. Lessons learned

5. Overall performance of the EGRA *administrators* and *supervisors*. What were the main strengths and weaknesses the EGRA data collection teams?

   For example:

   - How well did they work together as a team?

   - How well did they manage sampling?

   - How well did they manage supplies and use of data collection instruments?

   - How accurately and completely did they record data?

   - How well did supervisors provide feedback to assessors and monitor the quality of data collected?

6. How well did the EGRA training prepare assessors and supervisors for their work? Do you have any suggestions for how the training be improved?

7. Suggestions to improve data collection in future

CHAPTER 4: CHECKLIST

At the completion of data collection, your team will have achieved the following:

☐ Required number of EGRA instruments (including student questionnaire) administered, with all data recorded accurately and completely.

☐ School Fieldwork Visit Summary Sheets and relevant questionnaires (e.g., teacher or principal) for each school site, with all data recorded accurately and completely and any special circumstances explained.

☐ Field coordinator's Final Fieldwork Report (based on reports from each field supervisor).

Chapter 5: Data Management and Analysis

Being able to use the EGRA results to make informed policy or project decisions is the end goal of the EGRA process. Thus, taking time to develop a data entry and analysis plan is crucial to being able to provide valid and useful findings based on the data. Your EGRA team should carefully think through the plan for data entry, storage, and analysis before data collection begins. Your team will need to proactively make decisions about a number of factors related to data management: You will need to select and develop a data entry system suited to your team's context and budget; manage the data entry process and personnel; and ensure that data collected are appropriately and securely stored. Once the data have been entered into a system, you will then need to oversee the cleaning and analysis of the data.

In sum, the data management and analysis process is something that should be designed and planned for from the beginning of the EGRA development process.

This chapter offers guidance on:

- Key members needed for the data team

- How to select an appropriate data entry system

- How to hire and train data entry clerks

- How to conduct and manage the data entry process

- How to clean and analyze data

- How to produce an EGRA analytical report.

Box 5.1 defines some key terms relevant to the data analysis and reporting tasks.

5.1 KEY DATA TERMS

Data entry: The process of transferring data from paper to an electronic database.

Raw data: The term for data (or information) before they have been reviewed, errors fixed, and additional variables created.

Data cleaning: The process whereby raw data are reviewed, data entry errors are corrected (as feasible), and scores for certain variables are generated (such as correct letters per minute).

It is important to remember that data entry and analysis can take several weeks to accomplish. Depending on the size of sample and the budget available, data entry alone can take several days to weeks. Once entered, data will need to be cleaned, which can take several more days or weeks depending on how accurately the data were collected and entered. Once data have been cleaned, data analysis can begin. Analysis can take several days at minimum. It is difficult to predict exactly how long the entire process of data entry and analysis will take.

EGRA surveys with a small sample size, a smaller number of EGRA subtasks, and very complete and accurate data may only take a few weeks to enter and clean, whereas surveys with a large sample size and greater number of EGRA subtasks and questionnaires could take longer. The process will be greatly affected by how much prior planning has been done, how well the data entry system has been designed, and how accurate and complete the data are. The more errors in the data and the more frequently there are issues of unclear test scoring, then the more time it will take data entry clerks to enter data, and the longer it will take for cleaning and analysis. Therefore, it is important to stress to assessors that their work be done extremely carefully and that they follow all EGRA administration rules exactly.

Key Roles in Data Management and Analysis

Box 5.2 highlights the personnel who will contribute to data entry, analysis, and reporting.

5.2 KEY ROLES IN DATA MANAGEMENT AND ANALYSIS

Team leader: The team leader's level of involvement in this portion of the EGRA effort will depend on the project and the technical experience of the team leader. Team leaders may be responsible for making decisions about a data entry system, overseeing data entry, and coordinating data analysis.

Data entry trainer: This person will train the data entry clerks on how to enter data properly. This person can be the data entry supervisor, a team leader, or someone who has built the data entry system's user interface.

Data entry supervisor: This person is responsible for overseeing the data entry process and ensuring quality control. The data entry supervisor will be responsible for training data entry clerks in accurate data entry. She or he will evaluate the quality of data entry on an ongoing basis and be responsible for ensuring that all data are entered as accurately as possible. This role can be filled by the team leader or another staff member who has experience with data entry.

Data entry clerks: These people are responsible for all data entry associated with the EGRA survey over the course of several days or weeks. Data entry clerks should be very comfortable with computers and detail-oriented. Preferably they should have prior experience entering data.

Data analyst: This person can be a project staff member, subcontractor staff, or a specialist hired for this task. It would be best if the analyst is skilled in using a statistical software program such as Stata. He or she will be responsible for reviewing the data and conducting all analysis. Also this person will need to have a good understanding of the test measures in order to know what to analyze and how to interpret the data.

Selecting and Developing a Data Entry System

Selecting the Data Entry System

There are many options for creating a data entry system. The process of selecting a platform through which to enter data should take place weeks or even months before piloting the test in the field. While preparing the platform may be difficult before the instrument is finalized, preliminary work can begin so that once the instrument is finalized there is little or no remaining work to finish creating the data entry interface.

In the most basic of circumstances, your team can use Excel to record student responses for individual subtask questions, where each question or item on the subtask is assigned a column and each student, known at this stage as an "observation," is assigned a row in the database. However, this method is generally seen as more prone to error than other methods due to the ease of accidently typing the wrong

information into Excel, without out any way for the program to give feedback. If the choice is made to enter data for each EGRA question or item, an Excel spreadsheet could have hundreds of columns, making it very easy for even the most careful data entry clerk to enter information into the wrong cell. For this reason a simple Excel spreadsheet is not advised.

Alternatively, many database programs have functionality built into them which allows for drop-down menus or radio buttons (see *Figure 5.1* below for examples of possible data fields and corresponding menus and buttons). All of these features can assist in accurate data entry. Microsoft Access and Excel (not ideal but can be used if necessary), CS Pro, and FileMaker are just a few examples of software that has been created for data entry, complete with the ability to store the data in a database as the data entry process continues.

These functionality features ensure that transcription errors are kept to a minimum, while often

> ## LESSON LEARNED:
>
> ### Sustainability versus Rigor
>
> In some situations, the sustainability of the data entry system is a more important consideration during the software selection process than is sophistication of analysis capability. If the goal for the EGRA survey is that the Ministry of Education or a local organization (which may not be technology savvy) should be able to lead or repeat the process of implementing EGRA, it will be important for you to determine staff capacity for handling data and different software programs.
>
> If capacity is high, then more rigorous and less error-prone options would be best. However, in some cases, ministry or organization staff are not specifically trained to use complicated software programs. In this case, consider whether it makes sense to train staff to use less complicated options in order to ensure they will be able to continue or replicate the work after the project is completed.

times increasing the speed at which data entry clerks can record test results. For example, radio buttons can be used to record a child's gender, while a drop-down menu can be pre-populated with the names, locations, and general information about a child's school. These features ensure that children are recorded as having only one of three options for gender: male, female, or missing (there was nothing marked on the test, thus the data entry clerk should mark a nonresponse to the question), or that all children who attend the same school are recorded as such in the database.

In comparison, direct, line-by-line entry into Excel is more likely to result in misspellings and typographical errors on the part of the data entry clerks, which will undermine the validity of the data. On the other hand, selecting from drop-down menus even within Excel will ensure that schools, regions, and other categorical responses have consistent values and spellings. This step alone will save hours of work during the data cleaning process.

Figure 5.1: Example Database Entry Interface (with drop-down menus and radio buttons)

A final option is to have a specialist in software programming design a software system especially for data entry of EGRA. This would likely require hiring a programmer to create this system. A specific software system for data entry would allow for the control of the interface and built-in checks to ensure that all data are filled in as accurately as possible. (For example, the system would not allow data to be entered that were not possible, such as grade 88 when the only grades tested were grades 2 and 3.)

A software system can be designed to look almost exactly like the EGRA instrument so that data entry clerks only have to click on items to mark them incorrect, while the information is automatically recorded and a database is created in one of several programs (such as Excel or Access). While this option may provide the advantage of having the least data entry errors, it is also the most complicated and expensive. If your team chooses this option, it is important to thoroughly test the software before data entry to ensure it is working and saving data properly.

Naming and Coding Variables

Once you have selected a data entry system, you will need to work with the database developer to create names for all of your variables, such as words correct per minute, letters correct per minute, gender, student ID, or other information that will be entered into the database. The names of each variable, and the format in which the data are entered, is called a codebook. The codebook provides all the information necessary for the person (or people) who will do data analysis. You should review the EGRA instrument and related questionnaires with the person developing the data entry system to ensure that all information is coded correctly. A sample codebook is provided in ***Box 5.3***.

5.3 SAMPLE CODEBOOK

Section: Demographic	Format	Label Name	Label Values	Description
country	String Variable	—	—	In which country was the assessment given?
year	Integer (2000-2020)	—	—	In what year was the student tested?
month	Ordinal (1-12)	month	1 January 2 February . . .12 December	In what month was the student tested?
date	Date format	—	—	On what date was the student tested?
region	Nominal	region	Country-specific list	In which region is the student's school located?
Section: Letters				
letter1-letter100	Dummy	yes/no	0 No 1 Yes	Item-level response
letter_score	Integer	—	—	Items correct
letter_score_pcnt	Float	—	—	Items correct out of 100
letter_score_zero	Dummy	yes/no	0 No 1 Yes	Zero items correct?
letter_time_remain	Integer (0-60)	—	—	Seconds remaining on stopwatch
letter_auto_stop	Dummy	yes/no	0 No 1 Yes	Items 1–10 all incorrect?
letter_attempted	Integer	—	—	Last item attempted?
clpm	Integer	—	—	Calculation for correct letters per minute

Calculating Outcome Variables

For some key variables, such as correct words per minute, the team member responsible for the database or the statistics consultant will need to add a function to calculate the correct value. This function will use information collected on the EGRA instrument—such as the number of words attempted, number of words incorrect and correct, and the time (in seconds) remaining at the end of the test—to calculate the correct words per minute (see formula below). In the database, the data entry clerk would enter the total number of words attempted, the total number of words read correctly, and the amount of time the child took to read the words. For example, if a child read 45 words, of which they read 40 words correctly in 60 seconds, then the child would have read 40 correct words per minute. However, if the child read all 50 words in the subtask—40 of them correctly—in 45 seconds, the formula would calculate that the child read 53 correct words per minute.

$$correct\_letters\_per\_minute\ = correct\_letters * \frac{60}{time\_elapsed}$$

Conducting and Managing Data Entry

Hiring Data Entry Clerks

The data entry process will require the dedicated time of skilled personnel who accurately enter EGRA data. Depending on the size of the sample and amount of data collected, you may need to hire multiple people specifically for this task. Small pilots or data collections may require only one person and an Excel database. However, for a large-scale national baseline or impact evaluation, hiring specific staff to enter data is highly recommended. Hiring dedicated data entry staff will ensure that staff are focused on only this task full time, improving efficiency and their ability to focus on the work.

Your EGRA team also should identify a supervisor dedicated to overseeing the data entry clerks. This person can be hired specifically for this task or can be another project staff member who has experience with data and data entry and can focus on overseeing this step in the process.

For an overview of the data entry clerks' and the supervisor's responsibilities, see ***Box 5.4.***

5.4 KEY RESPONSIBILITIES OF DATA ENTRY STAFF

The **data entry clerk's** responsibilities include the following:

☐ Understanding how to use data entry system

☐ Entering data efficiently and accurately

The **supervisor's** responsibilities include the following:

☐ Overseeing the data entry process

☐ Understanding how to use data entry system

☐ Training (or assisting with the training) of data entry clerks

☐ Assuring data quality control

☐ Providing guidance to data entry clerks to help them improve the quality of their work

---

Training Data Entry Clerks

If possible, training for data entry should take place over one to two days, before the assessment teams turn in their data, to make sure clerks are comfortable and well-practiced with the data entry system. This training may be less formal than training for assessors; however, it is no less important.

Your EGRA team should conduct the training using the actual computers and software that data entry clerks will be expected to use for data entry. The data entry supervisor and, if possible, the person who created the data entry system, should be involved in training the data entry clerks. The trainers should introduce the data entry clerks to the system in a step-by-step process, allowing the clerks to follow along and practice each section (see ***Table 5.1*** for suggested training topics).

Giving the clerks an opportunity to practice using the system several times will ensure their accuracy and speed when they begin entering real data. The trainers should spend time having the clerks practice entering data and then reviewing the data entered, pointing out errors and providing feedback. As with the assessor training, if funding permits, train more candidates than required, and then hire only those who work the most efficiently and accurately (i.e., work fast but with the fewest errors).

Table 5.1: Data Entry—Typical Training Topics
Welcome and Introductions   Introduce facilitators and trainees and the goals for the training.
Overview of the EGRA data entry system training   Introduce the EGRA instruments and explain the purpose and scope of the planned EGRA survey.   Provide an overview of the training program and explain that all trainees will be tested throughout the training until they reach an acceptable accuracy rate, preferably 100%.

Introduction to data entry system Introduce the system and give a brief overview of the skills and computer system requirements required to use the system.
Getting started Demonstrate and practice any procedures for logging into the system and saving files.
Demographic section Explain the demographic information on the first page of the EGRA instrument and allow for practice.
EGRA subtasks Explain each EGRA subtask and allow for practice.
Questionnaires Explain any questionnaire questions to be entered and allow for practice.
Practice and interrater reliability Using invented EGRA data that a team member marks, allow data entry clerks to practice entering data several times while trainers check for accuracy and provide feedback.

Entering the Data

Once your team has finalized the data entry system and sufficiently trained the data entry clerks, data entry can begin. In a well-lit room, the EGRA team should set up one computer for each data entry person. If you are using laptops, be sure to buy a mouse for each computer, as this will make it easier for data entry clerks to enter data, especially if they simply need to click radio buttons to record students' answers. The team should set up the computers so that data entry clerks have room to be comfortable, look at the paper EGRA instruments, and physically interact with the computer.

For time efficiency, data entry can occur as data arrive from the field. This may also help to provide instant feedback to the data collection teams in case they are making any mistakes during data collection. During data entry, the supervisor should check at least 10% of the test forms entered into the system. This "quality control" measures ensures that the data entered are accurate. Data entry clerks should have gained comfort with the data entry system before beginning actual data entry. However, since data entry can often be long and tedious, regularly checking data entry accuracy will prevent error due to fatigue. It is also recommended that the database creator or another person review the database after some data have been entered, to verify that there are not any problems with data entry.

Data Cleaning

Once your clerks have entered the data into a database, the process of cleaning the data can begin. Proper data cleaning begins with the team member or consultant responsible for the database checking to see that variable values are within normal ranges. This involves reviewing every test item and every questionnaire item against the data in the database. ***Box 5.5*** presents examples of what can happen during this process.

5.5 SAMPLE DATA-CLEANING ISSUES

Example 1: When the team member or consultant responsible for the database is verifying that the children are all listed as being in either grade 1 or grade 3, he/she finds that one child is marked as being enrolled in grade "33." One option is to mark that child's grade level as missing. However, given that the test was administered to children in grades 1 and 3, this student was likely in third grade. Therefore, this data item can be corrected to "3."

Example 2: When the team member or consultant responsible for the database is reviewing the variable for correct words per minute, he/she discovers that one student is reported as reading 323 words per minute, a value outside the normal range expected. This type of problem can occur if the assessor made a data recording error (recorded an incorrect value for time remaining), the data entry clerk transcribed the number incorrectly, or the software program is miscalculating the variable. The first step is to double-check that the variable was calculated correctly and to reprogram the algorithm if needed. If the calculation was correct, The second step is to refer to the original paper instrument, if possible, to see if there was a data entry error. If neither option results in a solution, then the team member or consultant responsible for the database should change the value to missing, since you cannot make assumptions about what was "meant" to be recorded.

During the data management and analysis process, it is also important for the team member or consultant responsible for the database to check for duplicate observations (students) in the database, in the event that the data entry clerks entered a particular test or batch of tests twice. If each student was assigned an ID number (refer to **Figure 5.1** above), this can be as simple as checking that all values of the ID variable are unique. If your team opted not to assign unique ID numbers, the team member or consultant responsible for the database can check for different observations that have the same school, grade, start and end times, and assessor, which usually indicates that the data for that student were entered twice. Additional cleaning may involve assigning values for school, district, region, or treatment (i.e., if the school was part of an intervention project or control group) to individual observations. the team member or consultant responsible for the database will then need to merge class sizes, determinations of treatment/control, and teacher or head teacher data into the student data in order to prepare the data for analysis in the next task.

The data cleaning process is often the most time-consuming portion of data management and analysis. In order to minimize the effort and time exerted on this task, your team should spend time working with the data manager sometime before the database is cleaned (the earlier the better) to develop a list of typical and recurring problems—such as alternate spellings of schools or students, or age or scores outside of possible range—in data cleaning. Designing a series of checks to flag potential data errors will result in data that are more consistent across multiple EGRA applications. Such careful cleaning of the data will help ensure that the data analysis is based on the most accurate data possible.

LESSON LEARNED:

Ensuring Your Data Are Representative of Your Population

Before you begin analyzing your data, you will probably need to weight your sample population data, or adjust it to reflect the overall population from which your sample was drawn.

Weighting refers to the process whereby you assign a value to your sample population, based on the size of the total population from which it was drawn. For example, if there are 30 schools in a district, and you select 5 for the EGRA survey, then each of the five schools has a weight of 30 ÷ 5, or 6.

In other words, each school sampled represents itself and 5 additional schools.

Weighting must be done for each level of sampling, including region, district, school, and student, depending on your sample. Analyzing data without the proper weighting can lead to incorrect results. Therefore, be sure to consult your data analyst to assist with the procedure.

Data Analysis and Presentation

After the team member or consultant responsible for the database has cleaned the data, it is time to review the data and interpret it. The most important thing to keep in mind as you analyze your data is that the analysis should correspond to your team's research questions. For example, if you conducted a national assessment to determine children's reading ability in grades 2 and 3, you will want to report on their skill level by grade in each of the subtasks administered. You will want to compare outcomes by grade to determine whether there are statistically significant increases from one grade to the next—i.e., whether the children are progressing. Similarly, if your research question was to determine whether a reading program has been effective in increasing children's reading ability, you will want to analyze whether there is a statistically significant difference between the reading ability of children participating in the program and those who did not, taking into consideration their results before and after the intervention. If your team does not have someone who can be a data analyst or is familiar with statistical analysis, be sure to consult a statistician or someone who has these skills, in order to ensure that your processes and interpretation of the results are correct.

Presenting Your Results

An EGRA report contains several components, not simply a list of data results. For example, it is useful to include an executive summary at the beginning of the report, so that people can quickly review the main findings. Your main report then will need to include an overview of your survey, including its purpose and an overview of the instrument. Before presenting the results, you also need to explain your sampling methodology and provide an overview of the sample population surveyed. Once you have presented data about the sample and sampling methodology, you will be ready to present the results for specific EGRA subtasks. The report should conclude with a summary of the findings, implications, and potential recommendations related to your research questions. For an outline of what is typically included in each section of an EGRA report see *Box 5.6*.

5.6 SAMPLE EGRA REPORT OUTLINE

The body of the report typically includes the following components, although the order may vary.

1. **Executive Summary**
    This should be a clear, succinct overview of the main findings from your data. It can include one or two key tables or a graph of information, but should not overwhelm the reader with too many statistics. Rather, it should include the most important results and what you would like your audience to remember.

2. **General Overview of Early Grade Reading and EGRA**
    Because many people may not be aware of EGRA or issues regarding early grade reading (especially in low-income countries), it is helpful to include in your report an overview of early grade reading and its importance. You should also describe the EGRA instrument, how it is administered, and why it is important to measure children's early grade reading skills.

3. **Purpose of Your EGRA Survey**
    This section should include the purpose of the study and the research questions it seeks to answer. You should provide an overview of the EGRA subtasks included in your instrument and explain why they were included. You should also explain certain features of the language tested, as well as any significant policy or program-related information. For an impact evaluation, you would want to provide a detailed description of the program that you are evaluating.

---

4. **Sampling Methodology**
   The description of your team's sampling methodology should include an overview of the sampling stages (e.g., by region, then district, then school, and then students) and particular methods used (e.g., cluster sampling, random selection of schools and students).

5. **Description of Sample**
   This section should include the overall size of your sample, disaggregated (or broken down) by each relevant subpopulation. Additionally, you should provide some descriptive information about your sample, such as the mean age of the students; the socioeconomic status of the group; the breakdown of the group, such as by region/district or urban/rural classification; and an overview of school, principal, and teacher characteristics (if collected). All of this information can help the reader to better understand the population surveyed and possibly provide insight into the results.

6. **Presentation and Analysis of Results by Subtask**
   This section will review students' results on the EGRA instrument, usually in order in which the subtasks were presented during testing (e.g., letter identification, then familiar word reading, then oral reading fluency). The way in which you present the results for each subtask or skill assessed may vary, but typical data include the percentage of children who scored "0" and the average, or mean, for a given task. Determine which tables and graphs to include to organize and make the data visually appealing (see the next subsection of this chapter).

7. **Conclusions**
   This section should link together the different data and provide an analytical overview of the results. This conclusion should also reference the particular context of the study and the sample, areas for further research, and suggestions or recommendations for "next steps," such as expansion of a project, improvements in teacher training, etc. Always base these conclusions on the data results and tie them to the research questions.

Guidance on Presenting Data on Your Sample Population

You can present information about your survey in tables and graphs, as illustrated in the examples below. (Note: Data presented below do not reflect actual EGRA data but have been developed for demonstration purposes only.)

Table Example A tells us that the sample sizes for each region and gender were relatively equal, with the number of girls slightly less than the number of boys. It is important for you to keep these numbers in mind as you review the data for each outcome variable (such as correct letters per minute). You will need to verify that each subtask's results includes the entire sample population (or almost all of it, as it is common for a few observations to be missing due to mistakes in either scoring or data entry). If, for example, you see that a particular subtask has results reported for only half the students, then you will need to verify that all data that the field teams collected were entered by the data entry clerks and reviewed by the data analyst.

Table Example A: Sample size, by gender and region

Gender	Region		Total
	Region 1	**Region 2**	
Male	435	396	831
Female	405	375	780
Total	840	771	1,611

Table Example B presents interesting information regarding the average age of children in the same grade in different regions. From the table we can learn that students in Region 1 are progressing through the grades at approximately 1 year per grade, where as students in Region 4 take approximately 1.9 years between grade 1 and grade 2, and 1.4 years between grades 2 and 3.

Table Example B: Average student ages, by region and grade

Region	Grade 1	Grade 2	Grade 3
Region 1	8.0	8.9	9.9
Region 2	8.1	9.6	10.7
Region 3	7.9	8.8	10.1
Region 4	7.3	9.2	10.6
Region 5	7.6	8.8	9.4
Region 6	7.7	9.2	10.3

Graph Example A shows the percentage of students in each region who scored zero on the oral reading fluency subtask. This analysis tells the reader that a large number of students in each region were unable to read a single word. Region 5 had the most students, 67.71%, who scored zero; however, all regions had a significant issue with students not being able to read, according to these data.

Graph Example A: Oral reading fluency—percentage of zero scores, by region
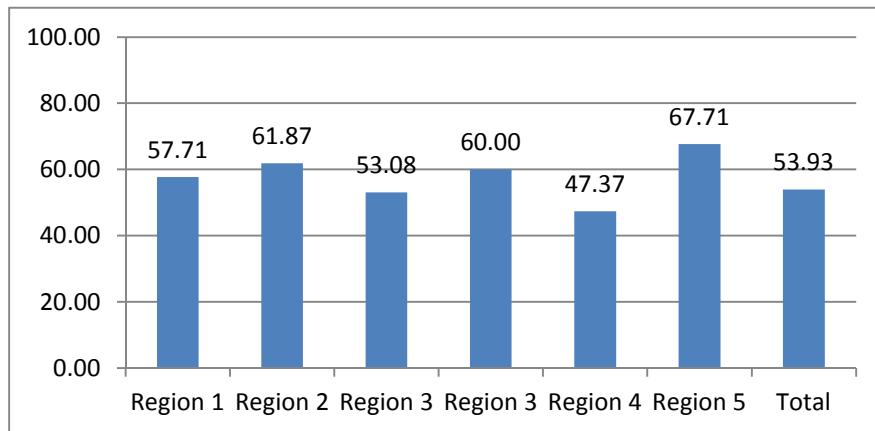
One final example is *Graph Example B,* which shows the overall mean or average score for each subtask. This graph shows how students in this sample performed across all subtasks at once. The data show that students overall did not perform well on early reading skills. Students knew few letter names and could read few words in isolation and few words of the short story in the oral reading fluency subtask. A graph such as this one can help stakeholders see how low scores on early skills lead to low scores on higher-level assessments.

Note that the scores do not have exactly the same units. For example, the letter identification score is correct letters per minute, while the word-level subtask scores are measured in correct words per minute. You would need to explain this feature clearly to the audience as part of the presentation of data.

Graph Example B: Overall mean scores, by subtask
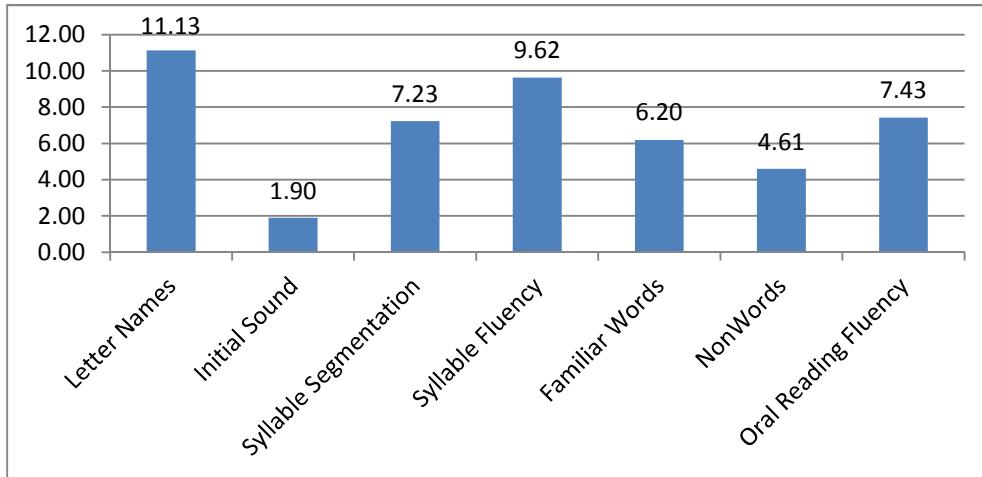
TIP: It is particularly important to present descriptive statistics about your population if you are evaluating a project, as these statistics will help you to determine if the children in the project (or treatment group) and those in a control group (i.e., those who did not participate in the project) are similar. If they are statistically similar, you will have a reliable control group and therefore reliable results.

Special Guidance on Reporting Subtask Results

One of the most important parts of reporting is presenting the results for specific EGRA subtasks. *Table 5.2* includes data commonly reported for each subtask, which can help guide your EGRA team. Note that this information is not exhaustive, and the way in which you present the data will depend on your research questions and the complexity of your sample.

Table 5.2: Presenting Results by Subtask	
EGRA subtask	**Data to present**
1. **Correct letters per minute** 2. **Correct words per minute** 3. **Correct nonwords per minute** 4. **Phonemic awareness**	• Mean score (average number) of letters, words, or sounds correct in one minute, disaggregated by groups (grade, region, gender, etc.) • Percentage of children scoring "0" (i.e., percentage of children who could not correctly identify any letters, words, or sounds in one minute)
5. **Listening comprehension**	• % of questions answered correctly, disaggregated by group (grade, region, gender, etc.)

6. Oral reading fluency with comprehension	• Mean number of connected text words per minute (i.e., oral reading fluency), disaggregated by groups as appropriate (grade, region, gender, etc.) • Percentage of children scoring "0," or % of children who did not correctly read any words in a passage of text • Average number/percentage of questions answered correctly (This can be calculated based on the total number of questions, or the number of questions attempted. This is because children will only be asked questions if they have read the corresponding text) • Percentage of children reading with 80% comprehension (an indicator established by the Fast Track Initiative, or FTI)

You can present data for each subtask in either table or graph format. Tables help to summarize large amounts of exact data, giving the reader the ability to spot complex relationships. Graphs are better at highlighting overall comparisons or trends, or showing how parts relate to the whole.

For example, from *Table Example C* below, we can learn the mean correct words per minute (cwpm) by region, gender, and school type. In addition, the table notes the standard error (since the data have been "weighted"), confidence interval, and *p*-values, which are important statistics to include. The *p*-value indicates whether the differences between groups (such as boys and girls) are statistically significant, and not due to "chance." The table indicates that there is a statistically significant difference in the mean cwpm between boys and girls in both regions.

Table Example C: Weighted scores on the oral reading fluency subtask (correct words per minute), by region, gender, and type of school

Region	Characteristic	Mean correct words per minute (cwpm)	Standard error	95% confidence interval		*p*-value	Weighted sample size
Region 1	Male	26.2	3.5	8.9	23.5	0.020**	1423
	Female	20.7	2.2	6.1	15.2		
	Public	22.4	2.9	6.4	18.5	0.024**	1423
	Private	34.0	3.4	17.0	30.9		
Region 2	Male	38.5	3.8	20.6	36.5	0.092*	1467
	Female	32.6	3.1	16.0	29.1		
	Public	37.0	3.3	20.1	34.0	0.77	1467
	Private	34.7	7.3	9.7	39.8		

*significant at 10% level (*p* < 0.1) **significant at 5% level (*p* < 0.05) ***significant at 1% level (*p* < 0.001)

Table Example D summarizes all of the subtasks across two periods of time. Unlike Table Example C, it includes information on the sample size *(N),* the mean scores, and the standard deviation (since these data are not weighted). The table allows the reader to see changes in the EGRA scores over time.

Table Example D: Baseline and final scores for all subtasks

EGRA subtask	Baseline, October 2011			Final, June 2012		
	N	**Mean**	**Standard deviation**	**N**	**Mean**	**Standard deviation**
Letter identification	3,454	45.5	26.3	3,452	60.5	25.3
Phonemic awareness	3,450	5.2	1.9	3,389	6.2	2.3
Familiar word reading	3,425	10.4	23.1	3,455	24.1	22.1
Nonword reading	3,396	3.6	5.8	3,425	8.7	12.8
Oral reading fluency	3,452	21.6	21.3	3,450	42.6	30.4
Reading comprehension	3,389	30.1%	25.7	3,454	44.6%	32.9
Listening comprehension	3,455	35.7%	20.5	3,396	76.1%	29.3

A graph can help the reader notice information that might otherwise be "buried" within a table. For instance, ***Graph Example C*** below presents the percentage of students in each region scoring "0" on the nonword reading subtask. The graph visually emphasizes the fact that a substantially larger percentage of girls than boys scored "0," or failed to read even one nonword correctly. This information might have been less obvious—or the difference less "shocking"—if presented only in a table. A graph is thus a useful way to present information that you want your audience to remember.

Graph Example C: Percentage of children scoring "0" on the nonword reading subtask, by region and gender
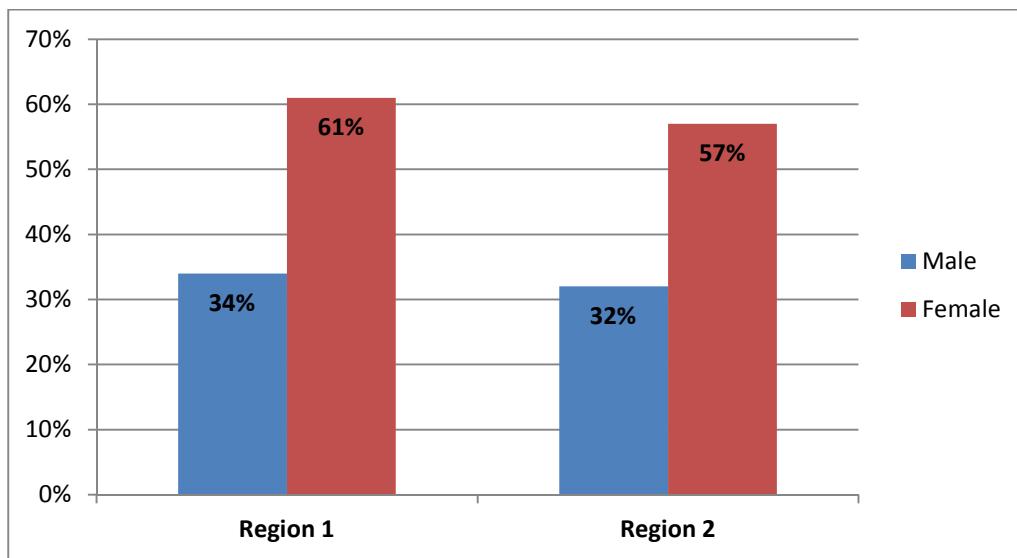
It can be useful to present the mean correct letters or words per minute for all children sampled as well as the scores for only the children who read enough to be allowed to continue the task (i.e., did not score "0). If you were to report only on the children who scored above 0, it would create a somewhat distorted picture of the sample, since it would exaggerate how well children were reading. However,

"burying" children who could not read at all in the average would prevent readers from understanding the reading fluency of those who could read something.

Breaking data into categories can also be useful. For example, *Graph Example D* indicates the percentage of students in each region who scored 0, but it also provides information on the percentage of students who read some or many words. Therefore, the audience can clearly see which category includes the largest and the smallest percentages of students.

Graph Example D: Percentage of children reading 0, 1–25, 25–60, and >50 correct words per minute (cwpm), by region
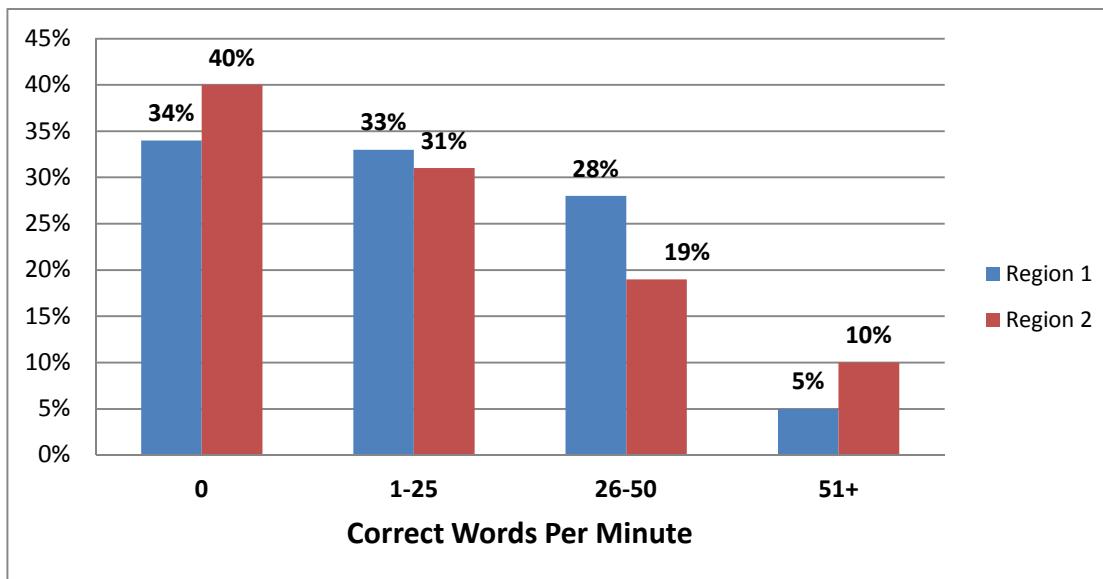
TIP: Note that graphs which present data by using trend lines are not appropriate for showing mean scores or the percentage of "0" scores for a particular test. (Rather, line graphs are used to track data over time.)

Guidance on Preparing Conclusions and Recommendations

The conclusions and recommendations section of the report is an opportunity to associate and relate different data and to provide an analytical overview of the results. Your team should reference the particular context of the study and the sample when explaining results. You should also tailor the recommendations to the type of EGRA survey you conducted.

In making conclusions and recommendations, consider the following:

- your survey results

- supplemental information collected as part of your team's EGRA survey (e.g., teacher and principal surveys) or other studies related to various aspects of the education system (e.g., teacher training and classroom instruction)

- a particular country's policies and practices.

For example, suppose your EGRA results reveal that students performed well on the letter identification subtask but poorly on the nonword reading subtask. This might lead the team to conclude that teacher training and classroom instruction need to focus more on blending and decoding. This conclusion would be strengthened if classroom observations (conducted at schools in which the EGRA instrument was administered, and in the classrooms of students who were tested) found that teachers placed more emphasis on text memorization than decoding. Such results could furthermore be considered along with current teacher training practices and content.

In another case, EGRA results might show that students performed poorly on the subtasks related to comprehension. This might lead to the conclusion that teachers should focus instruction on comprehension strategies. In a case in which children were being taught in language that was not their mother tongue, the data may support a conclusion that children could not understand what they were reading. In a third scenario, where children were being taught in their first language by teachers who were native speakers of that language, you may need to further analyze the curriculum and classroom instruction more closely in order to make accurate, context-specific conclusions and recommendations. *Box 5.7* presents some key points to consider as you prepare your analysis report.

5.7 KEY AREAS FOR REFLECTION AND ANALYSIS

When analyzing your data and making conclusions, reflect on what the data tell you about the effectiveness of the following key areas:

☐ Curriculum guidelines regarding reading

☐ Teaching training and practices around reading

☐ Language-of-instruction policies and implementation

☐ Student learning materials

In some cases, you will find that you cannot draw firm conclusions without conducting further research. For example, your EGRA results may reveal that children were not reading fluently. But you may not be able to state the cause of the problem without having more information about whether students had texts to practice reading, for example; or whether they had books, but of poor quality. On the other hand, the textbooks may have been good, but they were not in a language students could understand. Other factors that might require further research could be whether children were allowed to take books home, and whether teachers had been trained to use them. Therefore, understanding the local context plays an important role in what you can state in terms of causes and effects.

The political, linguistic, and economic context of your EGRA survey will affect the nature of your team's recommendations, as will the purpose of the EGRA survey. Another influence might be the relationship you have with the Ministry of Education and other stakeholders. Nevertheless, as a result of your data analysis, your team may suggest areas for improvement or recommend concrete "next steps," such as expansion of a project, improvements in teacher training, or areas for further research. In some cases, particularly in the situation where an organization has conducted an EGRA survey to evaluate its own project, recommendations may focus on internal project-related improvements and dissemination of best practices. In other cases, the recommendations will operate more as external advice to another stakeholder, most commonly the Ministry of Education. Regardless, all of your suggestions and recommendations should be based on your data.

CHAPTER 5: CHECKLIST

At the completion of Data Management and Analysis, your team will have achieved the following:

- ☐ Data entry system developed
- ☐ Data entry clerks and supervisors hired and trained
- ☐ EGRA survey data accurately entered cleaned and weighted
- ☐ Data for each EGRA subtask analyzed based on survey purpose and research questions
- ☐ Analysis report written

Chapter 6: Post-Results Dissemination and Action

While EGRA results demonstrate how children are reading, results alone cannot effect positive change. One of the main values of an EGRA survey is the ability to leverage the results to improve the reading abilities of children in your team's context.

In most cases, communicating and disseminating results is an important first step to ensuring your EGRA survey has the desired impact. Therefore, after you have designed, implemented, and analyzed your survey, your team should ensure that the results are used strategically and accepted by key stakeholders. This means, for example, that you can use the results (1) to raise awareness about the realities of children's reading abilities, (2) to influence educational policy, or (3) to improve reading interventions. As stated in **Chapter 1,** depending on the original purpose of the EGRA survey, EGRA teams can also use survey results to measure the impact of a program or to make instructional decisions at the school or classroom level.

As in previous stages in the EGRA process, the ways in which your team approaches this final stage will depend on your context, goals, and purpose. The types of dissemination and post-results activities and the target audiences will vary according the purpose of conducting the EGRA survey. Your team or organization's role in the process will also be a factor.

Since the objective of your assessment will have been decided during pre-implementation planning, your team may already know the primary audience for results dissemination and have a good idea of how you wish to leverage your results to achieve your goals. So, even though dissemination cannot fully commence until after analysis has revealed your results and your team has produced a technical report, your EGRA team can start preparing for results dissemination and other post-results early on in your EGRA process. At the same time, your team should remain flexible and also allow for your findings to influence your post-results strategy.

> **LESSON LEARNED:**
>
> **EGRA Results Alone Cannot Create Change**
>
> In South Africa, the EGRA team shared results regarding an EGRA impact evaluation of a successful pilot reading intervention program on reading abilities through meetings with the national Department of Basic Education (DBE) and USAID; the participation of EGRA team members in DBE roundtable discussions; and a press release, which generated a degree of interest in the print media and several radio interviews. However, at present, the national Department of Basic Education has not indicated any plans to implement EGRA or the successful reading intervention program in their current or adapted form. If the team had the funding and government permission to disseminate EGRA results that showed the positive impact of the pilot reading intervention, the government might have been more responsive to using the results to inform national policies and programs.

This chapter presents guidance on:

- Key roles in dissemination of results

- Role of EGRA survey's purpose on choosing dissemination activities

- Role of target audience in choosing dissemination activities

- Possible dissemination activities

Key Roles in Dissemination of Results

Box 6.1 outlines the roles and responsibilities of the people who will plan, organize, and carry out appropriate dissemination activities. Their work begins after your team has analyzed the survey data and written a report about the results.

6.1 KEY ROLES IN DISEMINATION OF RESULTS

Team leader: Often this person will co-facilitate dissemination presentation(s). Team leaders may be responsible for developing a context-appropriate dissemination strategy, overseeing development of relevant materials, and coordinating dissemination activities. Level of involvement will depend on the project and the team leader's relevant experience.

Reading specialist: This specialist often will co-facilitate dissemination presentations with other members of the EGRA team or ministry officials. It is strongly suggested that you retain the same reading specialist who participated in the early stages of your team's EGRA. The reading specialist may also be able to provide technical assistance to the Ministry of Education, if such support is included in your post-results strategy.

Project staff or subcontractor: These EGRA team members are responsible for coordination and administrative tasks, including organizing meetings, workshops, and social advocacy events.

Communications staff or subcontractor: If your team has elected widespread dissemination of results, or other post-results activities related to mass media or community mobilization, you may need to hire technical expertise. This could include communications consultant(s) and/or a media production company.

Dissemination Activities

The means by which the results of an EGRA survey are disseminated can look very different from one survey to another. For example:

- In some cases the project's funding organization will dictate how results should be disseminated.

- Other projects will rely on ministry interests or requests for type of information.

- Still other survey results may remain within the project, used for planning purposes rather than for public dissemination.

In general, dissemination activities will be determined by two main factors: (1) the purpose of your EGRA survey and (2) the audience you wish to reach. The statements you prepared early in the process about the purpose of your survey will drive the end goals of the dissemination activities and who the target audience should be. Knowing the audience, your team can then decide what activities best make sense to accomplish your goals with that audience and how to present the information. It is important to keep in mind that no two EGRA surveys are necessarily alike. Each EGRA survey may have different activities and even similar activities may have different end results, depending on the audience and country context. If your team members are not local residents of the area where the survey was implemented, collaborating with someone local and knowledgeable about the context will be key to ensure the success of any dissemination activities.

Purpose	➡	Audiences	➡	Activities

Purpose

Again, the purpose of your EGRA survey goes back to the pre-implementation stage of the EGRA process. For example, if your EGRA survey was a national baseline to inform the government on how students are learning to read throughout the country, a formal workshop with high-level Ministry of Education staff may be appropriate. If the purpose of your survey was to help design a new project or intervention based on students' needs, you may disseminate the results in a report or in a small-group meeting with those who are going to design the project or intervention. ***Table 6.1*** below gives examples of different types of surveys and their possible purposes, along with a brief case study to illustrate the outcomes from one real-life survey.

Table 6.1: Types of EGRA Surveys, Possible Purpose, and Sample Cases		
Survey Type	**Purpose**	**Case Study**
Reading "snapshot"	This type of EGRA can raise awareness about reading challenges and motivate policy makers, ministry staff, donors, and civil society to take action.	In **Haiti,** an EGRA assessment was able to provide a snapshot of reading competency in an environment dominated by nonpublic schools of highly variable quality and by too few statistics. After the EGRA results were published, a reading pilot took place in all participating schools. The dissemination of EGRA results raised the Ministry of Education's level of interest in generalizing this pilot to more schools.
National or system-level diagnostic	This type of EGRA can serve as an excellent way to improve policy, curriculum, and pre-service and professional development programs for teachers. The primary audience is usually donors and Ministries of Education, but dissemination and activities targeting other audiences can also be important to promote widespread awareness about the importance of early grade reading; increase pressure on policy makers; and encourage more positive behaviors at the community, school, and household levels.	In **Gambia,** the Ministry of Education conducted an EGRA survey in 2007 with the help of the World Bank and RTI International. Aside from providing baseline data, the assessment was included in the Ministry of Education's *Medium Term Plan* and helped the government pursue appropriate policies intervening strategies to increase students' reading inabilities. At the national level, the EGRA results influenced a mother-tongue instruction policy. In addition, the Ministry of Education plans to implement national campaigns on reading with a view to involving parents and also providing books that children can read at home.

Table 6.1: Types of EGRA Surveys, Possible Purpose, and Sample Cases		
Survey Type	**Purpose**	**Case Study**
Impact evaluation	This type of EGRA evaluates the effectiveness of interventions aimed at improving reading instruction and learning outcomes. Aside from being used to raise awareness, results from this type of EGRA can be used to spread awareness about best practices, influence policies, and encourage scaling up of successful interventions.	In **Liberia**, the EGRA team shared formal EGRA results from the baseline, midterm, and final assessments with the clients, government officials in the Ministry of Education, donors, and some teachers. At the community level, the EGRA team created several radio shows, during which district education officers in 15 districts announced on the radio that reading results were poor. They also provided tips to teachers, parents, and communities as to what they could do to improve teaching.
Classroom assessment	This type of EGRA is intended to inform instruction at the classroom level.	Also in **Liberia**, the EGRA team taught teachers how to conduct mini-EGRA in classrooms and disseminate results using student reading report cards and a school reading report card.

Each type of survey uses the EGRA results in a different way and can have different outcomes, as can be seen Table 6.1. This is why considering your purpose at the planning stages is key to the entire process.

Audiences

Once your purpose for the survey is clear, your team will need to decide what the target audience is. Target audiences are those groups of people who make decisions related to your purpose or priority objectives, or who have the potential to influence relevant decision-makers. They can help you raise awareness and achieve your objectives. Examples of target audiences for results of an EGRA survey are

- ministry officials

- project staff

- donors

- teachers

- civil society organizations

- media representatives and outlets.

All of these groups can make decisions or influence the quality of early grade reading education in some way. *Table 6.2* below lists different possible audiences and what kinds of influence they may have on early grade reading. Note that many of the audiences can have overlapping members, so it is important to define your target audience as precisely as possible.

Table 6.2: Overview of Potential Audiences		
Level	**Audience**	**Relevance**
International	Donors	Donors can help support advocacy efforts, innovative pilot reading interventions, future assessments, and scaling up of best practices. Donor support is crucial, considering the limited resources of Ministries of Education in many developing countries. Donors can help leverage EGRA findings, particularly when governments are unable or unwilling to take action.
	Academics or practitioners	Academics and other practitioners are often interested in EGRA survey findings because they provide valuable information about learning achievements and educational issues in many under-studied contexts, and they help identify best practices.
National	Ministry of Education	The EGRA survey process and results can encourage ministry officials to do more to emphasize reading as a foundational skill. EGRA results can be a catalyst for a variety of government actions regarding early grade reading and also can increase interest in incorporating EGRA into national educational assessments.
	Budget authorities	EGRA results may help convince the government authorities that allocate funding to direct more public resources to the Ministry of Education for early grade reading.
	Teacher unions	Teacher support for early grade reading and related interventions is crucial. Outreach and collaboration with unions can influence teachers' perceptions of EGRA as a platform for positive change rather than as a means to criticize teacher performance. Teacher unions can help convey the importance of early grade reading, grade-appropriate expectations, and key findings to teachers as well as other audiences.
	Civil society and media	Civil society and media can help raise awareness, put pressure on decision makers (i.e., government) and, in some cases, promote sustainability.
Regional	Department or bureau heads	Provincial/state or district-level educational authorities are an important audience and partner, especially in cases where educational services are decentralized.
Community	Community leaders	Community leaders can help raise awareness about reading and good practices among community members—especially parents—and also exert pressure on local authorities and schools.
	Parents	Parents have a huge influence on children's reading habits and outreach. Interventions targeting parents can raise awareness about age-appropriate reading expectations, encourage reading in the home, and increase pressure on schools and policy makers to prioritize reading.
	Civil society	Civil society can support community-level dissemination and activities and also help increase accountability at the grassroots level.

Table 6.2: Overview of Potential Audiences		
Level	**Audience**	**Relevance**
School	Principals	Principals need to be aware of the importance of early grade reading and good practices reading instruction in order to best support students, teachers, and parents. Principals can also be involved in interventions.
	Teachers	Teachers are a crucial audience to target for interventions and awareness-raising about early grade reading, age-appropriate expectations, and good practices for reading instruction.

Once you have determined your target audience, it is essential to learn as much as you can about *what they care about* in relation to reading. If your team is not from the assessed area, it is good to consult someone who is local to the context in order to help determine what each audience is concerned about. Ask: What does this particular group value in relation to early grade reading? What barriers or ideas will keep them from accepting the results? Understanding the answers will help your team know what activities are best and how to frame the conversation with them.

For example, parents are likely to value improving early grade reading instruction for their children. However, they may be unconcerned or hesitant about practicing reading at home with their children, due to lack of time or knowledge. Thus, using the EGRA survey results to get parents to support a policy-reform vote to improve teacher education might be easy, but convincing them to read to their children at home every night might be more difficult.

Knowing what your audience cares about and what will turn them off will help you know how to talk about EGRA results and what activities are most likely to get a positive response from your audience. *Box 6.2* presents a case study to illustrate how audience assessment and dissemination played out in one country.

6.2 ADDRESSING MULTIPLE AUDIENCES: A CASE STUDY FROM SENEGAL

In **Senegal**, an EGRA team implemented a national-level diagnostic assessment of reading for the William and Flora Hewlett Foundation. When the results were available, they were first presented to Ministry of Education officials at a closed meeting. Their questions and concerns were then integrated into the final report, which was distributed more widely to development partners, NGOs, etc. The EGRA team chose to focus communications activities on communities and parents, asking them to get more involved in their children's education, in the hopes that these local efforts would create pressure on government institutions to initiate change at the systemic level.

To support a more civil-society driven advocacy and communication strategy, the EGRA team hired a local management consulting company to conduct a rapid communications analysis. They then extended the results of the diagnostic to civil society partners and donors in a second dissemination meeting. The aims of this second meeting were to discuss the results of the assessment, to learn how to interpret and communicate the results to different stakeholders, and to develop some suggested dissemination activities.

Workshop participants were invited to submit proposals for activities funded by mini-grants. From June through October 2010, six local nonprofit organizations used grants to conduct a range of exploratory activities to promote reading, including producing radio programs and television documentaries, publishing newspaper and online articles, holding community meetings, designing and distributing posters, painting murals in strategic locations, and leading community music and theater programs.

The EGRA team in Senegal also involved a private-sector social marketing firm to launch additional, high-profile communications activities to coincide with events such as International Literacy Day (September 8) and the start of the new school year. One activity was a reading tour that involved 20 well-known Senegalese celebrities and opinion leaders, who made school visits in five major cities and talked about the importance of literacy. This drew the attention of the media and community members, who wanted to know why these celebrities were visiting their school. In response, the organizers gave them information about the EGRA results and the campaign to improve reading.

Validation of Results

In general, before you make public any EGRA results related to public education, you should hold a discussion with the Ministry of Education (or the relevant government institution) regarding validation of the results. Depending on the context, post-results validation processes vary in procedure, formality, and time frame. In some cases, validation is secured after one informal meeting and, in other cases, several meetings are necessary to ensure that the government does not contest the results. This process is important to maintain good relationships with the government and Ministry of Education officials and to help set the stage for a collaborative approach to EGRA findings.

Your team should follow appropriate protocol when arranging meetings with the Ministry or Education and adequately prepare for all validation meeting(s). In most cases, teams provide ministry officials with copies of the full technical report and other explanatory materials. Your team may also wish to prepare a more concise (e.g., two pages) summary of your findings, written specifically for a government audience. Your team's presentation of results to a government audience should be well thought out. While your presenters should honestly convey your EGRA survey's findings, your team will also need to be mindful of any possible sensitivities government officials may have, if results reflect negatively on their educational services and could be potentially politically threatening. The intention of a validation meeting is not to be antagonistic but to gain government approval of the results, increase support for the importance of early grade reading, and encourage public commitment to positive educational reforms.

In some cases, validation may not be necessary if the ministry has been closely involved with the process or has given its permission ahead of time. Also, if your team has conducted an internal project-focused evaluation, you may not wish to share initial EGRA results publically.

LESSON LEARNED:

Government Support May Vary

On rare occasions, governments have disputed EGRA survey results and not allowed them to be released to the public.

One way to proactively secure government officials' support is to involve them in the process, including authorship of the technical report and dissemination.

For example, in Mali, several different EGRA surveys, with different donors and purposes, have been conducted by the same EGRA team. This team ensured the participation of Ministry of Education officials in the planning, design, and implementation of the assessments; and then asked these same officials to present the results to their colleagues within the ministry. The process required significantly more time to complete but allowed the ministry to own the results.

TIP: Your EGRA team may want to create a 10-minute video about the importance of learning to read in early grades to serve as a tool to aid the dissemination of EGRA results and related advocacy using a video production firm and the help of a reading expert to create the script. Examples of early grade reading advocacy videos for Peru, Nicaragua, and Liberia can be found on the EdData II website, www.eddataglobal.org.

Dissemination Activities

Once your team has a clear idea of the purpose of your survey and your target audience, you can think through and organize the activities to disseminate the results of the EGRA survey.

There are multiple ways in which teams disseminate EGRA results. The activities your team employs will depend not only on your objectives and your target audience, but also on budget and time constraints, and project scope and goals. *Table 6.3* shows some of the possibilities of activities that could be useful depending on purpose and audience. However, the table is not meant to be an exhaustive list. Some of the main activities listed are further explained below.

Table 6.3: Your EGRA Survey—Type, Purpose, Audience, and Activities			
Survey Type	**Purpose**	**Audience**	**Possible Activities**
Reading "snapshot"	Raise awareness, mobilize communities	Ministry, donors, civil society, community leaders, academics, practitioners, teacher unions	Policy dialogue workshop Social mobilization or mass media campaign Policy brief Journal article Conference presentation
National or system-level diagnostic	Policy reform, intervention, or program design	Ministry, donors, civil society, community leaders, academics, practitioners, teacher unions	Policy dialogue workshop Curriculum- or standards-review workshop Social mobilization or mass media campaign Project design workshop Policy brief Press release Journal article Conference presentation
Impact evaluation	Inform on impact of project, inform program revisions	Project staff, donors, ministry, academics, practitioners	Project progress meeting Project revision meeting Media event Press release Journal article Conference presentation
Classroom assessment	Inform instructional decisions, inform on student progress	Teachers, principals, parents	School community or parent meeting Teacher professional development workshop

Policy Dialogue Workshop

A policy dialogue workshop can take many different forms. Typically this workshop brings together ministry officials, experts in early grade reading, and possibly donors or other stakeholders to hear the results of the survey and discuss implications for policy change based on the results.

Policy dialogue workshops are best facilitated by a team member or consultant who has experience talking about data and policy with high-level officials. The project staff in charge of administrative work can facilitate the organization and logistics of the workshop, much like the adaptation workshop covered in **Chapter 2.**

This workshop is most productive as a very interactive conversation between the project staff or consultant(s) facilitating, the policy decision-makers, and any donors who might be attending. Therefore, having time for discussion as a whole group and working in small groups is helpful. A workshop can last anywhere from a couple of hours to four or five days, depending on the project and the ministry. Once your team has discussed the study methodology and findings, consider time to have real conversations about the implications for language of instruction, curriculum, benchmarks, standards, professional development of teachers, or even other local organizations and projects that could be helpful in implementing needed change. A sample agenda for a three-day policy dialogue workshop can be found in **Annex 19: Sample EGRA Findings Workshop.** The agenda is just one example and is not meant to be a template that should be followed. The topics and format will depend highly on the country and project.

Policy Brief

A policy brief is a one- to three-page document that outlines a rationale for choosing a particular stance on a particular policy. It should be written by someone on the team or a consultant who has had experience writing persuasive pieces based on data. This person can be the same person who writes the report or someone with appropriate technical knowledge.

The policy brief can use EGRA survey results used to raise awareness about why policy makers or other stakeholders should support an emphasis on early grade reading in general, or other policies that may affect early grade reading, such as teacher professional development or materials development and distribution. The brief should focus on achieving one big goal, and all aspects of the brief should support that. You will want your audience to understand the language used, so if you use technical terminology, be careful to verify that your audience will understand or explain the term clearly. Also, using graphs to illustrate the data rather than lengthy paragraphs filled with numbers can be helpful.

The brief should explain the rationale for the policy position, and then support it succinctly with evidence from the EGRA results. An example of a policy brief can be found in **Annex 20: Sample EGRA Brief.** This brief was written based on results of an EGRA survey conducted in Kenya 2009 funded by the William and Flora Hewlett Foundation and was part of dissemination activities for that project. Once your team has finalized the brief, you can send it to the appropriate ministry staff or any stakeholders who might make decisions about the policy or influence the decision.

Social Mobilization Campaign

Social mobilization campaigns can take on many forms, depending on the target audience. In many cases, social mobilization will involve several activities—from radio programming to video production, billboards, community events, and brochures and other informational materials. In many cases it is a good idea for your team to work with a communications firm or expert when planning for social mobilization campaigns.

Generally these campaigns raise awareness around a certain topic, such as the importance of children learning to read early; or you may be asking a group of people to take some kind of action, such as encouraging parents to get involved with their children's education. Here it is essential that your team or the people designing the campaign fully understand your audience. Holding initial focus groups at which you ask members of your target audience about issues related to the campaign can be a good way to make sure your team knows what is important to your audience, so you can focus events and content appropriately. It can also be very helpful if the campaign is seen as local and any people who are featured in the campaign are members of the group you are targeting. It will much easier for your target audience to relate to and follow the appeal of a member of the same group than someone perceived as an outsider.

Project Revision Meeting

This meeting may be internal and/or external to your project. Generally this meeting will use the results of the EGRA survey to look at a project and make decisions based on the results about changes that can be made. Much like the policy dialogue workshop, this meeting can last a couple of hours or several days. If it is an external meeting, it may involve appropriate ministry staff, donors, or other stakeholders associated with the project. Your team will organize this meeting in the same way as the others: based on audience and protocol. The facilitators of this meeting should be team members who are comfortable talking about the data and its implications for the project. They may require the help of the reading expert in order to properly address issues and project-implementation changes.

Meetings or Events with School Community or Parents

You can use meetings or events that engage the community, especially parents, as part of a social mobilization campaign or simply as a way to inform parents and communities about their schools' performance.

Using EGRA data—whether from a national survey by a large part project or from a teacher-administered classroom check of student progress—can be a very powerful means of encouraging involvement in school and school accountability. A member of the team who is comfortable talking about the implications of the data and the importance of early reading should facilitate this meeting or event. It is also useful to ask teachers or head teachers to be involved in some way. If this meeting is for social mobilization, simply presenting the data may not be useful. It may be better to organize an event, such as a contest involving reading, or a "book flood" in which books are brought to the school for parents and children to read together and take home, as well as giving a brief presentation of the EGRA survey results and what they mean for the children.

If it is classroom-level EGRA results that you want to disseminate, teachers or head teachers should be the main facilitators, with some support from knowledgeable project staff or a reading expert. Your team should disseminate these data at the classroom or school level, not at the individual level, to avoid harsh reactions from parents. If you must disseminate individual-level data, it is best to do this privately through a report card and to have a conversation with the parent or student about the purpose of the report card, focusing on its usefulness for monitoring the student's progress toward a goal (rather than judging the student). Your team leader or knowledgeable project staff can work with the school on how best to accomplish this.

Teacher Professional Development

Teachers may receive various kinds of professional development both before and during their tenure as a teacher. Often professional development asks teachers to use a new program or change their way of teaching something. For teachers this means stepping outside of what they know; it can be difficult or even overwhelming, leading to resistance. EGRA survey results can be a helpful motivator to make a case to the ministry and to teachers for a need to change instruction, curriculum, or pedagogy.

EGRA survey results can allow teachers and higher-level ministry staff to understand that there is a need to change. If you are managing a project that is also facilitating teacher professional development, use the introduction period to have the facilitator or someone else on the EGRA team briefly present the most salient data.

6.3 ENSURING SUSTAINABILITY: A CASE STUDY FROM NICARAGUA

In **Nicaragua,** the EGRA team used a series of three policy-dialogue meetings to disseminate results of the EGRA pilot and full survey and to create space for change and leveraging ideas from the Ministry of Education.

In January 2010, the EGRA team held a final dissemination event that corresponded with the completion of this particular EGRA project. It represented a transition from the EGRA project to a locally driven and sustainable campaign to raise civil society's awareness about what is possible in early grade reading development. It was a media event that featured the official launch of a social marketing video, which brought together local NGOs, donors, the private sector, the Minister of Education, and the local media, with the purpose of raising awareness nationally that all students can and should learn to read by the end of second grade. The video also complemented the Ministry of Education's "Save the First Grade" campaign, which included plans to train teachers and support first-grade students in learning to read.

According to USAID, media coverage of this event was unprecedented, thanks to the efforts of a subcontracted publicity firm. Local newspapers, television, and radio covered the event in hopes of bringing this campaign and the social marketing video to the forefront of the Nicaraguans' consciousness.

The final presentation of the event was facilitated by the video production firm. Inspired by the making of the video, the firm developed an idea for a locally driven campaign to help further raise awareness about the importance of early grade reading. Now in its second year, the "Todos a Leer" campaign is completely locally run and funded by private sector donations. The campaign involves a classroom-level contest to see which first-grade classrooms can have the most children learn to read and comprehend by the end of the school year. Winning classrooms, teachers, students, and parents receive prizes related to reading, such as books and other educational materials. The campaign has been successful in getting parents, community members, teachers, and ministry officials involved in improving early literacy across the country.

CHAPTER 6: CHECKLIST

At the completion of Post-Results Dissemination and Action, your team will have achieved the following:

- ☐ Designed dissemination activities based on the survey purpose and target audience
- ☐ Validated with the ministry the results of any large-scale surveys whose data your team will be disseminating to the public
- ☐ Implemented dissemination activities that will lead to possible changes and improvements in early grade reading development.

Annex 1: Sample Introductory Presentation on EGRA

Overview of Early Grade Reading and the EGRA test

Presentation guidance adapted and condensed from a presentation prepared by:
Luis Crouch
Amber Gove
Sandra Hollingsworth
Sylvia Linan-Thompson

Why focus on early grade reading?

Reading is….

- A foundational skill that leads to a better ability to learn; from "learning to read" to "reading to learn"

- A good marker for how well schools are doing in general

- Usually one of the major goals of parents who send their children to school

7/6/2011   2

Why early?
Reading Trajectories of Low and Middle Readers

Good, Simmons, Smith (1998)
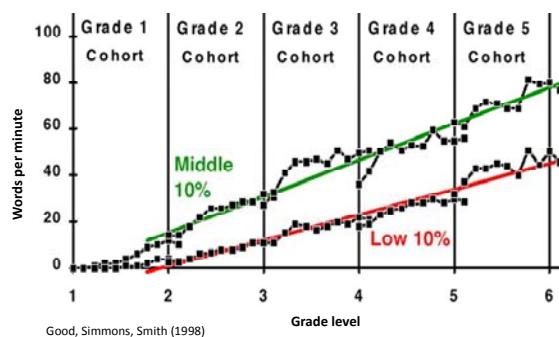
The "Matthew Effect"
Data from the US

Children below a certain level by the end of Grade 1 stay behind forever, and the gap widens.

If they cannot read, they also fall behind in everything else.
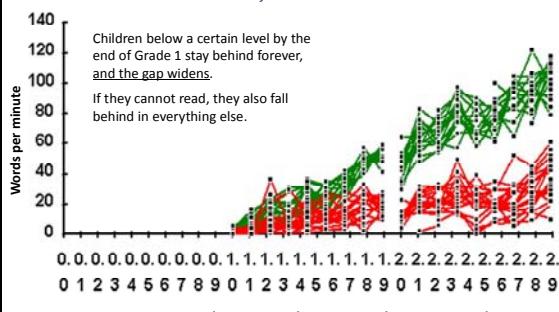
Good, Simmons, Smith (1998)

What is EGRA?

- EGRA measures the skills children need to successfully learn to read.
- EGRA can provide information that will help to design changes in:
  - Teacher Education
  - Curriculum and Materials
  - Monitoring Students' Progress
  - Reading Instruction

How is EGRA administered?

- Individual oral evaluation lasting about 15 minutes per student
- Random sample of students in each school
- Timed subtasks (1 minute) covering essential reading skills proven by extensive research:
  - letter identification, initial word sounds, word reading, nonword reading, and text-reading-comprehension segments

Why measure <u>oral</u> reading?

- Oral reading fluency and comprehension is a good predictor of later reading and other learning skills.

- Paper and pencil tests cannot show reading comprehension.

- Elements of oral reading are in accord with curricular frameworks around the world.

The EGRA Instrument and Subtasks: Components and Skills Measured

Instrument subtask	Early reading skill measured	Skill demonstrated by student's ability to:
1. Letter sound knowledge	Early grapheme-to-phoneme awareness (phonics)	Provide sounds of letters (uppercase and lowercase) presented in random order
2. Initial sound identification	Awareness of phonemes in spoken language	Distinguish the initial/final phoneme in each of a series of short words, presented verbally
3. Syllable Reading	Basic knowledge of syllable construction	Read commonly used syllables
4. Familiar word reading	Sight vocabulary	Read simple, common 1- and 2-syllable words

The EGRA Instrument and Subtests: Components and Skills Measured in Nigeria

Instrument subtask	Early reading skill measured	Skill demonstrated by student's ability to:
5a. Text reading fluency	Oral reading fluency (speed and accuracy)	Read connected text with sufficient accuracy and speed (number of correct words per minute – cwpm)
5b. Reading comprehension	Comprehension of written text	Answer questions requiring recognition/ recall and inference based on text read
6. Listening comprehension	Comprehension of orally read stories	Answer questions requiring recall and inference, based on story heard

Letter – sound knowledge

- Ability to match phonemes (sounds) to graphemes (letters)
- Also known as "phonics" or "decoding" (letters into sounds)
- For example, the letter "b" says **/b/,** not **/buh/**

Phonemic awareness

- The ability to "hear" that phonemes (sounds) can be put together to make words
- No graphemes (letters) are involved.
- For example, "What is the first sound you hear in the word 'man'?" – answer "/mmmmm/"
- "What is the second sound you hear in the word 'ma'?" – answer "/ahhhh/"

Familiar words (common or sight words)

- The ability to read printed words common to languages as a whole, or "sight words"
- Decoding letter by letter is not involved.
- For example, "they," "him," "and," "with" should be read as sight words.

Nonwords

- Tests children's ability to put together decoded phoneme/grapheme sounds to make a "nonsense word," or nonword
- There is no meaning to a nonword.
- For example, children read the nonword "kiz" by decoding /k/ + /i/ + /z/, then reading the blended sounds quickly to make an invented or nonword.

Reading fluency with comprehension

- The ability to read text fast enough, with good accuracy and prosody (expression), to comprehend (understand) what was read

- If a child reads too slowly (less than 30 correct words per minute—CWPM), by the time the end of the sentence or passage is reached the child has forgotten the beginning of the sentence and cannot comprehend.

Listening comprehension

- The ability to listen to and understand a story without seeing the text
- Helps to determine gaps between comprehension ability and reading ability

Possible uses of EGRA

- Promote awareness-raising and policy dialogue
- Plan a pilot intervention
- Impact tracking and evaluation
- Improve teacher education
- Promote classroom assessment by teachers

EGRA should NOT be used

- As a high-stakes accountability tool
- For cross-school comparisons
- As a tool for teacher evaluation

Annex 2: EGRA Subtask Examples

This appendix contains examples of EGRA subtasks, excerpted from instruments used in actual fieldwork in several African countries, as noted on the examples. Most were originally compiled for publication in an appendix of a forthcoming book about EGRA:

> Gove, A. & Wetterberg, A. (Eds.) (In press). *The Early Grade Reading Assessment: Application and intervention to improve basic literacy.* Research Triangle Park, NC: RTI Press.

As pointed out many times within the chapters of this toolkit, examples such as these are not suited for reuse without significant further adaptation to local languages and culture.

One further note: Gove and Wetterberg standardized the primary subtask titles used in the examples for clarity across the book, and the chapters of this toolkit follow the same standard. However, readers will notice that some of the examples in Annex 2 reflect variations in the subtask names that are common in field settings.

To view the complete instruments from which the examples were excerpted, please visit the U.S. Agency for International Development's web pages for the Education Data for Decision Making (EdData II) project, www.eddataglobal.org. An additional resource is the *EGRA toolkit:*

> RTI International. (2009a). *Early Grade Reading Assessment toolkit.* Prepared for the World Bank, Office of Human Development, under Contract No. 7141961. Research Triangle Park, North Carolina: RTI International. Retrieved August 23, 2010, from https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=149

Concepts About Print
SUBTASK EXAMPLE

Source: USAID, EGRA Plus: Liberia, EdData II, 2010

Task 1. Orientation to Print

Show the child the paragraph segment on the last page of the student assessment (Section 6).

Tom wakes up very early. Today is the first day of

school. His little brother Robert is awake, too.

Robert gets his shoes and tells Tom he is ready to go.

Then, Tom walks Robert to school to meet his new

teacher. The teacher sees Robert and says hello.

Tom and Robert are very happy to be at school today.

Read the instructions in the gray boxes below, recording the child's response before moving to the next instruction.

I don't want you to read this now. On this page, where would you begin to read? Show me with your finger.

[Child puts finger on the top row, left-most word]   ○ Correct   ○ Incorrect   ○ No Response

Now show me in which direction you would read next.

[Child moves finger from left to right]   ○ Correct   ○ Incorrect   ○ No Response

When you get to the end of the line, where would you read next?

[Child moves finger to left-most word of second line]   ○ Correct   ○ Incorrect   ○ No Response

Phonemic Awareness: Phoneme Segmentation
SUBTASK EXAMPLE

Source: USAID, EdData II, Kenya, 2007

Section 5. Phoneme Segmentation

Instructions: There is no student sheet for this because the students do not read for this subtask. They only listen to the word the assessor reads. The assessor will say:

I am going to say a word. After I say it, tell me all the sounds in the word. If I say "hen," you would then say /h/ /e/ /n/. Now you try it. Let's try another word, "hat." Tell me the sounds in "hat."
If the child responds correctly say: **Very good, the sounds in "hat" are /h/ /a/ /t/.**
If the child does not respond correctly, say: **The sounds in "hat" are /h/ /a/ /t/. Now tell me the sounds in "hat."**

The child should be allowed two minutes to finish as many items as possible. Pronounce the word twice. Allow 10 seconds for the child to respond. Provide the number and sounds of the words, mark it incorrect, and move on. Score both the number of sounds (correct/incorrect).

Section 5 Marking Sheet: Phoneme Segmentation

Put a slash (/) through incorrectly pronounced phonemes.

shop /sh/ /o/ /p/ _____/3

stand /s/ / t/ /a/ /n/ /d/ _____/5

thank /th/ /a/ /ng/ /k/ _____/4

bat /b/ /a/ /t/ _____/3

seen /s/ /ea/ /n/ _____/3

should /sh/ /uu/ /d/ _____/3

up /u/ /p/ _____/2

at /a/ /t/ _____/2

top /t/ /o/ /p/ _____/3

if /i/ /f/ _____/2

Count and write down the total number of correctly pronounced phonemes _____

Phonemic Awareness: Identification of Onset Sounds
SUBTASK EXAMPLE 1
Source: USAID, EGRA Plus: Liberia, EdData II, 2010

Task 3. Phonemic Awareness

This is **NOT** a timed exercise and **THERE IS NO STUDENT SHEET**. Read aloud each set of words **once** and have the student say which word begins with a different sound. Read these instructions to the child:

> **This is listening exercise. I'm going to say THREE words. ONE of them begins with a different sound, and you tell me which word BEGINS WITH A DIFFERENT SOUND.**
>
> **1. For example:**
> **"lost," "map," "like." Which word begins with a different sound?**
> [If correct:] **Very good, "map" begins with a different sound.**
> [If incorrect:] **"lost," "map," "like." "Map" begins with a different sound than "lost" and "like."**
> **2. Now try another one: "train," "trip," "stop." Which word begins with a different sound?**
> [If correct:] **Very good, "stop" begins with a different sound.**
> [If incorrect:] **"train," "trip," "stop." "Stop" begins with a different sound than "train" and "trip."**
>
> **Do you understand what you are supposed to do?**

Pronounce each set of words **once, slowly** (about 1 word per second). If the child does not respond after 3 seconds, mark it no response and move on.

Early stop rule: If the child gets the **first 5 sets** of answers **incorrect or no response,** draw the line through each of the 5 first rows, discontinue this exercise, check the box at the bottom of this page, and go on to the next exercise.

Which word begins with a different sound? [repeat each set ONCE]										
1	boy	ball	cat	[cat]	☐	Correct	☐	Incorrect	☐	No Response
2	man	can	mad	[can]	☐	Correct	☐	Incorrect	☐	No Response
3	pan	late	pin	[late]	☐	Correct	☐	Incorrect	☐	No Response
4	back	ten	tin	[back]	☐	Correct	☐	Incorrect	☐	No Response
5	fish	fat	cat	[cat]	☐	Correct	☐	Incorrect	☐	No Response
6	boat	bit	coat	[coat]	☐	Correct	☐	Incorrect	☐	No Response
7	day	bag	dot	[bag]	☐	Correct	☐	Incorrect	☐	No Response
8	can	girl	cold	[girl]	☐	Correct	☐	Incorrect	☐	No Response
9	run	race	sand	[sand]	☐	Correct	☐	Incorrect	☐	No Response
10	leg	make	lay	[make]	☐	Correct	☐	Incorrect	☐	No Response

☐ Exercise was discontinued as child had no correct answers in **the first five sets** of words.

Phonemic Awareness: Identification of Onset Sounds
SUBTASK EXAMPLE 2
Source: USAID, EdData II, Kenya, 2009

Section 2. Initial Sound Identification

*This is NOT a timed exercise and **THERE IS NO STUDENT SHEET**. Read aloud each word twice, and have the student say the initial sound. Remember to model the "pure" sounds: /p/, not "puh" or "pay." Say:*

This is a listening exercise. I want you to tell me the beginning sound of each word. For example, in the word "pot", the first sound is "/p/". In this exercise, I would like you to tell me the first sound you hear in each word. I will say each word <u>two times</u>. Listen to the word, then tell me the very first sound in that word.

Let's practice. What is the first sound in "mouse"? "Mouse."
    [If the child responds correctly, say]: **Very good, the first sound in "mouse" is /mmmmm/.**
    [If the child does not respond correctly, say]: **Listen again: "mmmouse." The first sound in "mouse" is /mmmmm/."**

Now let's try another one: What is the first sound in "day"? "Day."
    [If the child responds correctly, say]: **Very good, the first sound in "day" is /d/.**
    [If the child does not respond correctly, say]: **Listen again: "day." The first sound in "day" is /d/.**

Do you understand what you are to do?
    [If the child says no, say]: **Just try your best.**

Read the prompt and then pronounce the target word a second time. Accept only as correct the isolated sound (without a schwa). If the child does not respond after 3 seconds, mark as "No response" and say the next prompt. Enunciate clearly, but do not overemphasize the beginning sound of each word.

<u>***Early stop rule:***</u> *If the child responds incorrectly or does not respond to the first five words, say "Thank you!" Discontinue this exercise, check the box at the bottom of the page, and go on to the next exercise.*

What is the first sound in "_____"? "_____"? *[Repeat the word twice]*									
Map	/mmmm/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Say	/ssssss/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Up	/uh/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Go	/g'/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Now	/nnnn/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Can	/k'/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Fish	/ffffff/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Pig	/p'/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Run	/rrrrrr/	o	Correct	o	Incorrect	o	Don't know	o	No Response
Look	/llllll/	o	Correct	o	Incorrect	o	Don't know	o	No Response

(5 words

Check this box if the exercise was discontinued because the child had no correct answers in the first five words.

Listening Comprehension
SUBTASK EXAMPLE

Source: USAID, EdData II, Kenya, 2009

Task 7. Listening Comprehension

This is NOT a timed exercise and **THERE IS NO STUDENT SHEET.** The administrator reads aloud the following passage **ONLY ONE TIME**, slowly (about 1 word per second). Say:

> **I am going to read you a short story aloud ONCE and then ask you some questions.**
> **Please listen carefully and answer the questions as best as you can.**
> **Do you understand what are you supposed to do?**

Every day Sam walks to school with his friend Tom. On their way to school, the boys like to have a race to see who runs the fastest. It is Tom!

1. **Who does Sam like to walk to school with?**

   [Tom] ☐Correct ☐Incorrect ☐No Response

2. **What do they do on their way?**

   [they race/run]☐Correct ☐Incorrect ☐No Response

3. **Who runs faster?**

   [Tom] ☐Correct ☐Incorrect ☐No Response

Letter Identification: Names
SUBTASK EXAMPLE
Source: USAID, EGRA Plus: Liberia, EdData II, 2010

Section 2. Letter Name Knowledge

Show the child the sheet of letters on the first page of the student assessment. Say:

Here is a page full of letters of the alphabet. Please tell me the NAMES of as many letters as you can—not the SOUNDS of the letters, but the names.

1. For example, the name of this letter [point to O] **is "OH."**
Now you try: tell me the name of this letter [point to V]**:**
    [If correct:] **Good, the name of this letter is "VEE."**
    [If incorrect:] **The name of this letter is "VEE."**
2. Now try another one: tell me the name of this letter [point to L]**:**
    [If correct:] **Good, the name of this letter is "ELL."**
    [If incorrect:] **The name of this letter is "ELL."**

Do you understand what you are supposed to do? When I say "begin," name the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin.

Set the timer on 1 minute. Start the timer when the child reads the first letter. Follow along with your pen and clearly mark any incorrect letters with a slash (/). Count self-corrections as correct. **Stay quiet,** except when providing answers as follows: if the child hesitates for 3 seconds, provide the name of the letter, point to the next letter and say "**Please go on**." Mark the letter you provide to the child as incorrect.

WHEN THE TIMER REACHES 0, SAY, "Stop." *Mark the final letter read with a bracket (⅂).* If the learner finished in less than 60 seconds, enter the remaining time.
Early stop rule: *If the child does not give a single correct response on the first line, say "Thank you!" Draw a line through the letters in the first row, discontinue this exercise, check the box at the bottom, and go on to the next exercise.*

L	i	h	R	S	y	E	O	n	T	10
i	e	T	D	A	t	a	d	e	w	20
h	O	e	m	U	r	L	G	R	u	30
g	R	B	E	i	f	m	t	s	r	40
S	T	C	N	p	A	F	c	a	E	50
y	s	Q	A	M	C	O	t	n	P	60
e	A	e	s	O	F	h	u	A	t	70
R	G	H	b	S	i	g	m	i	L	80
L	i	N	O	e	o	E	r	p	X	90
N	A	c	D	d	l	O	j	e	n	100

Time left on stopwatch if student completes in LESS than 60 seconds: _____
☐ Exercise was discontinued as child had no correct answers in the first line.

Letter Identification: Sounds
SUBTASK EXAMPLE
Source: World Bank, Guyana, 2008

Section 3. Letter Sound Knowledge

Show the child the sheet of letters in the student stimuli booklet. Say:

> **Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can—not the NAMES of the letters, but the SOUNDS.**
> **For example, the sound of this letter** *[point to A]* **is "AH" as in "APPLE" or "AAAA" as in "AGE."**
> **Let's practice: tell me the sound of this letter** *[point to V]***:**
> > *If the child responds correctly, say:* **Good, the sound of this letter is "VVVV."**
> > *If the child does not respond correctly, say:* **The sound of this letter is "VVVV."**
> **Now try another one: tell me the sound of this letter** *[point to L]***:**
> > *If the child responds correctly, say:* **Good, the sound of this letter is "LLL."**
> > *If the child does not respond correctly, say:* **The sound of this letter is "LLL."**
> **Do you understand what you are to do?**
> **When I say "Begin," please sound out the letters as quickly and carefully as you can. Tell me the sound of the letters, starting here and continuing this way.** *[Point to the first letter on the row after the example and draw your finger across the first line].***If you come to a letter sound you do not know, I will tell it to you. Otherwise I will keep quiet and listen to you. Ready? Begin**.

*Start the timer when the child reads the first letter. Follow along with your pencil and **clearly** mark any incorrect letters with a slash (**/**). Count self-corrections as correct. If you've already marked the self-corrected letter as incorrect, circle the letter and go on. **Stay quiet,** except when providing answers as follows: if the child hesitates for 3 seconds, provide the sound of the letter, point to the next letter and say "**Please go on**." Mark the letter you provide to the child as incorrect. If the student gives you the letter name, rather than the sound, provide the letter sound and say: ["**Please tell me the SOUND of the letter**"]. This prompt may be given only once during the exercise.*

AFTER 60 SECONDS SAY, "Stop." Mark the final letter read with a bracket ( ]).

Early stop rule: *If you have marked as incorrect all of the answers on the first line with no self-corrections, say "Thank you!" Discontinue this exercise, check the box at the bottom, and go on to the next exercise.*

Example: A v L

1	2	3	4	5	6	7	8	9	10	
L	i	h	R	S	y	E	O	n	T	*(10)*
i	e	T	D	A	t	a	d	e	w	*(20)*
h	O	e	m	U	r	L	G	R	u	*(30)*
g	R	B	E	i	f	m	t	s	r	*(40)*
S	T	C	N	p	A	F	c	a	E	*(50)*
y	s	Q	A	M	C	O	t	n	P	*(60)*
e	A	e	s	O	F	h	u	A	t	*(70)*
R	q	H	b	S	i	g	m	i	L	*(80)*
L	i	N	O	e	o	E	r	p	X	*(90)*
N	A	c	D	d	I	O	j	e	n	*(100)*

Time remaining on stopwatch at completion (number of SECONDS):

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

Syllable Naming
SUBTASK EXAMPLE

Source: USAID, Nigeria NEI, 2011

Section 3: Syllable Naming
Show the child the sheet of syllables in the student stimuli booklet. Say:

> Ga wasu haruffa. Sai ki/ka karanta gwargwadon waxanda kike/kake iya karantawa (sai dai kada ki/ka bi baqi bayan baqi, ki/ka dai karanta harafin gaba xaya). Misali, wannan harafi: "zi" ke nan.
>
> To, mu gwada, ko?: Sai ki/ka karanta wannan harafi [nuna harafin **"ni"**]:
>   Idan yarinya/yaro ta/ya karanta shi daidai, sai ki/ka ce: **Da kyau, ana faxin wannan harafi, a ce "ni."**
>   Idan yarinya/yaro ba ta/bai karanta daidai ba, sai ki/ka ce: **Ana faxin wannan harafi, a ce "ni."**
>
> To, gwada karanta wani harafin: sai ki/ka karanta wannan harafi [nuna harafin **"ta"**]:
>   Idan yarinya/yaro ta/ya karanta daidai, sai ki/ka ce: **Da kyau, ana faxin wannan harafi a ce "ta."**
>   Idan yarinya/yaro ba ta/bai karanta daidai ba, sai ki/ka ce: **Ana faxin wannan harafi a ce "ta."**
>
> In na ce "fara", ki/ka karanta haruffan da hanzari, da hankali; ki/ka kuma buxa baki. Ki/ka karanta haruffan bi da bi, ki/ka fara daga layin farko qasa da layin nan. Idan kika/ka zo ga harafin da ba ki/ka sani ba, zan ce ki/ka ci gaba. In ba haka ba, zan yi shiru ina saurarenki/ka. Kin/ka gane abin da ake son ki/ka yi? Kin/ka shirya? To, bisimilla, fara.

🕐 *Start the timer when the child reads the first syllable. Follow along with your pencil and clearly mark any incorrect syllables with a slash (/). Count self-corrections as correct. If you've already marked the self-corrected syllable as incorrect, circle the syllable and go on.* **Stay quiet,** *except when providing answers as follows: if the child hesitates for 3 seconds, point to the next syllable and say* **"Please go on."**
AFTER 60 SECONDS, SAY "Stop." Mark the final syllable read with a bracket ( ]). <u>**Early stop rule:**</u> *If you have slashed/marked as incorrect all of the answers on the first line, say* **"Thank you!"** *Discontinue this exercise, check the box at the bottom, and go on to the next exercise.*

Misalai: zi   ni   ta

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	
te	ya	la	ko	fa	ci	ma	go	fu	mu	*(10)*
na	hu	me	ri	ra	cu	wa	he	wa	su	*(20)*
qi	tu	sa	so	vu	fi	le	gi	qo	ru	*(30)*
na	ju	ji	lu	fo	hi	xa	ri	co	mu	*(40)*
bu	be	mo	ka	su	nu	qu	ti	mi	ma	*(50)*
sa	ma	du	ha	ve	ja	sa	wa	si	de	*(60)*
yo	ji	ka	gi	qe	va	ye	qa	zu	ge	*(70)*
wu	gu	re	do	na	tu	li	gu	ca	jo	*(80)*
fi	ta	lo	ho	ta	di	yu	no	ra	bo	*(90)*
je	xi	vo	bi	ro	wo	bi	ko	xo	fe	*(100)*

Time remaining on stopwatch at completion (number of SECONDS):

Check this box [✔] if the exercise was discontinued because the child had no correct answers in the first line.

Da kyau, sannu da qoqari! To, mu ci gaba zuwa sabon sashe.

Nonword Reading
SUBTASK EXAMPLE

Source: USAID, EGRA Plus: Liberia, EdData II, 2010

Task 5. Simple Unfamiliar Nonword Decoding

Show the child the sheet of nonwords on the third page on the student form. Say:

Here are some made-up words. I would like you to read me as many made-up words as you can (do not spell the words, but read them).
For example, this made-up word is "ut."

1. Now you try: [point to the next word: "dif' and say] **please read this word**
                                        [If correct]: **"Very good: dif"**
                                        [If incorrect]: **This made-up word is "dif."**

2. Now try another one: [point to the next word: mab and say] **please read this word**.
                                        [If correct]: **"Very good: mab"**
                                        [If incorrect]: **This made-up word is "mab."**

Do you understand what you are supposed to do? When I say "begin," read the words as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin.

Start the timer when the child reads the first word. Follow along with your pencil and clearly mark any incorrect words with a slash (╱). Count self-corrections as correct. **Stay quiet,** except when providing answers as follows: if the child hesitates for 3 seconds, provide the word, point to the next word, and say "**Please go on**." Mark the word you provide to the child as incorrect.

WHEN THE TIMER REACHES 0, SAY, *"Stop." Mark the final word read with a bracket (*┚*).* If the learner finished in less than 60 seconds, enter the remaining time.

*Early stop rule: If the child gives no correct answers on the first line, say "**Thank you!**" Discontinue this exercise, draw the line through the words in the first row, check the box at the bottom of the page, and go on to the next exercise.*

loz	ep	yat	zam	tob	5
zom	ras	mon	jaf	duz	10
tam	af	ked	ig	el	15
tig	pek	dop	zac	ik	20
uf	ral	ep	bab	vif	25
lut	sig	zop	zar	jaf	30
ruz	huf	wab	ak	jep	35
wub	dod	ik	vus	nux	40
pek	zel	bef	wab	hiz	45
wof	ib	dek	zek	vok	50

Time left on stopwatch if student completes in LESS than 60 seconds: _____

☐ Exercise was discontinued as child had no correct answers in the first line.

Familiar Word Reading
SUBTASK EXAMPLE

Source: USAID, EdData II, Kenya, 2009

Section 4. Familiar Word Reading

Show the child the sheet of familiar words in the student stimuli booklet. Say:

> **Here are some words. Please read as many words as you can (do not spell the words, but read them). For example, this word is "cat."**
>
> **Let's practice: please read this word** [point to the word "sick"]**:**
> > If the child responds correctly, say: **Good, this word is "sick."**
> > If the child does not respond correctly, say: **This word is "sick."**
>
> **Now try another one: please read this word** [point to the word "made"]**:**
> > If the child responds correctly, say: **Good, this word is "made."**
> > If the child does not respond correctly, say: **This word is "made."**
>
> **When I say "begin," read the words as quickly and carefully as you can. Read the words across the page, starting at the first row below the line. I will keep quiet and listen to you, unless you need help. Do you understand what you are to do? Ready? Begin**.

*Start the timer when the child reads the first word. Follow along with your pencil and clearly mark any incorrect words with a slash (**/**). Count self-corrections as correct. If you've already marked the self-corrected word as incorrect, circle the word and go on.* **Stay quiet,** *except when providing answers as follows: if the child hesitates for 3 seconds, provide the word, point to the next word, and say "* **Please go on***." Mark the word you provide to the child as incorrect.*

AFTER 60 SECONDS, SAY "Stop." Mark the final word read with a bracket ( ]).
Early stop rule: *If you have slashed/marked as incorrect all of the answers on the first line, say "Thank you!" Discontinue this exercise, check the box at the bottom, and go on to the next exercise.*

Example :	cat	sick		made	

	1	2	3	4	5	
	go	sad	up	find	come	*(5)*
	help	two	run	see	down	*(10)*
	red	and	play	at	you	*(15)*
	chair	man	when	now	under	*(20)*
	please	soon	like	they	good	*(25)*
	thank	going	are	know	him	*(30)*
	jump	once	ask	fly	want	*(35)*
	must	green	sing	those	always	*(40)*
	many	which	some	sit	clean	*(45)*
	stop	big	me	house	for	*(50)*

Time remaining on stopwatch at completion (number of SECONDS): ☐

Check this box if the exercise was discontinued because the child had no correct answers in the first line. ☐

Section 6. Passage Reading and Comprehension

Show the child the story on the last page of the student form. Say,

> **Here is a short story. I want you to read this aloud. When you finish, I will ask you some questions about what you have read.**
> **Do you understand what are you supposed to do? When I say "begin," read the story as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin**.

Set the timer on 1 minute. Start the timer when the child reads the first word. Follow along with your pencil and clearly mark any incorrect words with a slash (/). Count self-corrections as correct. **Stay quiet,** except when providing answers as follows: if the child hesitates for 3 seconds, provide the word, point to the next word, and say "**Please go on**." Mark the word you provide to the child as incorrect. **WHEN THE TIMER REACHES 0, SAY,** "**Stop**." Mark the final word read with a bracket (⌐). If the child gets the entire first line incorrect, discontinue this exercise—both reading and comprehension questions—check the box below, and go on to the next exercise.

STOP THE CHILD AT 0 SECONDS AND MARK WITH A BRACKET (⌐).
Take **the text away** from the child after they read it. Read instructions to the child. Then read each question slowly and clearly. After you read each question, give the child at most 15 seconds to answer each question. Mark the answers to the questions as correct or incorrect.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as best as you can.		
James likes to play. One day he and his friend	10	**Who did James play with?** [Tom] ☐Correct ☐Incorrect ☐No Response
Tom ran into the bush to play. James hid and	20	**Where did the boys like to play?** [Bush] ☐Correct ☐Incorrect ☐No Response
then Tom saw his head. The boys had a lot of fun	32	**What did Tom see after James hid in the bush?** [James's head; head] ☐Correct ☐Incorrect ☐No Response
with this game. Tom ran but James did not find him.	43	**Why did the boys have to stop playing?** [It became too dark] ☐Correct ☐Incorrect ☐No Response
Tom and James smiled. Soon it became too dark to play.	54	**What did the boys do at the end of the story?** [went home, ate dinner] ☐Correct ☐Incorrect ☐No Response
Both boys went home for dinner.	60	

Time left on stopwatch if student completes in LESS than 60 seconds: _____

☐ Exercise was discontinued as child did not read a single word correctly in the first line.

Dictation
SUBTASK EXAMPLE

Source: USAID, Core Education Skills for Liberian Youth (CESLY), 2010

[From assessors' instructions on reading sheets and student booklet]

Section 5. Dictation

Turn to the next page; it is a lined page for learners to write on. Put it in front of the learner. For yourself, turn to the last page of the Learners Reading Sheets, where you will find instructions for yourself.
By now, your learner should have a lined page in front of them. Follow instructions carefully.
Say:

> **I am going to read you a short sentence. Please listen carefully. I will read the whole sentence once. Then I will read it in parts so you can write what you hear. I will then read it again so that you can check your work. Do you understand what you are to do?**

Read the following sentence ONCE at about one word per second.

The girls wanted to go and ride their bikes.

Then, give the child a pencil, and read the sentence a SECOND time, grouping the words as follows:

The girls wanted /wait 5 seconds/ to go and /wait 5 seconds/ ride their bikes.

Wait 15 seconds and read the whole sentence.

The girls wanted to go and ride their bikes.

Wait 5 seconds and then retrieve the instrument from the learners. Leave the pencil with the child and tell them to keep it safe because they will need it again.

The girls wanted / to go and / ride their bikes.

Evaluation Criteria		Correct = 1 Incorrect = 0
Wrote 'the' correctly	The	
Wrote 'girls' correctly	girls	
Wrote 'wanted' correctly	wanted	
Wrote 'to' correctly	to	
Wrote 'go' correctly	go	
Wrote 'and' correctly	and	
Wrote 'ride' correctly	ride	
Wrote 'their'	their	
Wrote 'bikes' correctly	bikes	
Use appropriate direction from left to right		
Used capital letter for word "The"		
Used full stop (.) at end of sentence		

Annex 3: Relevant EGRA Sampling Principles

Four Principles Related to Sample Size

1. Variability: In the EGRA context, this refers to student reading scores or another EGRA-related variable. The greater the variability of the learners' performance is, the greater the required sample size needs to be. For example, in theory, if a school existed where all students are reading at exactly the same fluency level, you would only need to sample one student to calculate an accurate estimate of the average reading fluency in that school. Unfortunately, when determining your sample size, actual variability cannot be known in advance. One way to develop sample size estimates for a new case (new country, new region) is to look at comparable cases in other countries. Ultimately, the variability of scores will be shown in your results and may or may not allow for certain information to be reported.

Larger sample sizes accommodate more variability in student performance and provide more precise results. Unfortunately, large samples are very expensive. Therefore, your EGRA team must select a sample that is large enough to provide reliable data while not requiring excessive resources. Aside from monetary costs, EGRA, like any school-based assessment exercise, interrupts school procedures, takes time away from lessons, and often raises expectations.

2. Researcher-determined confidence interval width: In statistics, a confidence interval gives information for some characteristic of the population being studied by helping to determine how likely it would be to find the same results if the sample were repeated. The width refers to the range of the interval of values centered on the mean of your team's data. For example, a 90% confidence level means the findings would fall within the pre-determined confidence interval width (the specified range of data) in 90 out of 100 repeated samples."[1] In this way, the interval gives a range of plausible values in which the data will fall 90% of the time.

The width of the confidence interval relates to the sample size since the larger your sample size, the smaller your **confidence interval.** The smaller your confidence interval, the less variability is predicted in the data and the higher the reliability. The confidence interval helps predict the average reading score of all 2nd and 3rd grade students of different background, plus or minus a margin of error (preferably no more than +/- 7 on the oral reading fluency test).

3. Researcher-determined confidence level: The confidence level quantifies how certain your team is in your EGRA data and tells you how sure you can be about your results. Most researchers use the 95% confidence level, which means that the researchers can be 95% sure about their results.

For example, imagine your pre-determined confidence interval is from a value "a" to a value "b." This interval gives a range of plausible values the data will take a certain percentage of the time. If your team repeats the survey and assumes a 95% confidence level, this means that no more

---

[1] Studenmund, A. H. (2006). *Using econometrics: A practical guide* (5th ed). Boston: Addison Wesley Pearson.

than 5% of your data will be "outliers" (a value less than "a" or greater than "b"). The other 95% of your data is expected to fall within the pre-determined confidence interval.

4. Design effect (DEFF): This is a specific measurement of the degree to which the clustering may be leading to an underestimate of variability, and it can be used to make compensatory adjustments.

Types of Non-Biased Probability Sampling

Simple random sampling: In this approach, your team would randomly select a certain number of students from the total target population. In this case, each student would have the same chance of selection.[2] While this approach does create a data set that is often fairly representative and easy to analyze, it is rarely feasible unless you have a small population. It is too costly and time-intensive to send assessors to many different school sites where they may be only assessing one or two students. Furthermore, a lack of accurate school records means many replacement students would be required, further increasing the logistical challenges and costs in terms of time and funds.

Stratified random sampling: This approach involves selecting a simple random sample from each of a given number of subpopulations, or strata.[3] How you define your strata depends on the characteristics your team is looking to include in your sample. For example, your team may divide your population by socioeconomic status, language group membership, or by geographic characteristics (i.e., rural and urban or north and south.) With stratified sampling, the best survey results occur when elements within strata are internally homogeneous. This approach can help ensure better representation and also allow you to have results for each strata of the population. However, it is important to define your strata properly to avoid sampling error. Also, since each stratum may not be proportionate to the overall population, your team's statistician will need to weight each stratum for the data analysis to avoid biased results.

Cluster sampling: A cluster sample is a simple random sample of clusters from the available clusters in the population. Another form of random sampling is used when the available sampling units are groups of elements, called clusters. For example a household, a city block, or a neighborhood can be used as sampling units and might then be considered as clusters. By dividing your target population into groups or clusters, your team can conserve on travel-related costs and be more time efficient. First, your team will need to determine the geographic unit for your clusters, such as a district within a province or a state or a sub-unit of a district. Then, randomly select a predetermined number/portion of the total clusters and include this subset in your sample. If using a single-stage approach, your team would survey students at every school in the cluster; however a two-stage approach in which you survey students at a subset of randomly selected schools within each cluster is more usual.[4]

---

[2] Mendenhall, W., Beaver, R., & Beaver, B. (2008). *Introduction to probability and statistics* (13th ed.)*.* New York: Duxbury Press.

[3] Ibid.

[4] Single-stage cluster sampling. (2011). In *Encyclopedia Britannica*. Retrieved from http://www.britannica.com/EBchecked/topic/545980/single-stage-cluster-sampling.

In theory, the cluster sampling method works best when units (i.e., the students) within clusters are internally heterogeneous. However, in reality, children within schools tend to be more similar than when compared to children at different schools. This is because children at the same school usually belong to the same social class, speak the same language, have similar quality of teachers, are exposed to similar management practices, and experience similar advantages or disadvantages related to their environment. In this sense, the population variability between children tends to be underestimated if one uses a cluster sampling approach. This means the transportation and labor cost efficiency is gained at the price of a loss of information about variability. To avoid a loss in precision, your team's statistician can use the design effect (DEFF) to adjust the sample size to account for the loss in variability caused by clustering.

Probability proportional to size: This method of sampling provides a way to provide equal probability of selecting a student within a given cluster, which is ultimately what a purely simple random sample would allow you to do. This method results in selection of clusters and schools based on their size, since the larger the population of the cluster and school, the more students have a probability of being selected for sampling. To select your sample using this method, first, make a list of all the schools in a given cluster and compile their enrollment. Then automatically select the clusters with a higher population. Follow this same procedure with schools (i.e., obtain enrollment for all the schools, then select larger schools.) In the end, you will get an equal probability of selection of a student. The "penalty" of this method, however, is that schools within a cluster are going to be less variable than schools in different clusters.

Multistage sampling: The above sampling methods are not mutually exclusive. By adopting a multistage sampling approach, your team can select a sample by using a combination of different sampling methods. An example of multistage sampling follows:

Stage 1: Use *stratified random sampling* and divide your population into strata.
Stage 2: Use *cluster sampling* to create clusters within each stratum.
Stage 3: Use *simple random sampling* to select schools within each cluster.
Stage 4: Use *stratified random sampling* and divide your population at each school into two groups/strata based on gender.
Stage 5: Use *simple random sampling* to select an equal number of male and female students within each school.

Annex 4: Simple Work Plan Example

Activity and Tasks	M1-1	M1-2	M1-3	M1-4	M2-1	M2-2	M2-3	M2-4	M3-1	M3-2	M3-3	M3-4	M4-1	M4-2	M4-3	M4-4	M5-1	M5-2	M5-3	M5-4	M6-1	M6-2	M6-3	M6-4	M7-1	M7-2	M7-3	M7-4	M8-1	M8-2	M8-3	M8-4
A. Preparation and Management																																
1 Develop workplan, research design	■	■																														
2 Conduct policy dialogue with in-country stakeholders (ongoing)	■	■	■	■		■								■			■									■						
3 Recruit language experts			■	■																												
4 Recruit enumerators				■	■																											
B. Development of EGRA Instruments																																
1 Prepare adaptation workshops			■	■	■	■																										
2 Arrange logistics for pilot						■	■																									
3 Conduct adaptation workshop(s) [length depends on number of languages, number of subtasks in EGRA tasks, whether pilot will be conducted immediately afterwards, etc.]							■	■																								
4 Develop EGRA questionnaire [for students; may want to develop teacher and principal questionnaires as well, which will require additional time]								■																								
5 Pilot instrument(s)									■																							
6 Develop data entry interface									■	■																						
7 Enter pilot data										■																						
8 Analyze pilot data											■																					
9 Finalize instruments												■																				
10 Submit instruments and manuals for Institutional Review Board (IRB) approval													■																			
C. EGRA Survey																																
1 Finalize sampling framework, select schools													■	■	■																	
2 Arrange logistics for enumerator training															■																	
3 Conduct week-long enumerator training																■																
4 Arrange logistics for full survey																	■															
5 Conduct full EGRA survey																		■	■													
D. EGRA Data Analysis																																
1 Recruit and train data entry clerks																					■	■										
2 Conduct data entry																							■	■								
3 Conduct data cleaning and analysis																								■	■							
4 Write summary report - 4 days																										■	■					
5 Share EGRA results with stakeholders																											■	■				

Annex 5: Detailed Work Plan Example

		Person(s) responsible	Est. # of days	Week 1	Week 2	Etc.													
1. Preparation																			
1.1	**Dialogue with Ministry, other stakeholders**																		
a.	Identify key Ministry counterparts																		
b.	Conduct dialogue with Ministry around goals for EGRA																		
c.	Identify key people within Ministry for ongoing dialogue, support																		
d.	Develop plan for Ministry capacity-building around EGRA																		
1.2	**Research Design**																		
a.	Determine research question																		
b.	Determine sample size (based on research question)																		
1.3	**Implementation plan and budget**																		
a.	Develop implementation plan																		
b.	Draft budget																		
1.4	**Logistics subcontractor**																		
a.	Solicit bids from potential subcontractor firms																		
b.	Review bids, select subcontractor, and issue contract																		
2. Development of EGRA																			
2.1	**Adaptation workshop**																		
a.	Identify reading specialist and language specialists; prepare SOW and establish contracts																		
b.	Develop budget for workshop																		
c.	Secure language texts from schools																		
d.	Prepare letter and word frequency lists for language																		
e.	Work with reading and language specialists to develop framework for EGRA based on language properties, research design, etc.																		
f.	Prepare materials and presentations for adaptation workshop																		
g.	Identify, contact, and invite participants to adaptation workshop																		
h.	Arrange participant lodging, transportation, and accommodations as appropriate																		
i.	Contact school(s) to participate in pretest																		
j.	Conduct EGRA adaptation workshop																		
2.2	**Pilot and finalize instrument**																		
a.	Determine pilot sample size and identify schools																		
b.	Arrange all logistics for pilot: contact schools, arrange travel, etc. (develop pilot checklist)																		
c.	Prepare materials for pilot																		
d.	Conduct pilot																		
e.	Identify and contract data entry people for pilot (depending on size of pilot)																		
f.	Conduct data entry from pilot																		
g.	Conduct psychometric analysis of pilot data																		
h.	Finalize instruments based on pilot analysis																		
i.	Submit instruments and manuals for Institutional Review Board (IRB) approval																		

	Person(s) responsible	Est. # of days	Week 1	Week 2	Etc.															
2.3 (OPTIONAL) Questionnaire development																				
a. Identify and invite people to workshop																				
b. Prepare agenda and materials for teacher/principal/other questionnaire development workshop (to be administered alongside EGRA)																				
c. Conduct questionnaire adaptation workshop																				
d. Translate questionnaires if necessary																				
2.4 EGRA data entry preparation																				
a. Develop EGRA data entry system																				
b. Develop data entry manual																				
3. Assessor Training																				
3.1 Preparation																				
a. Make a list of materials needed																				
b. Prepare budget for assessor training																				
c. Prepare agenda and presentations																				
d. Identify and recruit potential assessors																				
e. Secure training venue and arrange accommodations (food, lodging as appropriate)																				
f. Arrange all logistics for participant payment and/or per diem																				
g. Contact and arrange logistics for practice at nearby schools																				
h. Prepare materials for training																				
3.2 Training																				
a. Conduct assessor training for EGRA																				
c. Conduct supervisor training																				
4. Data Collection, Entry, and Analysis																				
4.1 Sampling																				
a. Determine sampling framework																				
b. Identify schools to survey																				
4.2 Logistics planning and data collection																				
a. Write and deliver Ministry letter of authorization for data collection																				
b. Develop detailed data collection itinerary (schools, dates, teams, etc.)																				
c. Arrange all logistics for data collection: vehicles/transport, assessor contracts/payment, materials, etc.																				
d. Meet with data collection teams to review tasks, itinerary																				
e. Collect data																				
4.3 Data entry																				
a. Arrange logistics and training for data entry																				
b. Train data entry clerks																				
c. Conduct data entry (and supervise)																				
4.4 Data analysis and reporting																				
a. Clean data																				
b. Conduct analysis																				
c. Write EGRA report																				
d. Disseminate EGRA results																				

Annex 6: Guidance on Budget Inputs

EGRA Budget Items

Adaptation workshop	Unit cost	Number	Total
Venue rental			
Participant travel			
Participant lodging			
Participant per diem			
Meals/snacks			
Supplies (see detail sheet)			
Assessor training			
Venue rental			
Participant travel			
Participant lodging			
Participant per diem			
Meals/snacks			
Supplies (see detail sheet)			
Pilot			
Assessor transport			
Assessor per diem			
Assessor lodging			
Data entry			
Data collection			
Database development			
Assessor transport (must be broken down in detail)			
Assessor per diem			
Supplies (see detail sheet)			
Data entry			
Data entry clerk per diem			
Data entry clerk transport			
Data entry - test per unit cost			
Computer rental			

Adaptation Workshop

Item	Unit cost	Number	Pages (if applicable)	Total cost
Workshop agenda				
EGRA response booklet				
Student stimuli				
Teacher questionnaire				
Principal questionnaire				
Notepad				
Pens				
Pencils				
Small erasers				
Pencil sharpeners				
Stopwatches				
Batteries for stopwatches				
Clipboards				
Folders				
Staplers				
Staples				
Projector rental				
TOTAL				

Assessor Training Workshop

Item	Unit cost	Number	Pages (if applicable)	Total cost
Workshop agenda				
EGRA response booklet				
Student stimuli				
Teacher questionnaire				
Principal questionnaire				
Assessor handouts				
Supervisor manual (handouts)				
Notepad				
Pens				
Pencils				
Small erasers				
Pencil sharpeners				
Staplers*				
Staples				
Stopwatches*				
Batteries for stopwatches				
Clipboards*				
Folders				
Student gifts (i.e., pencil)				
Projector rental				
TOTAL				

*Some of these items may already be purchased during the adaptation workshop.

Pilot Data Collection Supplies

Item	Unit cost	Number	Days or Pages	Total cost
EGRA response booklet				
Student stimuli				
Teacher questionnaire				
Principal questionnaire				
Classroom observation documents				
Plastic bag to carry completed forms for each school				
Staplers				
Staples				
Pencils				
Small Erasers				
Pencil sharpeners				
Ballpoint pens				
Stopwatches				
Batteries				
Clipboards (purchased during adaptation workshop or enumerator training)				
Student gifts				
School info sheet				
TOTAL PILOT DATA COLLECTION/ENTRY COST				

Full data collection

# of Assesors	
# of Assesors + 1 Supervisor	
Number of teams	

Item	Unit cost	Number	Days or Pages	Total cost
Student Supplies				
EGRA student questionnaire				
Student stimuli sheets				
Teacher questionnaire				
Principal questionnaire				
School info sheet				
Student gifts				
Subtotal				
Team supplies				
Air time cellphones				
Water per vehicle for duration of field work (1 bottle/person/day)				
Clipboards (1 per team member)				
Notepads (1 per team member)				
Pencils (2 per assessor)				
Stopwatches (1 per assessor plus 1 extra per team)				
Batteries per team (AAA - triple A)				
Heavy plastic bags (1 per assessor plus 1 extra)				
Stapler (1 per team)				
Box of staples (1 box per team)				
Felt tip markers (1 per team)				
Erasers (1 per team member)				
Pencil sharpeners for teams (2 per team - supervisor carries)				
Plastic document envelopes to keep personal documents dry				
Lamp with batteries (depending on need)				
Umbrellas or rain ponchos				
TOTAL				

Annex 7: How to Prepare Letter- and Word-Frequency Lists

This annex explains how to obtain letter- and word-frequency lists for a given language, as well as how to use an Excel-based randomizer to create the letter and word subtasks of the EGRA instrument.

Note: The example used to explain the process should not be used for an actual EGRA test.

Stage 1: Obtaining text

1. First, obtain copies of the official student textbooks, readers, or other primers for the regions, districts, schools, and grades in which you will be implementing the EGRA. Even if these books or texts are not widely available in classrooms, these should be the texts that, in theory, children are supposed to have. If possible, obtain an electronic copy of the texts from the Ministry of Education or book publisher. If it is not possible to obtain an electronic copy, obtain hard copies. If there are no texts for the grades in which you are testing, then you may need to find other text material for young children.

2. Once you have obtained a sample of grade-appropriate text, type a sample of pages into a Word document. (This can be done by a project assistant, the subcontractor, the linguist, or a student hired for a few hours to type. You want to make sure the person can type fairly quickly.) A sample of at least 5,000 words is recommended, and actually does not take very long to type.

3. To determine the sample number of pages, identify the most relevant texts. Identify the average number of words per page. Then divide the total number of words you would like (5,000) by the total number of words per page (i.e., 50), to determine the number of pages you need to type. If you need 50 pages of text and have 200 pages, you will then type every fourth page (200 / 50 = 4). If you have more time (or sufficient funds to pay someone), create a larger sample: the more words the better. If you have a set of readers or primers, you could take a sample of those that equals the number of words you need.

4. The typist should then type all of the words that a CHILD would be expected to read (not teacher directions). The person should NOT type the punctuation (periods, commas, etc.), exercise numbers, or page numbers. You only want the words and letters.

Figure A. Format for text sample

standing all alone spring summer autumn winter middle fiddle riddle my baby bird weak break squeak speak deep sleep weep peeped started little found young seemed began trying I found a young bird he was so weak I put some food in his baby beak He looked up at me and made a squeak It seemed to me he was trying to speak then he feel on his back, in a deep deep sleep I began to feel sad and started to weep the poor little bird seemed so sick and so weak then he peeped up at me and began to squeak sleep slept weep wept deep depth little brittle found food weak beak I a bird he was so I put some in his the rain and the plain rain plain stain drain again brain washing looking splashing travelling playing changing across house I was travelling across dry land on a slow steam train I was looking out the window as it began to rain I could see the raindrops splashing on the dusty plain the rainwater was washing into the creek you could see it drain the plain was plain brown like a rusty stain we passed a farm house the children were playing in the rain I could imagine the dry brown land changing in my brain and knew in a few days it would be a green plain again main pain gain vain grain came dame tame

5. Be sure that the person typing has installed a font on their computer for recognizing any special characters not found in the Roman alphabet. If you are testing two consecutive grades, such as grades 1 and 2 or 2 and 3, you can combine the texts. However, if you are testing grades 2 and 4, you may want to keep the text samples separate to identify whether text for grade 4 students is significantly more difficult. In general, however, the most frequent words tend to be simple.

Stage 2: Identifying frequent letters and creating a table of 100 randomized letters

1. First, identify all of the letters of the language you will be testing. This should be done with a linguist to ensure that the letters of the alphabet are accurate. You will need to determine how frequently each letter of the alphabet occurs in the text sample. Create a list of the letters of the alphabet in Excel, with all the letters in one column, and one letter per cell.

2. Using the **Find** command, identify the letter you want to count, such as A. Click on **Reading Highlight** and click **Highlight All**. This will not only highlight the list of letters, but also tell you the number of those letters that exist in your document. In the sample below, there are 469 letter A's in the text. (The number is underneath **Find What**.)

Figure B. Determining the number of letters in your text sample
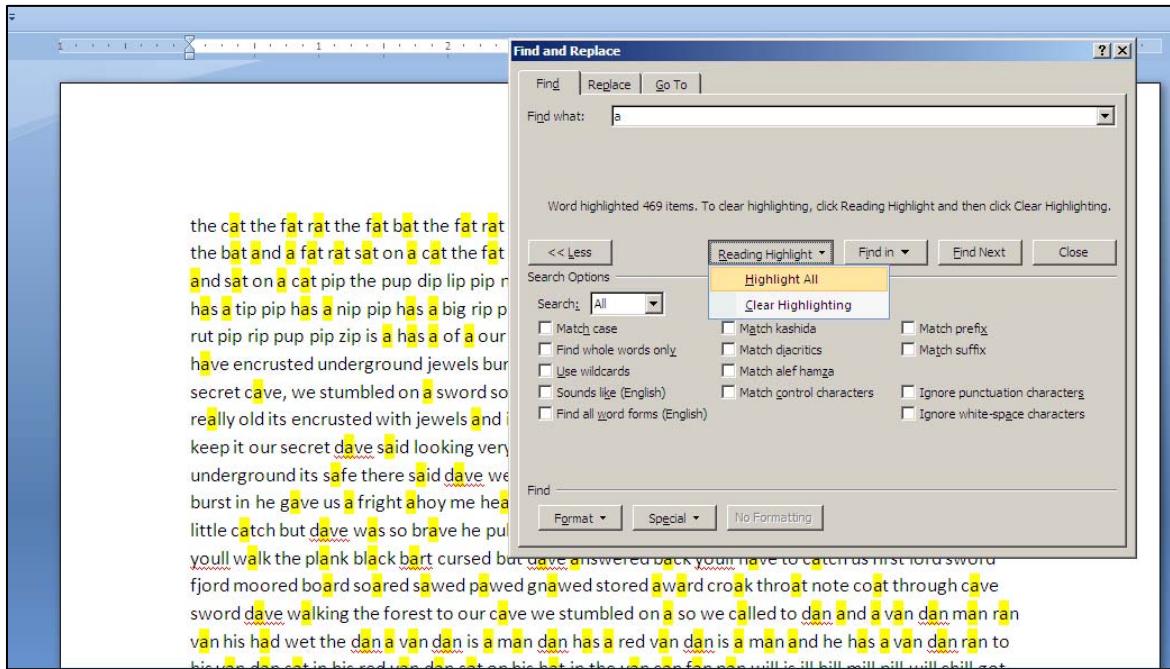
3. Next, type that number in an Excel document, next to the letter A. You should have two columns: one for the letters and one for the letter frequencies (see example below). Do this for the entire list of letters.

Figure C: Letter frequencies in Excel

a	469
b	69
c	112
d	214
e	521
f	62
g	135
h	221
Etc…	

4. Note that many languages will have different letters that Excel does not identify. Some symbol should be used in place of the unrecognizable letter. For these situations, you may be able to substitute a different letter combination, such as "dd," in place of a letter that Excel does not recongnize. In other cases, you can copy and paste the unrecognizable letter from Word into Excel.

5. Talk with a language expert to help you understand whether there are letter combinations that are really letters on their own. You can use the same "**Find**, **Reading Highlight**, **Highlight All**" system to determine how often these double letters occur. You will need to make sure not to double count letters, such as "a" and "aa."

6. Once you have the full list of letters, you can sort by the Letter Frequency column. This will tell you the most frequent letters.

Figure D. Letter frequency sorted from most to least frequent

e	521	m	88
a	469	b	69
t	407	f	62
i	347	y	59
o	331	v	40
n	316	j	13
s	315	q	6
l	249	z	3
h	221	x	1
d	214	Total letters	4712
Etc…			

7. You then need to convert this list to 100 letters, since that is the total number of letters for the EGRA sub-task. To get a total of the letter frequency, summarize the frequency in the list. For example, let's say you have 4,712 letters in your text. Then you divide each of the individual letter frequencies by the total frequency to get the percentage that each letter appears. In the example above, N appears 316 times out of 4,712 total letters. If you divide 316 by 4,712, the letter N represents 6.6% of letters in the text sample.

Figure E. Letter frequencies as a % of all letters

Letter	Frequency	% of all letters
e	521	11.1%
a	469	10.0%
t	407	8.6%
i	347	7.4%
o	331	7.0%
n	316	6.7%
s	315	6.7%
l	249	5.3%
h	221	4.7%
d	214	4.5%
w	199	4.2%
r	192	4.1%
p	138	2.9%

8. Then create a column of 100 letters that reflects those percentages. In the example above, because the letter N represents 6.6% of the 4,712 letters, include 6 N's. (Note: Rounding down is advised. If a letter appears more than approximately 15% of the time, you may want to reduce the number of times the letter appears in the EGRA test, in order to ensure that all letters are tested. You may need to adjust the number of times each letter appears slightly, to ensure you end up with a list of 100 letters.)

Figure F: List of 100 most frequently occurring letters

9. Once you have the list of 100 letters, make approximately half the number of each letter

1	e		70	w
2	e		71	w
3	e		72	w
4	e		73	r
5	e		74	r
6	e		75	r
7	e		76	r
8	e		77	p
9	e		78	p
10	e		79	p
11	e		80	g
12	a		81	g
13	a		82	u
14	a		83	u
15	a		84	c
16	a		85	c
17	a		86	k
18	a		87	k
19	a		88	m
20	a		89	m
21	a		90	b
22	t		91	b
23	t		92	f
24	t		93	f
25	t		94	y
26	t		95	y
27	t		96	v
28	t		97	j
29	t		98	q
Etc…			99	z
			100	x

uppercase, and half the number lowercase. Then, using an Excel spreadsheet with a randomizer function, you can then randomize this list of 100 letters. Whenever you press **F9**, you will create a different randomized list. This can help you create alternate forms of the test.

Figure G. Randomized table of 100 letters

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

Stage 3: Identifying frequent words and creating a table of 50 randomized words

1. To obtain a list of frequent words, use the Word document of text. First you need to place each word on its own line. To do this, go to **Find and Replace**, and click on **More** on the bottom left of the box. This will give you more options. Click on **Special**. For **Find**, you want to click on **White Space**. Or you could just write in **^w**. For **Replace**, you want to find **Manual Line Break**. Or you could just type in **^l**. Click on **Replace All**. You should then have a list of words, with only one word per line. You may have to delete punctuation marks manually, or use the **Find** and **Replace** commands to delete them.

Figure H. Creating a list of words
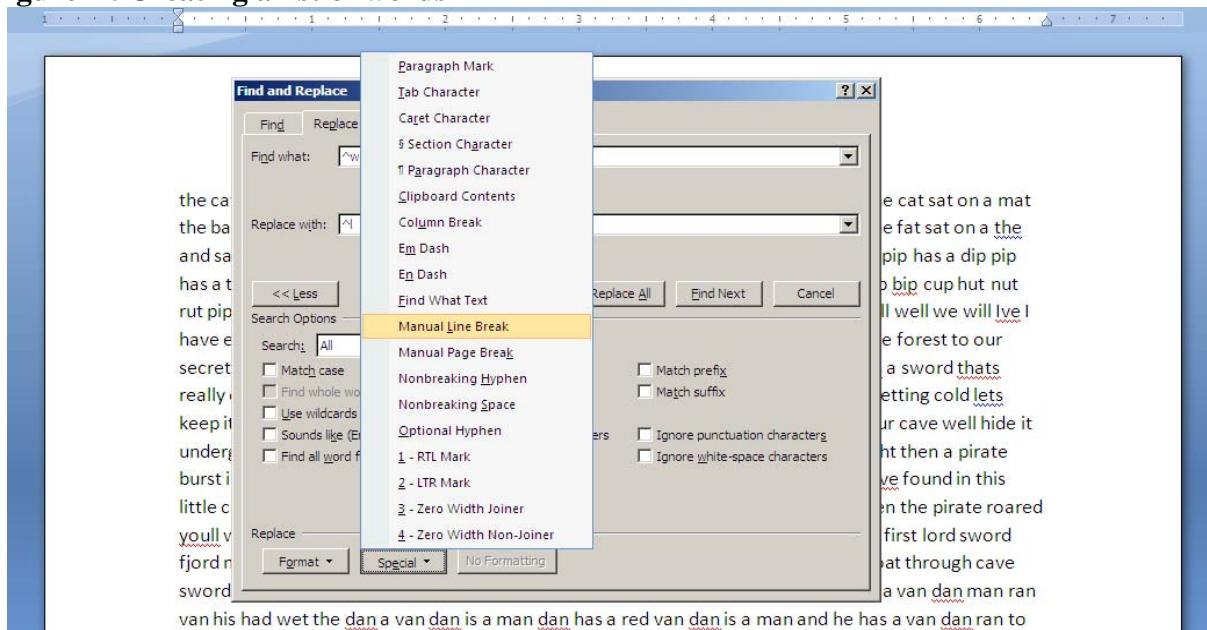
2. Once all of the words are in one column in your Word document, with one word per line, **Cut** and **Paste** the list into one column in Excel. Then you alphabetize the column by sorting from A to Z (**Sort & Filter** tab).

3. Next, use the **COUNTIF** command to determine how many of each word appear in your text sample. The figures below show how the formula works and the output you will receive.

Figure I. Counting the frequency of each word in the text sample

	A	B
1	the	=COUNTIF($A$1:$A$4629,A1)
2	cat	=COUNTIF($A$1:$A$4629,A2)
3	the	=COUNTIF($A$1:$A$4629,A3)
4	fat	=COUNTIF($A$1:$A$4629,A4)
5	rat	=COUNTIF($A$1:$A$4629,A5)

4. Then you can **Cut** and **Paste** the list again, into another column in Excel, and sort by the most frequent words on the list. Now you have your most common words in order of most to least frequent. In Excel, number a column from 1 to 50. Next to each number, write the words in order from most to least frequent. Now you have a list of the 50 most commonly appearing words in the list and can randomize this as needed to create alternate forms. This method can also be used to create syllable frequency lists.

Exhibit J. List of 50 most frequent words

1	the
2	to
3	and
4	he
5	we
6	is
7	in
8	will
9	has
10	of
11	his
12	on
13	up
14	song
15	it
16	Etc… (until 50)

5. Before creating your table of most frequent words, be sure to review the word list with your language expert and others at the adaptation workshop. For example, make sure the words are appropriate for a young child (some textbooks may actually have words that are not suitable), are spelled correctly, and are appropriate for the dialect (if dialect is an issue). Do not include one-letter words in your word list, as these will already be included in your letter subtask. You may sometimes find words that need to be replaced, due to dialect or other issues; if that is the case, take another word from the frequent word list.

Exhibit K. Table of 50 familiar words

his	lets	we	sing	out
down	of	to	now	mice
grow	up	then	seeds	mat
it	cave	sat	now	not
this	cake	on	and	he
van	mud	would	in	fat
ill	the	make	want	will
our	me	song	said	got
plain	row	has	rat	is
our	all	lake	wake	cat

6. For the nonword or "invented" word subtask, you can use this same process for creating a table of nonwords. Once you have your list of 50 nonwords, use the randomizer table function in Excel to present them in table format.

Annex 8: Criteria for Oral Reading Fluency and Comprehension Stories

Criteria for creating a short story
Appropriate for children (content related to familiar events, their interests, and their curiosity and evokes positive emotions)
Has the elements of a short story: a character, context, beginning, obstacle or problem, and a resolution
Does not already exist or remind children of stories or legends they already know
Length of approximately 60–80 words
Composed of short sentences
Uses present tense
Vocabulary appropriate to the region of the children to be tested, and age appropriate
First sentence should be very easy
Varied structure (syntax) but not too literary/complicated
Allows for a variety of comprehension questions
Fewer than two words that are more than 3 syllables (depending on language; for some languages, words may be longer)
Only one proper name (reduces the need to decode while reading)
Does not have letters or accents that are very rare, or many silent letters (depending on language, other complexities may present themselves and need to be reduced)
Comprehension questions
Questions include at least two inferential questions (i.e., questions not directly found in the text).
No questions included that a child could answer with a "yes" or "no" response.
Questions do not ask child to define vocabulary.
Questions are concrete and refer to something concrete.
Questions do not require a great deal of interpretation to understand.

Sample Reading Comprehension Stories (text, questions, and answers)

Example 1: *(more appropriate for older readers)*

My name is Umar. I live on a farm with my mother, father, and sister Aisha. Every year, the land gets very dry before the rains come. We watch the sky and wait. One afternoon as I sat outside, I saw dark clouds. Then something hit my head, lightly at first and then harder. I jumped up and ran towards the house. The rains had come at last.

1. Where does Umar live? [*on a farm; home; with his mother, father, and sister Aisha; with family*]
2. Why does the land get dry? [*The rains haven't come; there is a drought; there is a dry season; God doesn't send the rain*]

3. Why do Umar and his family watch the sky? [*hoping the rains come; waiting for the rain*]
4. How do you think Umar felt when the rains came? [*excited, thankful, happy, any reasonable answer*]

Example 2: *Note: This passage was translated into another language for EGRA testing; the example is provided as an illustration of story content and structure only, not as an example of appropriate English words.*

One day, Musa and his friend Ali got together to eat rice. Musa took too large a bite and the rice choked him. He started to cough. Ali was very concerned. So he quickly brought water for him to drink. After Musa drank water, they finished eating their rice. Then they ran off to play soccer.

1. What did Musa and Ali do together? [*ate a meal; ate rice*]
2. What happened while they were eating? [*Rice choked Musa; Musa took too large a bite*]
3. Why was Ali very concerned? [*Rice choked Musa; Musa was coughing; Musa might not be able to breathe; he might die*]
4. How did Ali help Musa? [*He brought him some water to drink*]
5. How do you know Musa got better? [*Because Musa wasn't choking anymore; he was able to finish eating his rice; Musa and Ali went to play soccer*]

Example 3:

James likes to play. One day he and his friend Tom ran into the bush to play. James hid and then Tom saw his head. The boys had a lot of fun with this game. Tom ran, but James did not find him. Tom and James smiled. Soon it became too dark to play. Both boys went home for dinner.

- Who did James play with? [*Tom*]
- Where did the boys like to play? [*bush*]
- What did Tom see after James hid in the bush? [*James's head; head*]
- Why did the boys have to stop playing? [*It became too dark*]
- What did the boys do at the end of the story? [*went home; ate dinner*]

Example 4:

John had a little dog. The little dog was fat. One day John and the dog went out to play. The little dog got lost. But after a while the dog came back. John took the dog home. When they got home, John gave the dog a big bone. The little dog was happy, so he slept. John also went to sleep.

- Who had a dog? [*John*]
- Was the dog thin or fat? [*fat*]
- Was the dog big or little? [*little*]
- Where did John take the dog? [*to play; home*]
- Why was the dog happy? [*got a bone*]

Sample Listening Comprehension Stories (text, questions, and answers)

Example 1:

On Sundays, Sally and Ann like to play. They go to the church yard. They jump rope. They jump rope fast. But they also make mistakes.

1. Sally and Ann go to play on what days? [*Sundays*]
2. Where do they like to play? [*church yard*]
3. Do Sally and Ann jump fast? [*yes*]

Example 2: *Note: This passage was translated into another language for EGRA testing; the example is provided as an illustration of story content and structure only, not as an example of appropriate English words.*

Zainab likes school. Every day she does her homework using her favorite pencil. One day Zainab forgot to put her pencil away. Her brother Khalid took the pencil and broke it. When Zainab went to do her homework, she could not find her pencil. She looked and looked for it. Khalid saw Zainab was sad. So he started to fetch water for money, then he bought Zainab another pencil. They both were happy.

1. What does Zainab like? [*to go to school; her favorite pencil*]
2. Why did Zainab feel sad? [*She could not find her pencil; her brother Khalid took her pencil and broke it; it was her favorite pencil*]
3. How did Khalid feel about breaking Zainab's pencil? [*sad; scared Zainab would be mad; felt guilty and wanted to replace the pencil; any reasonable answer*]
4. How did Khalid get the money to buy another pencil? [*fetched water*]
5. What could Zainab do to avoid a problem with her pencil in the future? [*put the pencil in her backpack when she finishes using it; ask her brother not to take it; share it with her brother only when she is home; or any reasonable answer*]

Annex 9: Basic EGRA Subtask Scoring

Letter Names and Sounds
- Out of 100 items

- Letters correct per minute (clpm)

- If student did not finish before time ran out (i.e., used all 60seconds): count the number of items attempted and subtract from the number of items that were scored incorrect. This number is the number of letters correctly identified in one minute, which will be the score.

- If students attempted all items before time ran out (i.e., used less than 60 seconds):

$$correct\_letters\_per\_minute = correct\_letters * \frac{60}{time\_elapsed}$$

Initial Sounds and Other Phonemic Awareness Subtasks
- Out of 10 items

- The score will be the number of items the student answered correctly.

Familiar and Nonword Fluency
- Out of 50 items

- Words or nonwords correct per minute (wcpm or nwcpm)

- If student did not finish before time ran out (i.e., used all 60seconds): count the number of items attempted and subtract from the number of items that were scored incorrect. This number is the number of words or nonwords correctly read in one minute, which will be the score.

- If students attempted all items before time ran out (i.e., used less than 60 seconds):

$$correct\_letters\_per\_minute = correct\_letters * \frac{60}{time\_elapsed}$$

Oral Reading Fluency
- Out of number of words in the story items

- Words correct per minute (wcpm)

- If student did not finish before time ran out (i.e., used all 60seconds): count the number of items attempted and subtract from the number of items that were scored incorrect. This number is the number of words correctly read in one minute, which will be the score.

- If students attempted all items before time ran out (i.e., used less than 60 seconds):

$$correct\_letters\_per\_minute = correct\_letters * \frac{60}{time\_elapsed}$$

Oral Reading Comprehension
- Out of 5 questions or out of the number of questions the student was asked, based on the amount of the story read above

- This score can be reported in two ways:

  o Percentage of questions correctly answered out of the total possible (usually 5 questions)—amount of total story understood

  o Percentage of questions correctly answered out of the number attempted (based on the amount of the story students read)—amount of story understood based on what was read

- Can also be reported simply as number of questions correct out of total or number attempted

Listening Comprehension
- Usually out of 5 questions

- Percentage of questions correctly answered out of the total possible (usually 5 questions); amount of total story understood

- Can also be reported simply as number of questions correct out of total

Annex 10: Sample Agendas for Adaptation Workshops

Sample Agenda for Adaptation Workshop—Example 1
(four-day adaptation workshop followed by two days of training for pilot)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
OVERVIEW OF EGRA	EGRA and LANGUAGE	ASSESSMENT TRAINING	FIELD TESTING	PILOT TRAINING—DAY 1	PILOT TRAINING—DAY 2
9:00–9:30 Welcome and introductions [NEI project staff] **9:30–10:00** Introduction to EGRA in the context of [country] **10:00–10:30** Why early grades? Why reading? [Reading Specialist] **10:30–10:45** Break **10:45–12:00** Overview of EGRA purpose, methods of measurement, and potential use of results [Reading Specialist] **12:00–1:00** Introduction to EGRA Subtasks Part 1 [Reading Specialist]	8:30–10:30 Introduction to [language] orthography and issues related to early reading in [insert name of country or region] [Linguist] **10:30–10:45** Break 10:45–1:00 Continued discussion on language issues [Linguist]	8:30–9:30 Review of language adaptation work [Linguist] **9:30–10:30** Training on subtask implementation [Reading Specialist & Linguist] **10:30–10:45** Break **10:45–1:00** Training on subtask implementation (with practice) [Reading Specialist & Linguist]	**8:30–1:00** Field testing of instrument in local schools	**8:30–10:30** Guided practice: review of the subtasks/practice in pairs, Subtask 1 **10:30–10:45** Break **10:45–1:00** Guided practice: review of the subtasks/practice in pairs, Subtask 2	**8:30–10:30** Guided practice: review of the subtasks/practice in pairs, Subtask 5 **10:30–10:45** Break **10-45–11:30** Guided practice/ practice in pairs, Subtask 6 **11:30–1:00** Guided practice/ practice in pairs, Subtask 7

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00
2:00–3:30 Introduction to EGRA Subtasks Part 2 [Reading Specialist] **3:30–3:45** Break **3:45–4:30** Discussion of EGRA subtasks and their purposes [Reading Specialist]	**2:00–3:30** Language group work (goal of adapting the EGRA) [Reading Specialist & Linguist] **3:30–3:45** Break **3:45–4:30** Finalize draft EGRA instrument [Reading Specialist & Linguist]	**2:00–2:45** Continued training on subtask implementation) [Reading Specialist & Linguist] **2:45–3:00** Break **3:00–4:30** Plenary practice on EGRA assessment	**2:00–3:30** Discuss preliminary findings from field testing [Reading Specialist & Linguist] **3:30–3:45** Break **3:45–4:30** Come to initial agreement on protocols for improvement (group reporting back)	**2:00–5:30** Guided practice: review of the subtasks/practice in pairs, Subtasks 3 and 4	**2:00–4:30** Identify pilot teams, review logistics for pilot

Sample Agenda for Adaptation Workshop—Example 2
(five-day adaptation workshop for two languages)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OVERVIEW OF EGRA	EGRA AND LANGUAGE	ASSESSMENT TRAINING	FIELD TESTING	DISCUSSION OF RESULTS
8:30–9:00 Welcome and introductions [EGRA Team Leader] **9:00–9:30** Introduction to EGRA in the context of [country] [EGRA Team Leader or other appropriate person] **9:30–10:00** Importance of education quality [EGRA Team Leader] **10:00–10:30** Why early grades? Why reading? [Reading Specialist] **10:30–10:45** Break **10:45–12:00** Review international literature on early grade reading [Reading Specialist] **12:00–1:00** Introduction to EGRA Subtasks Part 1[Reading Specialist]	**8:30–9:30** Review of agreements for EGRA in [country] **9:30–10:30** Detailed discussion of EGRA subtasks [Reading Specialist] **10:30–10:45** Break 10:45–12:15 **Detailed discussion of EGRA subtasks [Reading Specialist]** 12:00–1:00 **Introduction to Language 1 orthography and issues related to early reading [Language Expert]**	**8:30–9:00** Review of language adaptation work **9:00–9:30** Instructions on field-testing and logistics [Reading Specialist, EGRA Team Leader] **9:30–10:30** Training on subtask implementation [Reading Specialist] **10:30–10:45** Break **10:45–1:00** Training on subtask implementation (with practice)	**7:30–1:00** Field testing of assessment in schools (language specific, if possible)	**8:30–9:00** Presentation of preliminary results from field testing **9:00–10:30** Come to preliminary agreement on protocols for improvement (group reporting back) **10:30–10:45** Break **10:45–1:00** Come to preliminary agreement on protocols for improvement (group reporting back)

LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00
2:00–3:00 Introduction to EGRA Subtasks Part 2 [Reading Specialist] **3:00–3:30** Review of EGRA findings **3:30–3:45** Break **3:45–4:30** Discussion of mother tongue and local language learning [Reading Experts, Local Language Experts, etc.] **4:30–5:30** Agreement on EGRA subtasks for this assessment	**2:00–2:30** Introduction to Language 2 orthography and issues related to early reading **2:30–3:30** Language group work (goal of adapting the EGRA for the [number of] languages) **3:30–3:45** Break 3:45–5:00 **Language group work (with the goal of adapting the EGRA for the [number of] languages)** 5:00–5:30 **Language group reports back**	**2:00–2:45** Continued training on subtask implementation **2:45–4:00** Group practice on EGRA assessment **4:00–5:00** Language-of-instruction instrument training **5:00–5:30** Language-of-instruction instrument practice	2:00–3:30 **Discuss preliminary findings from field testing** **3:30–3:45** Break **3:45–5:00** Language group work to discuss field testing results	**2:00–4:00** Wrap up, conclusions, next steps

Annex 11: Sample Assessor Handouts

Early Grade Reading Assessment (EGRA): Country Name

Sample Assessor Handouts[1]

Date

Supported by

Assessor Observation Checklist

Supervisor: _____ Assessor: _____Date: _____

Checklist Items	Observed?
GENERAL INSTRUCTIONS: DEVELOPING RAPPORT; GAINING CONSENT	✓
1. Assessor is relaxed and makes the child feel comfortable.	
2. Assessor reads aloud the consent text verbatim, obtains a verbal response, and checks the verbal consent box.** If child declines to participate, assessor thanks the child and tells him/her to return to class.	
3. Assessor completes data on first page, including the time test is started.	
SUBTASK 1: LETTER SOUND IDENTIFICATION (Timed)	
1. Assessor follows script of instructions to the child, without adding unnecessary words.**	
2. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed.** Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
3. Assessor holds response sheet on clipboard outside of child's visual range.	
4. Assessor marks letters read incorrectly with a slash through the middle of the word.**	
5. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
6. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
7. If child hesitates for 3 seconds, assessor provides the sound of the letter, points to the next letter and says, "Go on."**	
8. If child gets even 1 letter sound right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor then places a bracket behind the last word read and enters the seconds remaining.**	
9. Assessor marks a bracket at the point reached by child after 60 seconds have passed and enters the seconds remaining.**	
10. If child completes page before 60 seconds have passed, the assessor stops the stopwatch, places a bracket behind the last letter read, and notes seconds remaining at bottom of page.**	
SUBTASK 2: INITIAL SOUND IDENTIFICATION (PHONEMIC AWARENESS)	
1. Assessor follows script of instructions to the child, without adding unnecessary words.**	
2. Assessor takes the stimulus booklet/papers away from the child (this is an oral exercise).	
3. Assessor holds response sheet on clipboard outside of child's visual range.	
4. If child gets even 1 of the sounds right in the first 5 words, assessor allows the child to continue.**	
5. If the child does not respond after 3 seconds, assessor marks "No response" and says the next prompt.	
6. If child does not correctly answer the first 5 initial sounds, the assessor discontinues the subtest and checks the box indicating that the subtest was discontinued.	
SUBTASK 3: SYLLABLE NAMING (Timed)	
1. Assessor turns to correct page in the stimulus book and places it before the child.	
2. Assessor follows script of instructions to the child, without adding unnecessary words.**	
3. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the	

end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
4. Assessor holds response sheet on clipboard outside of child's visual range.	
5. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
6. If child could read no syllables in the first line, assessor brackets the last syllable in the line and checks the box indicating that the subtest was discontinued. Finally, assessor notes seconds remaining on the stopwatch in the box at the bottom.	
7. If child gets even 1 syllable right in the first line, assessor continues for the full 60 seconds. Assessor then places a bracket behind the last syllable read and enters the seconds remaining.	
8. If child hesitates for 3 seconds, assessor provides the syllable, points to the next syllable, and says, "Go on."**	
9. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
10. If child attempts all syllables before 60 seconds have passed, the assessor places a bracket behind the last word read and notes seconds remaining at bottom of page.	
SUBTASK 4: FAMILIAR WORD READING (Timed)	
1. Assessor turns to correct page in the stimulus book and places it before the child.	
2. Assessor follows script of instructions to the child, without adding unnecessary words.**	
3. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed.	
4. Assessor holds response sheet on clipboard outside of child's visual range.	
5. Assessor marks words read incorrectly with a slash through the middle of the word.	
6. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
7. If child could read no words in the first line, assessor brackets the last word in the line and checks the box to discontinue section. Assessor writes the seconds remaining in the box at the end of the page.**	
8. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	
9. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
10. If child completes page before 60 seconds have passed, the assessor places a bracket behind the last word read and notes seconds remaining at bottom of page.	
SUBTASK 5: NONWORD READING (Timed)	
1. Assessor turns to correct page in the stimulus book and places it before the child.	
2. Assessor follows script of instructions to the child, without adding unnecessary words.**	
3. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
4. Assessor holds response sheet on clipboard outside of child's visual range.	
5. Assessor marks words read incorrectly with a slash through the middle of the word.	
6. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
7. If child could read no words in the first line, assessor brackets the last word in the line and checks the box to discontinue section. Assessor writes the seconds remaining in the box at the end of the page.**	
8. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	

9. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
10. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor notes seconds remaining in the box at the end of the page.**	
SUBTASKS 6A & 6B: PARAGRAPH READING (Timed) AND COMPREHENSION	
1. Assessor turns to correct page in the stimulus book and places it before the child.	
2. Assessor follows script of instructions to the child, without adding unnecessary words.**	
3. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
4. Assessor holds response sheet on clipboard outside of child's visual range.	
5. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
6. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	
7. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor enters seconds remaining in the box below.	
8. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
9. Assessor takes text passage away from the child before beginning to ask questions.	
10. Assessor only asks questions for which the pupil has read the entire line of text.**	
SUBTASK 7: LISTENING COMPREHENSION	
1. Assessor takes the stimulus booklet/papers away from the child (this is an oral exercise).	
2. Assessor reads story to child with expression.	
3. Assessor asks comprehension questions, marking them either correct, incorrect, or no response.	
4. If the child hesitates for more than 3 seconds after the question is asked, assessor continues to the next question	

**MAJOR ERRORS
<u>**Notes:**</u>

Basic EGRA Scoring Rules

✓ **Incorrect answers and omissions**: Put a diagonal slash through the middle of incorrect letters and words.

✓ **Skipped lines:** Draw a line through any row of words or letters skipped.

✓ **Self corrections:** If student self-corrects within 3 seconds, circle the item already slashed through and score as correct

✓ **Bracketing:** When the child stops reading (or you tell him/her to stop because 60 seconds is up), put a bracket behind the last word read.

Overview of EGRA

❖ **Why assess early grade reading?**

The ability to read and understand a simple text is one of the most fundamental skills a child can learn. Children who cannot read cannot learn well in school. Yet in many countries, students enrolled in school for as many as six years are unable to read and understand a simple text. Recent evidence indicates that learning to read both *early* and at a sufficient *rate* are essential for learning to read well. Acquiring literacy becomes more difficult as children grow older; children who do not learn to read in the first few grades are more likely to repeat and eventually drop out.

> **EGRA helps us to determine whether children are reading well…and if not, EGRA then helps us to identify specific improvements that can be made regarding the teaching of reading.**

Because reading is a skill that is fundamental to learning, EGRA provides an indication as to whether an education system is successfully educating children. In other words, are all the "inputs" into the education system leading to an effective outcome: pupils able to read and learn?

❖ **What is the Early Grade Reading Assessment?**

EGRA is a diagnostic tool that assesses the *most basic foundation* skills for literacy acquisition in early grades. The test is conducted orally and one-on-one with pupils, and takes about 15 minutes to administer per child. EGRA includes timed subtasks (1 minute) covering reading skills shown to be essential for fluent reading: alphabetic principle, phonemic awareness, phonics/decoding, listening comprehension and vocabulary, and oral text-reading and comprehension segments. The EGRA subtasks assess children's ability to: identify letter names and sounds, read familiar and "invented" nonwords (to determine their ability to decode words), understand a story read to them orally, and read and understand a simple paragraph of text. Each EGRA is adapted for a particular country, context, and language.

❖ **How is EGRA being used in Country X?**

EGRA is being used in Country X to help assess the effectiveness of the education system, as well as to evaluate the effectiveness of the Country X Northern Education Initiative (NEI), a project funded by USAID. EGRA was conducted in English and will soon be conducted in Language X as well.

> **What EGRA tests**
>
> ✓ **Phonemic awareness:** The ability to notice, think about, and work with the individual sounds of spoken words
>
> ✓ **Alphabetic principle:** Knowing that each letter has a sound
>
> ✓ **Phonics (decoding):** The ability to blend letter sounds into words
>
> ✓ **Sight Words:** The ability to recognizing familiar words without decoding
>
> ✓ **Oral reading fluency and text comprehension:** The ability to read with understanding

➢ **EGRA English:** The test was administered to approximately 1,800 pupils in P4 in June 2010 in Sokoto and Bauchi States. It was designed to complement the Student Achievement Test (STAT), a test of children's knowledge of the curriculum. The assessment will help to determine whether children's performance on the curriculum test is related to their ability to read (i.e., Do children who do poorly on STAT know how to read?). The EGRA English will help NEI to

monitor and evaluate its project in selected schools. Preliminary analysis from the EGRA English data collection reveals that pupils are unable to read fluently and with comprehension.

> **EGRA Language X:** Learning to read in a familiar language (or one's "mother tongue") is critical to being able to read a second language, such as English. This is because children come to the classroom with an extensive vocabulary, and they are able to learn to read more quickly in a language that is familiar to them. They can then transfer literacy skills to another language.

In northern parts of Country X, children are supposed to learn to read Language X in classes P1–P3. Therefore, NEI has developed an EGRA for the Language X language to provide a "snapshot" of children's ability to read in Language X in Bauchi and Sokoto States. The test was piloted in November 2010. A full survey in Bauchi and Sokoto States will be conducted in February/March 2011.

❖ **What are some advantages and long-term possibilities for using EGRA in Country X?**

One benefit of EGRA is that it can be conducted on a sample of pupils, but still provide a reliable indicator as to school effectiveness. EGRA also helps us to see where there are "gaps" in children's reading skills and to design effective intervention programs. Over the long term, EGRA could be used in Country X as an indicator of the effectiveness of the education system. Since reading is a fundamental skill that is highly correlated to learning, EGRA could be used to determine if the system is achieving the goal of universal basic education. Moreover, the results from EGRA can be used to improve service delivery in many areas, including teacher training, assessment, and data collection and management.

Advantages of EGRA

- It is a sample-based measure of learning (assess a few pupils to tell you about a large group).

- It provides feedback on specific skills needed for fluent reading.

- It assesses the early grades, when reading needs to be learned (end of P1 at the latest).

- It is easy to score and analyze.

For more information on EGRA, visit: www.eddataglobal.org
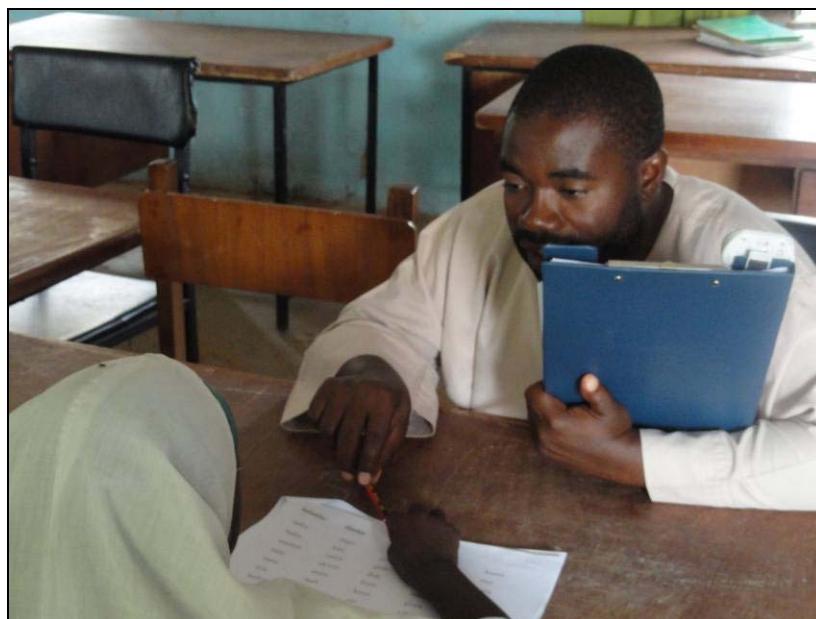
Interaction with Pupils During EGRA Administration

Immediately upon contact with a pupil, engage with the pupil in a friendly manner. Follow the suggestions below for building rapport with pupils, to make sure they are "at ease" when taking the EGRA test.

Building Rapport

Building a positive rapport with the pupil you are assessing is a crucial part of successful assessment. When a pupil feels at ease with you, the pupil will be more motivated to continue the assessment and more likely to demonstrate optimal skill levels. The following list offers useful guidelines about the rapport-building period:

- **Spend approximately 1–2 minutes on this period**. Less than 1 minute may not be long enough to put the pupil at ease with you as a stranger, and much longer than this may be an inefficient use of time and make it more difficult to bring the child to the task of assessment.

- **Be self-assured and positive about the experience**. Do not apologize for taking the pupil to do an assessment. Many pupils find the assessment like a game and have fun doing it. Present it this way in a smiling and relaxed manner. Pupils will take their cue from you regarding what the experience will be like.

Demeanor

Maintain a warm, positive, and calm demeanor throughout testing, regardless of pupil performance. Pupils are very perceptive. Be cognizant of your facial expressions during testing, avoiding looking impatient or worried or giving facial cues that indicate correct responses. In addition, it will be easier to monitor your own behavior if you keep your attention on the testing rather than engaging in long conversations with a pupil.

Appropriate Encouragement

The key to appropriate encouragement during assessment is to *praise the effort, rather than the behavior.* Thus, avoid offering praise that indicates a correct response. The text box provides some additional examples of appropriate praise and responses.

Appropriate vs. inappropriate encouragement

Appropriate encouragement to give to the child includes statements such as:
- o You are working hard!
- o You seemed to like that!
- o I like the way you are listening!

Not appropriate encouragement to give to the child includes statements such as:
- o Good job!
- o Excellent!
- o Great!

Key Rules for Administering EGRA

- **3-second rule:** If a child hesitates to answer for more than three seconds on a given item, put a slash mark through the item (letter or word) to mark it as incorrect. Point to the next item and ask the child to go on.

- **Early stop rule:** If a child is unable to provide a correct answer on any item in the first row or section of a subtask, thank the child, mark the box at the bottom of the scoring page, discontinue the subtask, and move on to the next subtest.

- **Stopwatches and brackets:** Start the stopwatch when the child first speaks, or—using the 3 second rule—when you have to provide the word. When the child stops reading, first press the stopwatch, then put a bracket after the last word/letter attempted, and finally enter the seconds remaining.

- **Scoring:**
  - <u>Skipped letter/word rule</u>: If the child skips a letter or word, put a slash through the letter/sound, point to the next item, and tell him or her to "go on."
  - <u>Skipped row rule</u>: If the child skips a row of letters or words, put a line through the entire row.
  - <u>Self corrections</u>: If the child makes a mistake and you've already put a slash, circle the word/letter and count it as correct.
- **Questioning:**
  - <u>Repeating questions</u>: If a child asks you to repeat a question or does not understand, you can repeat it only ONCE.
  - <u>Comprehension questions</u>: Only ask questions that pertain to the lines of text that the student has read. Do NOT ask questions for text that the student has not read.

- **Pronunciation:**
  - <u>Sections 1 & 2</u>: Letter sounds /b/, NOT /ba/, or letter name "bee"
  - <u>Section 3: Syllables</u>: Only **the SHORT vowel** sound is correct.
  - <u>Section 4: Words:</u> Accept any correct pronunciation **with the same spelling.**

Marking Rules for EGRA

Your most important job is to correctly administer and mark the EGRA test correctly and according to the rules. As an administrator, you must be familiar with the rules for marking the test. These rules should become automatic for you, and by the time you administer the test to pupils, you should not need to refer to any directions.

Subtask	Timing	Discontinue rule	If pupil does not provide response
Letter sound identification	Start stopwatch after child says first letter	First 10 letters (1st row/line) incorrect	Mark as incorrect. Provide letter sound, point to the next letter, and say, "Please go on." (NOTE: If the pupil provides the letter name rather than the sound, provide the letter sound and say: "Please tell me the SOUND of the letter." This prompt may be given only once during the exercise.)
Initial sound identification	NOT TIMED	First 5 words incorrect	Mark as incorrect. Say the next word.
Syllable naming	Start stopwatch after child says first syllable	No syllables in first row read correctly	Mark as incorrect. Provide the syllable, point to the next syllable, and say, "Please go on."
Familiar word reading	Start stopwatch after child says first word	No words in first row read correctly	Mark as incorrect. Provide the word, point to the next word and say, "Please go on."
Nonword reading	Start stopwatch after child says first word	No words in first row read correctly	Mark as incorrect. Provide the word, point to the next word, and say, "Please go on."
Oral reading fluency	Start stopwatch after student reads first word in text.	No words in first row read correctly	Mark as incorrect. Provide the word, point to the next word, and say, "Please go on."
Reading comprehension	NOT TIMED	Ask ONLY questions pertaining to lines the child read.	Mark "No response." Ask the next question.
Listening comprehension	NOT TIMED	None	Mark "No response." Ask the next question.

Preparing for the EGRA Assessment

The day before the assessment

The day before, contact your EGRA Team Supervisor to determine the name and location of the school you will be visiting. Make sure you know what time and from where you will be leaving in order to arrive at the school by 8 a.m.

Before you travel to the school, your EGRA team will receive materials necessary for conducting the assessment at each school. This will include the following:

- ✓ EGRA Language X instrument (for administrator to score)
- ✓ Pupil "stimuli" sheets (with items the child reads)
- ✓ Teacher questionnaires
- ✓ Head teacher questionnaires
- ✓ Clipboard
- ✓ Stopwatch
- ✓ Pencils for scoring the EGRA test
- ✓ Pencil sharpener
- ✓ Pupil gifts (pencil and/or notebook given to pupil following the completion of the test)

Make sure that the team has the necessary materials and equipment. Check that stopwatches are all in working order, that you have 20 counters, and that your pen is working. These assessment materials are the property of the project/study. As such, take special care not to lose or damage any items. We will provide sufficient quantity of envelopes in which you should store the instruments.

Before you arrive at the school, you should be thoroughly familiar with all materials so that you are able to access them quickly and smoothly throughout the assessment. Prior to each assessment, conduct a review (1) to refresh your memory of procedures and (2) to make sure that you have all needed materials.

Arriving at the school and getting set up

When you get to the school, meet the head teacher (and teachers) to inform him/her that you will spend the day at the school. Explain the purpose of this exercise: to assess pupils' reading ability and the context in which students learn. The results of the EGRA survey will be used to inform the Ministry of Education and other stakeholders on how to support schools and teachers better in the future.

Kindly request a **quiet place** where you can conduct your assessment (e. g., head teacher's office, unoccupied classroom, or library/reading room). This room needs to have a chair for you and the student and a table on which you can put student sheets. Often, you may be unable to find empty rooms or a library. In this case, ask the principal if you could use his/her office or some other similar space. It is also common that assessors sit outside to conduct their work; in this case, please ensure that you find a place that is not distracting to students.

Arranging the assessment materials

Work with your EGRA team to identify a space to set up materials for the assessment. Make sure that you will be able to access materials easily when needed. Materials should be easily accessible to you, but out of reach of the learner. Sit across from the pupil.
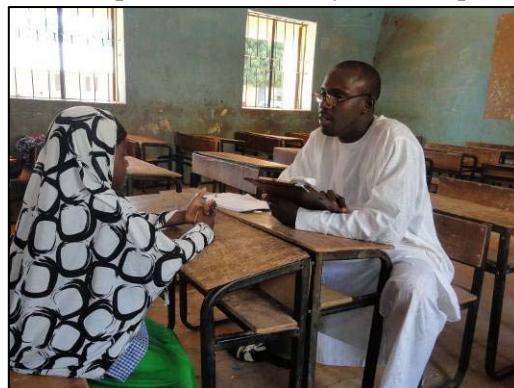
Reviewing Forms for Completeness and Accuracy

EGRA tests are like GOLD! This is why it is very important that you take time to make sure that you have recorded all information completely and accurately.

Before the pupil returns to class

- ✓ Make sure that you administered all sections of the test.
- ✓ Double check to make sure you have checked the "Consent" box on the front page.
- ✓ Give the child the small gift (pencil or notebook).

After the pupil returns to class

- ✓ File the pupil's assessment in the appropriate envelope.
- ✓ Clean up the surface area for the next pupil.
- ✓ Obtain a new assessment booklet for the next pupil.

After you have completed all EGRA tests for the day

- ✓ Count the number of tests to make sure you have conducted the necessary number of tests and that no forms are missing.
- ✓ Ensure that each test is complete.
- ✓ Verify that all writing is legible.
- ✓ Make sure that all of the paperwork has been filed in the correct envelope.
- ✓ Collect all your materials (stopwatch, pencil, pencil sharpener, etc.).
- ✓ Thank the teachers and head teachers.

Once you have left the school and arrived at your next destination, double check that you have all EGRA tests and that all materials are complete and in good condition.

EGRA Sampling Procedures at the School

For this sampling exercise, we will need to select 32 pupils per school. We will need to select the pupils randomly and select an even number of boys and girls (16 of each).

To select the pupils randomly:

1. **Line up all the P3 boys and P3 girls in two separate lines.** Count the total number of pupils. Let's say there are 50 boys and 45 girls, for a total of 95.

2. Based on the total enrollment (95), you will need to select 32 pupils for EGRA testing. You should select the same number of boys and girls, so in this case, 16 boys and 16 girls.

3. Next, **divide the total number of boys in line by the total number of boys needed for testing**. For this example, the calculation would be 50/16 = 3.1. We round down to 3 because the fraction is less than 0.5. This means we need to select every third boy in line.

4. Next, **divide the total number of girls in line by the total number of girls needed for testing**. For this example, the calculation would be 45/16 = 2.8. We then round up to 3 because the fraction is greater than 0.5. This means we need to select every third girl in line.

5. Select the boys and girls separately from each line.

6. **To select boys:** Count by 3 and ask every third boy to step aside.

7. **To select girls:** Count by 3 and ask every third girl to step aside.

8. **If you get to the end of the line of boys or girls but you still need more pupils for testing, continue counting from the beginning of the line.** For example, after selecting Girl 15, you then start counting from the beginning of the line. Because Girl 3 has already been selected, you select the next girl in line.

9. Ask all children to assemble outside the testing room.

10. A supervisor (during the full data collection) and someone from the school should assist you in managing the children who are waiting to be tested. Children should be kept quiet so they do not disturb testing in progress.

Boys	Girls
1.	1.
2.	2.
3.	3. Hawa (1)
4. Sadiq (1)	4. **[Girl 16]**
5.	5.
6.	6. Fatima (2)
7. Hamid (2)	7.
8.	8.
9.	9. Amina (3)
10. Aminu (3)	10.
11.	11.

12.	12. Haja (4)
13. Bilyaminu (4)	13.
14.	14.
15.	15. Rakiya (5)
16. Umar (5)	16.
17.	17.
18.	18. Maryam (6)
19. Yahaja (6)	19.
20.	20.
21.	21. A'isha (7)
22. Usman (7)	22.
23.	23.
24.	24. Rabia (8)
25. Jow (8)	25.
26.	26.
27.	27. Hadiza (9)
28. Musa (9)	28.
29.	29.
30.	30. Girl 10
31. Abubakar (10)	31.
32.	32.
33.	33. Girl 11
34. Boy 11	34.
35.	35.
36.	36. Girl 12
37. Boy 12	37.
38.	38.
39.	39. Girl 13
40. Boy 13	40.
41.	41.
42.	42. Girl 14
43. Boy 14	43.
44.	44.
45.	45. Girl 15
46. Boy 15	
47.	
48.	
49. Boy 16	
50.	

Using a Stopwatch

The use of the stopwatch is critical to the effective administration of the EGRA test. You must be able to easily and quickly set and stop the stopwatch so as not to distract the pupil during testing.

Setting the Stopwatch

To set the stopwatch for 1 minute, click once on the Minute Button (see *Minute Button* in picture below). The time will show up as 01:00 in the display. If the instructions specify less than 60 seconds, you will click on the Seconds Button (see *Seconds Button* in picture below).

Display

Minute Button

Start/Stop Button

Seconds Button
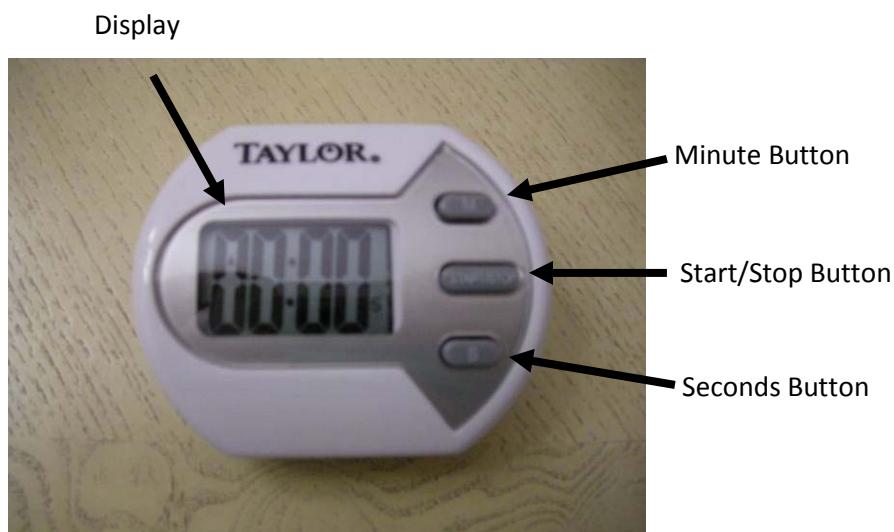
Starting and Stopping the Timing

To start or stop the time on the stopwatch, click *once* on the Start/Stop Button (see *Start/Stop Button* in picture above).

Clearing the Time on the Stopwatch

To clear the time on the stopwatch, hold down the *Minute Button* and the *Seconds Button* at the same time. This will reset the display to "00:00." If you clear the time on the stopwatch, make sure to reset the time to the number of seconds needed before beginning the next timed task. You do not want to stop after beginning a task to reset the stopwatch.

Annex 12: Sample Supervisor Handouts

Early Grade Reading Assessment (EGRA): Country Name

Sample Handouts for Team Supervisors[1]

DATE

Supported by:

---

[1] Originally prepared by RTI for a Hausa-language EGRA training in February 2011, funded by the USAID Nigeria Northern Education Initiative.

YOUR ROLE AS TEAM SUPERVISOR: KEY RESPONSIBILITIES

Each **Team Supervisor** is responsible for guaranteeing the quality of all the information collected. The Supervisor's key responsibilities include the following:

1. **Plan and organize work of the data collection team**.
   - Communicate with the Field Coordinator to ensure you know arrangements for transportation THE DAY BEFORE.
   - Communicate with team members to ensure that they are aware of all logistics prior to arrival at the schools.
   - Assign tasks to each assessor before and during each school visit, such as counting and organizing materials, sampling pupils, and setting up the testing area.

2. **Guarantee the team's on-time arrival at each school** BEFORE CLASSES START FOR THE DAY. Assure that the team arrives with all the necessary materials and equipment.

3. **Introduce data collection team and explain the purpose of the visit to school authorities**.

4. **Ensure that the number of pupils tested is based on the sampling framework.**

5. **Make sure the sampled pupils are available.** Ensure that all pupils are ready to be tested and that there are no delays in administration. Fill out the Pupil Sampling Worksheet.

6. **Supervise the work of administrators during the assessment.** Ensure correct application of instructions for each subtest, including use of the stopwatch.

7. **Guarantee that every pupil instrument administered is collected and complete.** Review each instrument to ensure that responses are properly noted and quality information is gathered.

8. **Conduct the Head Teacher interview using the questionnaire provided.**

9. **Conduct the Teacher interviews using the questionnaire provided,** or assign an assessor to assist with this task if you cannot.

10. **Make sure that Teacher and Head Teacher Questionnaires are completed before leaving the school.**

11. **Review and sign the School Fieldwork Visit Summary Sheet for each school**. Include this sheet with all instruments and questionnaires collected from a school. Put all documents in an envelope with the name of the school, date, and your initials.

12. **Maintain constant contact with your Fieldwork Coordinator** to communicate work progress and resolve problems that arise.

13. **Deliver all packages of instruments collected from all schools assigned to your team to the Field Coordinator**. These should be provided each time your team returns to [testing place]. THESE PACKAGES OF COMPLETED INSTRUMENTS ARE LIKE GOLD. TREAT THEM AS SUCH! Make sure to obtain the Field Coordinator's signature and the date for each school package delivered.

14. **Write a Fieldwork Report** to give to the Fieldwork Coordinator at the end of all fieldwork. This report should contain the points stipulated in the Fieldwork Report Guide in the appendix. You should write the report throughout data collection to ensure you do not forget important information.

If you encounter any problems during data collection, call your Fieldwork Coordinator immediately:

- **Name 1:   080 55555555**
- **Name 2:   080 7777777**

PUPIL SAMPLING WORKSHEET

SCHOOL NAME: _____ District: _____ Region:
_____

SAMPLING INTERVAL - **GIRLS:** [_____] **divided by** [_____] = [_____]

Total pupils present on day of sampling in   Desired sample   Sampling interval: Use this number to
Grade X (all class sections combined)   size   identify sample pupils and alternates.

SAMPLING INTERVAL - **BOYS:** [_____] **divided by** [_____] = [_____]

Total pupils present on day of sampling in   Desired sample   Sampling interval: Use this number to
Grade X (all class sections combined)   size   identify sample pupils and alternates.

	PUPIL'S NAME	Section	Gender (M or F)	Date of birth Month/Yr		PUPIL'S NAME	Section	Gender (M or F)	Date of birth Month/Yr
1					19				
2					20				
3					21				
4					22				
5					23				
6					24				
7					25				
8					26				
9					27				
10					28				
11					29				
12					30				
13					31				
14					32				
15					33				
16					34				
17					35				
18					36				

Materials Checklist

The **Team Supervisor** is responsible for making sure that the team has all the materials needed each day. Some materials you will need to get each day, while others you will use throughout data collection.

REVIEW THIS LIST BEFORE YOU GO TO EVERY SCHOOL!

<u>**Materials to be used at each school—need to get a new supply every day!**</u>

Number needed at each school	ITEM
TBD	EGRA test instrument (includes Pupil Context Questionnaire)
1	Head Teacher Questionnaire
TBD	Teacher Questionnaire (extras should be used at next school)
TBD	Small gift (pencil and notebook) for pupils (include extras)
1	Envelope with EGRA tests, Head Teacher and Teacher Questionnaires
1	Copy of introductory letter and study authorization from Ministry of Education
1	*School Fieldwork Summary Sheet* (to be filled in by Supervisor)
1	*Pupil Sampling Worksheet*

<u>**Materials to be re-used**</u>

Number needed at each school	ITEM
1	Large clipboards (1 for each assessor and 1 for the supervisor)
1	List of sample schools to be visited by the team, with dates, address, telephone number, Head Teacher's name, number of children to be sampled, and any special information
1	Marker to write on envelopes if necessary
TBD	*Administrator Observation Checklists* (2 for each assessor)
TBD	Stop-watches (1 for each team member and 1 extra)
TBD	EGRA *Pupil Stimuli Cards* (2 for each team member)
1	Notepad for Team Supervisor

Key tasks

The night before you go to a school…

1. Contact all EGRA administrators. Make sure each person knows when and how the team will depart for the school the following day, as well as whether the team will spend the night at the school site or another town.

2. Make sure that you have all necessary materials and that they are in good condition. Contact the Fieldwork Coordinator if you need additional assistance.

3. Contact the Head Teacher of each school to be visited the night before the visit, as a reminder of your arrival.

4. Fill in information on the cover sheet of each EGRA instrument, including demographic information and codes. Each assessor will complete the rest of the information prior to administering the EGRA test.

As soon as you arrive at the school…

1. Introduce yourself and the team of assessors to the Head Teacher.
   - Explain the general purpose of the visit and provide the person in charge with a copy of the Ministry of Education introductory letter (if necessary).
   - Remind the Head Teacher that neither pupils nor teachers will be identified by name in the data collection process.
   - Answer questions about the study posed by the Head Teacher. If you are unable to respond to a question, take note of it and seek the answer from your Fieldwork Coordinator.

2. Tell the Head Teacher that a certain number of pupils will be selected randomly.

3. Tell the Head Teacher that the data collection team will need the following:
   - A quiet but spacious area for the assessments, such as the school library or an empty classroom
   - Help managing pupils while they are waiting to take the EGRA test. Make sure you have the Head Teacher identify one person to help you during the day!

4. Remind the Head Teacher that in addition to pupil assessments, the study includes an interview questionnaire for each grade X teacher and the Head Teacher. You will conduct these interviews following the completion of the pupil assessments.

5. Thank the school Head Teacher for agreeing to participate in the early grade reading assessment!

Before you leave the school, be sure to do the following…

1. Take the completed test forms from the assessor and review them to verify the following:
    - ✓ Is the pupil consent box on the first page checked?
    - ✓ Is the identification information in the box on the first page completely filled out and legible?
    - ✓ On the response sheets, are errors and stop points clearly marked?
    - ✓ Is the number of seconds remaining indicated at the bottom of the page?
    - ✓ Is there an answer clearly marked for every question in the pupil context questionnaire?
    - ✓ Are any pages missing?

    If information is missing or not clear, talk to the assessor who conducted the test and ensure that all information is completed. INITIAL EACH EGRA INSTRUMENT, HEAD TEACHER QUESTIONNAIRE, AND TEACHER QUESTIONNAIRE.

2. Put all completed forms back in the envelope and ensure that it is properly labeled with the school's name.

3. Review the completed Teacher and Head Teacher Questionnaires. Verify the following:
    - ✓ Is the consent box on the first page checked?
    - ✓ Is the identification information on the first page completely filled out and legible?
    - ✓ Is there an answer clearly marked for every question in the survey?
    - ✓ Are any pages missing?

4. Before leaving the school, complete a *School Visit Summary Sheet.* Submit with the EGRA tests and the Teacher and Head Teacher Questionnaires. Ask the Head Teacher or other person in charge of the school to help you complete the information if necessary.

After the school visit…

1. At the end of each day of work in a school and during travel time to the next site, conduct an experience exchange with the assessors to determine the team's strengths and weaknesses to improve future efforts. Take notes on these meetings for the *Fieldwork Report***.**

2. In addition, meet individually with each assessor to review performance, using the Administrator Observation Checklist. In particular, discuss unchecked areas in which the assessor needs to improve.

3. At least once each week, you and your team should meet with your **Fieldwork Coordinator** to accomplish the following:
    - Collect all completed pupil response forms and staff questionnaires.
    - Count and review the material applied during the week, all of which must meet quality standards.
    - Review progress made on the routes assigned and, if necessary, restructure according to needs.
    - Review your *School Fieldwork Visit Summary Sheets* and *Administrator Observation Checklists* to detect problems and strengths identified, and for comparison with information from other teams.

- Verify that the transportation and materials will be available on time and at the location where work is scheduled for the following week.
- Verify that personnel are available and sufficient in number, and find replacements if necessary.

After EGRA data collection…

When all fieldwork is completed, you will be expected to prepare a *Fieldwork Report* (see Guidelines) and submit this report to your **Fieldwork Coordinator**. You should work on this report throughout data collection to ensure that you note all important information as the data collection proceeds.

1. Once field work is completed, you will be asked to return the following items to the Fieldwork Coordinator:
   - Any remaining pupil response forms
   - Head Teacher and Teacher Questionnaires
   - All fieldwork equipment and any remaining materials

   THANK YOU FOR YOUR CONTRIBUTION TO THIS IMPORTANT WORK!

Fieldwork Report

Each Team Supervisor is required to prepare a **Fieldwork Report** to be submitted to the **Fieldwork Coordinator** for the NEI project within one week of the completion of fieldwork. The Fieldwork Report will contain the following information:

1. Name of the supervisor and assessors on the team

2. Completed School Information Sheet with **list of all schools** visited

3. Brief paragraph describing the school visit (conditions of work and other relevant unusual or special circumstances, including any difficulties encountered)

4. Main strengths and weaknesses of the team and the Supervisor

5. Suggestions to improve fieldwork in future

6. Your signature and the date of preparation of the report
   a. All completed School Fieldwork Visit summary sheets
   b. All completed Enumerator Observation checklists

Also submit with the **Fieldwork Report** (or earlier if possible) any remaining sets of completed pupil response forms and staff questionnaires collected but not yet submitted, all fieldwork equipment, and any remaining spare materials.

EGRA Administration Steps

1. Introduce the team to the Head Teacher.

2. Ask the Head Teacher to identify someone who will help you manage pupils during testing.

3. Set up the testing space.

4. Select pupils (including extras)—be sure to select the appropriate number!

5. Administer EGRA tests.

6. Provide support to assessors as needed.

7. Administer Teacher and Head Teacher Questionnaires.

8. Verify that all information has been collected; initial all tests and questionnaires.

9. Put all desks back the way you found them.

10. Thank the Head Teacher.

School Fieldwork Visit Summary Sheet

Name of Team Supervisor:		**Name of School:**	
Date: (Day/Month/Year):		**Address of School:**	
District:		**School Telephone Number:**	
Region:		**Head Teacher's Name:**	

SUMMARY OF PUPIL & TEACHER INFORMATION COLLECTED

Grade X Classes (and section, if applicable)	No. of EGRA instruments collected	No. of completed Head Teacher questionnaires	No. of completed Teacher questionnaires
Section _____		N =	N =
Section _____			
Section _____			
Section _____			
Total:			

ASSESSMENT CONDITIONS

DIMENSION	Poor	Fair	Good	Excellent
Quality of acoustics for one-on-one assessment				
Distance of assessment area from visual distractions				
Appropriateness of seating for pupil and enumerator				

OBSERVATIONS *(Describe/explain any unusual or special circumstances at the school on the day of visit.)*

Signature of Supervisor: _____   Date: _____

Annex 13: EGRA Assessor Training—Agenda Examples

Example 1

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
EGRA OVERVIEW	**EGRA SUBTASK PRACTICE**	**EGRA SUBTASK PRACTICE/IRR 1**	**SCHOOL PRACTICE IRR 2**	**SCHOOL PRACTICE**	**IRR 3, ASSESSOR SELECTION, SUPERVISOR TRAINING**
8:30–9:30 Welcome, introductions **9:30–10:30** EGRA overview: Why Reading? Why Early? [Reading Specialist] **10:30–10:45** Break **10:45–1:00** Introduction to subtasks, section by section [Reading Specialist]	**8:30–9:00** Review **9:00–10:30** Subtask 2: practice **10:30–10:45** Break **10:45–1:00** Subtask 3: practice	**8:30–9:00** Review **9:00–10:30** Subtask 6: practice **10:30–10:45** Break **10:45–12:00** Subtask 7: practice **12:00–1:00** Practice in pairs	**8:00** Leave for schools **9:30–12:00** Administration of EGRA & Questionnaires **12:00–1:00** Debrief, discussion of lessons learned	**8:30** Leave for schools **9:30–12:00** Administration of EGRA & Questionnaires **12:00–1:00** Discussion of school visits; additional practice	**9:00–9:30** Discussion of front page and coding **9:30–10:00** IRR test 3 **10:00–10:30** Break **10:30–11:30** Team practice **10:30–12:30** Score EGRA subtasks and enter data; participants discuss major errors **12:30–1:00** Presentation of IRR results

LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00
2:00–2:30 Cover page and consent **2:30–3:30** Subtask 1 [Reading Specialist/Linguist] **3:30–3:45** Break **3:45–4:15** Marking, stopwatch and clipboard use **4:15–5:00** Subtask 1: practice	**2:00–3:30** Subtask 4: practice **3:30–3:45** Break **3:45–5:00** Subtask 5: Nonword decoding and practice	**2:00–3:00** Interrater reliability (IRR) test 1 **3:00–3:30** Practice Pupil Questionnaire **3:30–3:45** Break **3:45–4:30** Team scores and enters data; practice Pupil, Teacher, and Head Teacher Questionnaire **4:30–5:00** Sampling **5:00–5:30** Presentation of IRR results	**2:00–3:00** Additional practice **3:00–4:00** IRR test 2 **4:00–4:30** Break **4:30–5:00** Continued practice **4:00–4:45** Team scores data **5:00–5:30** Results of IRR test 2; review major errors		**2:00–3:00** Supervisor training— overview of responsibilities **3:00–3:45** Observation Checklist **3:45–4:00** Break **4:00–4:30** Coding and sampling **4:30–5:00** Discussion of next steps

Example 2
(This agenda assumes five days of training, with the pilot taking place after the training.)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
OVERVIEW OF EGRA	**EGRA AND LANGUAGE**	**ASSESSMENT TRAINING**	**PRACTICE IN SCHOOLS**	**WRAP-UP**
8:30–9:30 Welcome, introductions, and rationale **9:30–10:30** EGRA overview **10:30–10:45** Break **10:45–1:00** EGRA overview, introduction to subtasks	**8:30–10:30** Subtask practice **10:30–10:45** Break 10:45–1:00 **Interrater reliability test**	**8:30–10:30** Assessment practice **10:30–10:45** Break **10:45–1:00** Assessment practice	**7:30–1:00** Field testing of assessment in schools (language specific)	**8:30–10:30** Interrater reliability tests **10:30–10:45** Break **10:45–1:00** Discussion of school-level data collection issues (sampling, introductions, etc.)
LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00	LUNCH: 1:00–2:00
2:00–3:30 Introduction to subtasks **3:30–3:45** Break **3:45–5:30** Mock EGRA, subtask practice	**2:00–3:30** Guided practice **3:30–3:45** Break 3:45–5:30 **Independent practice**	**2:00–3:30** Introduction to language-of-instruction subtask **3:30–3:45** Break **3:45–5:30** Introduction to Teacher and Director Questionnaire, practice	2:00–3:30 **Discuss preliminary findings from field testing** **3:30–3:45** Break **3:45–5:30** Practice and preparation for reliability tests	**2:00–5:30** Team assignments for data collection and piloting, next steps for piloting

Annex 14: Scoring Presentation

General Instructions for EGRA Administration

Presentation guidance adapted and condensed from presentation prepared by:

Dr. Sandra Hollingsworth,

University of California, Berkeley

General Guidance for EGRA Administration

- **Consistency in administration** is key.

- Stick to the script and administration rules!

- Make sure to obtain **accurate** and **complete** data—missing data means wasted effort.

- Make sure to retain **complete records.**

Key Rules for Administrating EGRA

1. Hold your clipboard, with your stopwatch in your non-dominant hand.
2. Place your pen or pencil in your dominant hand.
3. Slant your clipboard so it points toward the student's forehead.

Key Rules for Administrating EGRA

3-second rule: If a child hesitates to answer for more than three seconds on a given item, put a slash mark through the item (letter or word) to mark it as incorrect. Point to the next item an ask the child to go on.

Early stop rule: If a child is unable to provide a correct answer on any item in the first row or section of a subtask, thank the child, mark the box at the bottom of the scoring page, discontinue the subtask, and move on to the next subtask.

Key Rules for Administrating EGRA

Stopwatches and brackets:

Start the stopwatch when the child first speaks, or –using the 3 second rule – when you have to provide the word.

When the child stops reading, first press the stopwatch, then put a bracket behind the last word/letter attempted, and finally enter the seconds remaining.

Key Rules for Scoring

- **Skipped letter/word rule:** If the child skips a letter or word, tell the child the letter or word. Then, put a slash through the letter/sound, point to the next item, and tell him or her to "go on."

- **Incorrect answers and omissions** – put a diagonal slash through he middle of incorrect letters and words

- **Skipped lines** – draw a line through any row of words or letters skipped

Key Rules for Scoring

- Self corrections: If the child self-corrects a mistake and you've already put a slash, circle the word/letter and count it as correct.

hat

Key Rules for Scoring

Bracketing: When the child stops reading (or you tell him/her to stop because 60 seconds is up), put a bracket behind the last word read.

hat   chop   his   lap

Key Rules for Questioning

- Repeating questions: If a child asks you to repeat a question or does not understand, you can repeat it only ONCE.

- Comprehension questions: Only ask questions that pertain to the lines of text that the student has read. Do NOT ask questions for text that the student has not read.

Review of Key Rules for Scoring

Incorrect answers and omissions – put a diagonal slash through he middle of incorrect letters and words.

Skipped lines – draw a line through any row of words or letters skipped.

Self corrections - circle the item already slashed through if student self-corrects within 3 seconds, and score as correct.

Bracketing: When the child stops reading (or you tell him/her to stop because 60 seconds is up), put a bracket behind the last word read.

Annex 15: Assessor Observation Checklist

Supervisor: _____ **Assessor: _____** **Date: _____**

Checklist Items	Observed?
GENERAL INSTRUCTIONS: DEVELOPING RAPPORT; GAINING CONSENT	✓
4. Assessor is relaxed and makes the child feel comfortable.	
5. Assessor reads aloud the consent text verbatim, obtains a verbal response, and checks the verbal consent box.** If child declines to participate, assessor thanks the child and tells him/her to return to class.	
6. Assessor completes data on first page, including the time test is started.	
SUBTASK 1: LETTER SOUND IDENTIFICATION (Timed)	
11. Assessor follows script of instructions to the child, without adding unnecessary words.**	
12. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed.** Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
13. Assessor holds response sheet on clipboard outside of child's visual range.	
14. Assessor marks letters read incorrectly with a slash through the middle of the word.**	
15. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
16. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
17. If child hesitates for 3 seconds, assessor provides the sound of the letter, points to the next letter and says, "Go on."**	
18. If child gets even 1 letter sound right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor then places a bracket behind the last word read and enters the seconds remaining.**	
19. Assessor marks a bracket at the point reached by child after 60 seconds have passed and enters the seconds remaining.**	
20. If child completes page before 60 seconds have passed, the assessor stops the stopwatch, places a bracket behind the last letter read, and notes seconds remaining at bottom of page.**	
SUBTASK 2: INITIAL SOUND IDENTIFICATION (PHONEMIC AWARENESS)	
7. Assessor follows script of instructions to the child, without adding unnecessary words.**	
8. Assessor takes the stimulus booklet/papers away from the child (this is an oral exercise).	
9. Assessor holds response sheet on clipboard outside of child's visual range.	
10. If child gets even 1 of the sounds right in the first 5 words, assessor allows the child to continue.**	
11. If the child does not respond after 3 seconds, assessor marks "No response" and says the next prompt.	
12. If child does not correctly answer the first 5 initial sounds, the assessor discontinues the subtest and checks the box indicating that the subtest was discontinued.	
SUBTASK 3: SYLLABLE NAMING (Timed)	
11. Assessor turns to correct page in the stimulus book and places it before the child.	
12. Assessor follows script of instructions to the child, without adding unnecessary words.**	
13. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the	

end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
14. Assessor holds response sheet on clipboard outside of child's visual range.	
15. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
16. If child could read no syllables in the first line, assessor brackets the last syllable in the line and checks the box indicating that the subtest was discontinued. Finally, assessor notes seconds remaining on the stopwatch in the box at the bottom.	
17. If child gets even 1 syllable right in the first line, assessor continues for the full 60 seconds. Assessor then places a bracket behind the last syllable read and enters the seconds remaining.	
18. If child hesitates for 3 seconds, assessor provides the syllable, points to the next syllable, and says, "Go on."**	
19. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
20. If child attempts all syllables before 60 seconds have passed, the assessor places a bracket behind the last word read and notes seconds remaining at bottom of page.	
SUBTASK 4: FAMILIAR WORD READING (Timed)	
11. Assessor turns to correct page in the stimulus book and places it before the child.	
12. Assessor follows script of instructions to the child, without adding unnecessary words.**	
13. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed.	
14. Assessor holds response sheet on clipboard outside of child's visual range.	
15. Assessor marks words read incorrectly with a slash through the middle of the word.	
16. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
17. If child could read no words in the first line, assessor brackets the last word in the line and checks the box to discontinue section. Assessor writes the seconds remaining in the box at the end of the page.**	
18. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	
19. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
20. If child completes page before 60 seconds have passed, the assessor places a bracket behind the last word read and notes seconds remaining at bottom of page.	
SUBTASK 5: NONWORD READING (Timed)	
11. Assessor turns to correct page in the stimulus book and places it before the child.	
12. Assessor follows script of instructions to the child, without adding unnecessary words.**	
13. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
14. Assessor holds response sheet on clipboard outside of child's visual range.	
15. Assessor marks words read incorrectly with a slash through the middle of the word.	
16. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
17. If child could read no words in the first line, assessor brackets the last word in the line and checks the box to discontinue section. Assessor writes the seconds remaining in the box at the end of the page.**	
18. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	

19. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
20. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor notes seconds remaining in the box at the end of the page.**	
SUBTASKS 6A & 6B: PARAGRAPH READING (Timed) AND COMPREHENSION	
11. Assessor turns to correct page in the stimulus book and places it before the child.	
12. Assessor follows script of instructions to the child, without adding unnecessary words.**	
13. Assessor uses stopwatch correctly, starting when the child first speaks, stopping at the end of the list or after 60 seconds have passed. Assessor notes seconds remaining on the stopwatch in the box at the bottom.	
14. Assessor holds response sheet on clipboard outside of child's visual range.	
15. Assessor marks errors promptly and legibly, draws a line through any skipped rows.**	
16. If child hesitates for 3 seconds, assessor provides the word, points to the next word, and says, "Go on."	
17. If child could read no words in the first line, assessor brackets the last word in the line and checks the box indicating that the subtest was discontinued. Assessor enters seconds remaining in the box below.	
18. If child gets even 1 word right in the first line, assessor allows the child to continue for the full 60 seconds. Assessor marks a bracket at the point reached by child when 60 seconds are reached and enters the seconds remaining.	
19. Assessor takes text passage away from the child before beginning to ask questions.	
20. Assessor only asks questions for which the pupil has read the entire line of text.**	
SUBTASK 7: LISTENING COMPREHENSION	
5. Assessor takes the stimulus booklet/papers away from the child (this is an oral exercise).	
6. Assessor reads story to child with expression.	
7. Assessor asks comprehension questions, marking them either correct, incorrect, or no response.	
8. If the child hesitates for more than 3 seconds after the question is asked, assessor continues to the next question	

**MAJOR ERRORS
<u>**Notes:**</u>

Annex 16: Overview of Interrater Reliability (IRR) Test Administration and Scoring

Purpose

While the EGRA assessment of young children measures basic skills, the task of assessing them is far from simple. The combination of holding a clipboard, marking correct and incorrect answers, managing the stopwatch, and interacting positively with the children is not easy. Experience has revealed that a significant percentage of those interested in EGRA implementation are not sufficiently skilled for the task. Indeed, anywhere from 10% to 50% of a particular group of EGRA trainees may not exhibit the requisite skills to be selected as an assessor. By administering a test of interrater reliability (IRR), we are able to discriminate between those who exhibit the necessary skills to collect accurate data and those who do not.

The purpose of IRR tests are therefore twofold: (1) to improve assessors' ability to accurately record information during the course of the training and (2) to identify individuals who, by the end of the training, most accurately record data and therefore should be chosen to be assessors for the EGRA data collection.

First, administering IRR tests helps to improve the skills, precision, and reliability of the assessors over the course of training. A systematic IRR test does that in several ways. First, it shows that the implementer is taking the work seriously. Second, it shows that the selection of assessors is based on measurable (and fair) standards and data. Third, it challenges participants to take their training very seriously. At the beginning of the EGRA training, the facilitator or team leader should inform participants that each person will be evaluated more than once, so that they can see their involvement in the training as a means to improve their skills.

You can use the IRR scores in two ways. First, an individual assessor's score is averaged across EGRA subtasks to assess his or her reliability to accurately score the entire test (i.e., scores of 94, 93, 90, and 95 on four subtasks translate into an overall IRR score for the test of 93). You can rank the IRR scores of an entire group of trainees to identify trainees in need of additional practice and to identify skilled assessors. Second, you can review the groups' score for each subtask to determine which subtask requires more practice (i.e., if you calculate that the average score for all participants is lowest for the nonword reading section, you can provide additional training for that subtask).

You can use an Excel spreadsheet to record IRR scores during the training workshop. The scores can be averaged (i.e., for the three IRR tests given), and assessors' average IRR scores can be compared. In addition to taking into account the IRR score, an EGRA team may also want to note any significant errors that assessors make which may not be captured using a standard IRR score. For example, if the assessor forgets to include the time remaining or mark the consent box, a penalty could be recorded and taken into consideration for the final selection. You should administer IRR tests at least two to three times during the training, with the average score used to select assessors. (Note: In some cases, you may want to include a practice IRR to ensure that

trainees are familiar with the process. In other situations, trainers prefer to use only the final IRR score to select assessors, or to use an average of two to three scores.)

Steps for administering an IRR test

There are several ways of conducting IRR assessments. Based on experience, the preferred option for assessing trainees' ability to accurately score and mark is to conduct a demonstration, in which trainers (or an experienced EGRA assessor) play the roles of assessor and student. The steps below describe the process for conducting this IRR test administration.

1. Prior to the administration of each IRR assessment, prepare an EGRA test that will serve as the "Gold Standard." This test should look as if it has been scored by an assessor. For each subtask, mark items (i.e., letters or words) as either correct or incorrect. This EGRA will be the Gold Standard against which each assessor's performance will be compared.

   Tip: Make sure that a variety of typical student types and errors are represented in the Gold Standard test. For example, include autostop (all letters or words on the first row incorrect); skipped letters, words, or lines; and self-corrections. Also, make sure to mark the Gold Standard in pencil so that it can be edited as necessary AFTER administration, in case the "student" does not follow the script precisely.

2. Select one trainer to play the role of an EGRA assessor and another person to play the role of a student. The "assessor" will administer EGRA to the person playing the role of a student, whose answers will be based on the Gold Standard EGRA, which he or she will read as a script. The "student" MUST follow the Gold Standard precisely. The person playing the role of the student should practice the Gold Standard so that he or she knows which letters, words, etc. to say incorrectly and which to say correctly. Then, during the administration of the IRR test, the person playing the role of the student will provide responses according to the correct and incorrect answers of the Gold Standard.

   Tip: The people who play the role of the student, following the Gold Standard EGRA, should be native speakers of the language or from the country in which you are training, to ensure that the accent and pronunciation used are what the assessors will encounter in the schools. Additionally, prior to administering the test, the "student" should be instructed to read the different subtasks slowly or quickly, to give the trainees experience marking tests by different types of readers.

3. Prior to the administration of each IRR test, remind participants of the purpose of the test. Give each participant (assessor-trainee) a new (or unmarked) EGRA instrument. Remind participants they will need to pay close attention to the people who are following the Gold Standard test responses. They should mark the test based on the responses they hear from the "student."

   Tip: Remind participants that they should not look at other participants' sheets and that they will actually do better if they concentrate on their own marking.

4. The trainers playing the role of an EGRA assessor should now administer the test to the trainer playing the role of a student. A third person (either another trainer or skilled EGRA assessor) should mark a blank EGRA test to verify that the "student" is followed the "script" of the Gold Standard test.

5. Immediately after the test, collect the trainees' EGRA tests. Do not give them time to review their scoring or to consult other participants.

6. The EGRA team should then review the Gold Standard to see if the trainers who gave responses in the student role made any changes from the pre-marked test. If the responses provided by the "student" differed slightly from what was marked on the Gold Standard test prior to administration, the Gold Standard test should be adjusted to reflect the responses actually provided. The team should also verify the acceptable number of seconds remaining that should be recorded for each subtask (the range should usually be plus/minus a second). Once the Gold Standard has been verified, make enough copies for the team that will be scoring the tests.

Steps for scoring IRR tests

To score the IRR test, each participant's test marks should be compared to the Gold Standard. Each subtask (i.e., familiar word reading) will be scored according to the number of "agreements" and "disagreements" between what the participant marked and the Gold Standard. An "agreement" is when the trainee marked the item (i.e., a letter or a word) the same as it is marked in the Gold Standard. "Disagreements" are when the trainee marked a given item differently than the Gold Standard. For example, if in the Gold Standard test the letter "r" is marked incorrect but the trainee marked it correct, that is a disagreement and the item is scored 0. Conversely, if the trainee marked the letter "r" incorrect, then s/he would receive 1 point.

All items in the test (i.e., every letter and every word) within a subtask should be compared to the Gold Standard, not only the items administered prior to stopping the stopwatch or the application of the auto-stop. Therefore, for a task with 100 items, the maximum score will always be 100 if the assessor sheet is identical to (in agreement with) the Gold Standard. For example, if the Gold Standard indicates that the "student" stopped reading at item or word 25, but the assessor continued marking items 26, 27, and 28, these items should be counted as disagreements because the Gold Standard and the assessor's test differ. Likewise, if the "student" stopped reading at word 28, but the assessor put the bracket at word 25, words 26, 27, and 28 would be marked as disagreements. Note that you should not count in the IRR calculation the time remaining on the stopwatch or the auto-stop box.

If the Gold Standard and the trainee's test differ in the marking of 1 item, then the score is 99/100. If none of the items in the enumerator sheet are marked similarly to the golden standard, the score is 0/100.

The total IRR score should be converted to a percentage (%) score for reporting purposes. Participants' scores should be entered into an Excel spreadsheet so that average scores can easily

be calculated and participants ranked from highest to lowest IRR score. Then return the EGRA tests to participants with their scores so they have an idea of their progress.

After each IRR assessment, the EGRA team should identify common mistakes and subtasks in need of additional training. Once tests are returned to trainees, the workshop facilitator should provide a summary of the IRR scores (i.e., average and high scores) and identify areas in need of improvement.

<u>IRR EXAMPLE 1:</u>

In the example below, the Trainee scored 91 out of 100, meaning there were 9 disagreements between the IRR Gold Standard test used for responses and what the trainee marked on the EGRA test. The assessor did not mark two additional items (the letters 'y and k) that were actual responses during the IRR test, so these are counted as disagreements. With nine disagreements, the IRR score for this sub-test is therefore 91/100, or 91%. This score indicates the trainee is doing fairly well, but should be reminded to pay closer attention to when the student stops reading, setting the timer at the beginning, and/or when the timer indicates the test should be stopped.

Gold Standard—100 possible

1	2	3	4	5	6	7	8	9	10	
a	r	A̸	A̸	n	Z	K	e̸	K	W̸	(10)
y̸	c	(n)	I	W	a̸	O	U̸	X̸	S	(20)
M	x̸	a	x̸	t	X⃝	G	A	y̸	k⌐	(30)
a	S	T	K	o	I	h	N	U	F	(40)
a	A	i	a	C	A	K	T	s	u	(50)
y	A	t	D	N	ɓ	k	L	e	d	(60)
i	M	y	a	m	i	r	A	R	i	(70)
N	I	R	b	A	d	N	s	A	n	(80)
A	a	u	E	m	E	D	j	w	s	(90)
i	g	U	H	N	ƙ	A	n	B	l	(100)

Trainee's Test—9 disagreements; score: 91/100 = 91%
Disagreements are identified by arrows.

1	2	3	4	5	6	7	8	9	10	
a	A̸	A̸	a̸	n	Z	K	e̸	K	W̸	(10)
u̸	c	n̸	I	W	a̸	Ø	U̸	Y	S̸	(20)
M	x̸	A̸	x̸	t	X⃝	G	A⌐	'y	k	(30)
a	S	T	K	o	I	h	N	U	F	(40)
a	A	i	a	C	A	K	T	s	u	(50)
y	A	t	D	N	ɓ	k	L	e	d	(60)
i	M	y	a	m	i	r	A	R	i	(70)
N	I	R	b	A	d	N	s	A	n	(80)
A	a	u	E	m	E	D	j	w	s	(90)
i	g	U	H	N	ƙ	A	n	B	l	(100)

IRR EXAMPLE 2:

In the example below, there were 18 "disagreements" between the Gold Standard and the assessor trainee's test, meaning the person incorrectly scored 18 items. Note that the trainee placed the bracket in the incorrect location, meaning that item 50, the word "ni," is a disagreement. With 18 disagreements, the IRR score for this test is 32/50, or 64%. An IRR score

this low indicates the trainee will need special attention and support to increase his or her score to an acceptable rate of at least 90%.

Gold Standard—50 possible

1	2	3	4	5	
tana	in	nan	tafiya	sai	(5)
ina	kai	daya	yi	zo	(10)
su	malam	za	ku	ce	(15)
makaranta	audu	suna	ta	iya	(20)
shi	gida	ba	bar	ka	(25)
wata	tare	ya	wasa	to	(30)
ruwa	yara	tafi	ana	mai	(35)
lafiya	ki	da	wani	daga	(40)
yana	ga	rana	aka	suka	(45)
cikin	ke	ina	ne	ni	(50)

Trainee's Test—18 disagreements; score: 32/50 = 64%
Disagreements are identified by arrows.

1	2	3	4	5	
tana	in	nan	tafiya	sai	(5)
ina	kai	daya	yi	zo	(10)
su	malam	za	ku	ce	(15)
makaranta	audu	suna	ta	iya	(20)
shi	gida	ba	bar	ka	(25)
wata	tare	ya	wasa	to	(30)
ruwa	yara	tafi	ana	mai	(35)
lafiya	ki	da	wani	daga	(40)
yana	ga	rana	aka	suka	(45)
cikin	ke	ina	ne	ni	(50)

Annex 17: Sample Data Collection Itinerary and School Schedule

REGION 1

NAME	CELL PHONE
TEAM 1	
Supervisor	
Assessor	
Assessor	

TEAM 2	
Supervisor	
Assessor	
Assessor	

TEAM 3	
Supervisor	
Assessor	
Assessor	

TEAM 4	
Supervisor	
Assessor	
Assessor	

TEAM 5	
Supervisor	
Assessor	
Assessor	

	Date	Day	Morning	Afternoon/Night
	25-Feb	Fri	Meet with Supervisors	
	26-Feb	Sat	Meet with Assessors to Review Plan	
Week 1	27-Feb	Sun		
	28-Feb	Mon	Travel to (school name)	(Return to/travel to/overnight in…)
	1-Mar	Tues		
	2-Mar	Wed		
	3-Mar	Thurs		
	4-Mar	Fri		
	5-Mar	Sat		
Week 2	6-Mar	Sun		
	7-Mar	Mon		
	8-Mar	Tues		
	9-Mar	Wed		
	10-Mar	Thurs		
	11-Mar	Fri		
	12-Mar	Sat		
	13-Mar	Sun		

District	School Name	Team Number	Mode of transport	Transport cost	School Contact Information
District 1	Primary school 1				
	Primary school 2				
	Primary school 3				
	Primary school 4				
	Primary school 5				
	Primary school 6				
District 2	Primary school 1				
	Primary school 2				
	Primary school 3				
	Primary school 4				
	Primary school 5				
	Primary school 6				
District 3	Primary school 1				
	Primary school 2				
	Primary school 3				
	Primary school 4				
	Primary school 5				
	Primary school 6				
District 4	Primary school 1				
	Primary school 2				
	Primary school 3				
	Primary school 4				
	Primary school 5				
	Primary school 6				

Annex 18: Sample School Codes

LIST OF SCHOOLS - SOKOTO

State	State Code	LGA	LGA code	LGA unique code	School Name	School code	Unique school code
Sokoto	2	Bodinga	01	201		01	20101
Sokoto	2	Bodinga	01	201		02	20102
Sokoto	2	Bodinga	01	201		03	20103
Sokoto	2	Bodinga	01	201		04	20104
Sokoto	2	Bodinga	01	201		05	20105
Sokoto	2	Bodinga	01	201		06	20106
Sokoto	2	Dange Shuni	02	202		07	20207
Sokoto	2	Dange Shuni	02	202		08	20208
Sokoto	2	Dange Shuni	02	202		09	20209
Sokoto	2	Dange Shuni	02	202		10	20210
Sokoto	2	Dange Shuni	02	202		11	20211
Sokoto	2	Dange Shuni	02	202		12	20212
Sokoto	2	Gada	03	203		13	20313
Sokoto	2	Gada	03	203		14	20314
Sokoto	2	Gada	03	203		15	20315
Sokoto	2	Gada	03	203		16	20316
Sokoto	2	Gada	03	203		17	20317
Sokoto	2	Gada	03	203		18	20318
Sokoto	2	Illela	04	203		19	20319
Sokoto	2	Illela	04	203		20	20320
Sokoto	2	Illela	04	203		21	20321
Sokoto	2	Illela	04	203		22	20322
Sokoto	2	Illela	04	203		23	20323
Sokoto	2	Illela	04	203		24	20324
Sokoto	2	Isa	05	204		25	20425
Sokoto	2	Isa	05	204		26	20426
Sokoto	2	Isa	05	204		27	20427
Sokoto	2	Isa	05	204		28	20428
Sokoto	2	Isa	05	204		29	20429
Sokoto	2	Isa	05	204		30	20430
Sokoto	2	Kebbe	06	205		31	20531
Sokoto	2	Kebbe	06	205		32	20532
Sokoto	2	Kebbe	06	205		33	20533
Sokoto	2	Kebbe	06	205		34	20534
Sokoto	2	Kebbe	06	205		35	20535
Sokoto	2	Kebbe	06	205		36	20536
Sokoto	2	Kware	07	206		37	20637

State	State Code	LGA	LGA code	LGA unique code	School Name	School code	Unique school code
Sokoto	2	Kware	07	206		38	20638
Sokoto	2	Kware	07	206		39	20639
Sokoto	2	Kware	07	206		40	20640
Sokoto	2	Kware	07	206		41	20641
Sokoto	2	Kware	07	206		42	20642
Sokoto	2	Sabon Birni	08	207		43	20743
Sokoto	2	Sabon Birni	08	207		44	20744
Sokoto	2	Sabon Birni	08	207		45	20745
Sokoto	2	Sabon Birni	08	207		46	20746
Sokoto	2	Sabon Birni	08	207		47	20747
Sokoto	2	Sabon Birni	08	207		48	20748
Sokoto	2	Shagari	09	208		49	20849
Sokoto	2	Shagari	09	208		50	20850
Sokoto	2	Shagari	09	208		51	20851
Sokoto	2	Shagari	09	208		52	20852
Sokoto	2	Shagari	09	208		53	20853
Sokoto	2	Shagari	09	208		54	20854
Sokoto	2	Silame	10	209		55	20955
Sokoto	2	Silame	10	209		56	20956
Sokoto	2	Silame	10	209		57	20957
Sokoto	2	Silame	10	209		58	20958
Sokoto	2	Silame	10	209		59	20959
Sokoto	2	Silame	10	209		60	20960
Sokoto	2	Sokoto South	11	210		61	21061
Sokoto	2	Sokoto South	11	210		62	21062
Sokoto	2	Sokoto South	11	210		63	21063
Sokoto	2	Sokoto South	11	210		64	21064
Sokoto	2	Sokoto South	11	210		65	21065
Sokoto	2	Sokoto South	11	210		66	21066
Sokoto	2	Tambuwal	12	211		67	21167
Sokoto	2	Tambuwal	12	211		68	21168
Sokoto	2	Tambuwal	12	211		69	21169
Sokoto	2	Tambuwal	12	211		70	21170
Sokoto	2	Tambuwal	12	211		71	21171
Sokoto	2	Tambuwal	12	211		72	21172
Sokoto	2	Wamakko	13	213		73	21373
Sokoto	2	Wamakko	13	213		74	21374
Sokoto	2	Wamakko	13	213		75	21375
Sokoto	2	Wamakko	13	213		76	21376
Sokoto	2	Wamakko	13	213		77	21377
Sokoto	2	Wamakko	13	213		78	21378

Annex 19: Sample EGRA Findings Workshop

TIME	ACTIVITY	PRESENTER	SESSION CHAIR
	DAY 1		
8.15 am - 8.30 am	Registration of participants/ Introductions		
8.30 am - 9.00 am	Keynote address	Permanent Secretary, MOE	
9.00 am - 9.25am	Relevance of National Assessment for Education Quality	Secretary /Chief Executive	
9.25am - 10.00 am	Objectives of EGRA study and the link to national assessment	Director, Policy and Planning,	
10.00 am - 10.30 am	Importance of quality education		
10.30 am - 10.30 am	TEA BREAK		
11am - 11.30 am	Study Methodology		
11.30 am - 12.00 pm	Findings of the Study		
12.00 pm - 1.00 pm	Implications for policy, group discussion		
1:00 pm - 2.00 pm	LUNCH BREAK		
2.00 pm - 2.45 pm	Language of Instruction findings presentation		
2.45 pm - 3.30 pm	Policy discussions on Language of Instruction policy	Plenary	
3.30 pm - 4.00 pm	Group discussions on Language of Instruction policy		
4.00 pm - 4.30 pm	TEA BREAK		
4.30 pm - 5.30 pm	Report back from groups		
5.30 pm	Adjournment		

TIME	ACTIVITY	PRESENTER	SESSION CHAIR
DAY 2			
8.30 am - 9.00 am	Review of findings and discussions from Day 1		
9.00 am - 9.30 am	Presentation on benchmarking		
9:30 am - 10:00 am	Presentation of data from EGRA to discuss benchmarks		
10.00 am - 10.30 am	TEA BREAK		
10.30 am - 11.00 am	Language Group Discussions on Benchmarks		
11.00 am - 12.00 pm	**Plenary - discussions on benchmarking**		
12.00 pm - 1.00 pm	Discussions on implications on curriculum implementation and development		
1.00 pm - 2.00 pm	LUNCH BREAK		
2.00 pm - 3.00 pm	Findings from local NGO literacy study and implications for dissemination		
3.00 pm - 4.00 pm	Plenary session- Discussion of implication of findings		
4.00 pm – 4.30 pm	Remarks	Education Secretary	
4.30 pm - 4.30 pm	TEA BREAK, Adjournment		

TIME	ACTIVITY	PRESENTER	SESSION CHAIR
	DAY 3		
8.30 am – 9.00 am	Review of findings and decisions from Day 2		
9.00 am – 9.30 am	Local NGO and literacy dissemination strategies		
9.30 am – 10.00 am	Plenary discussion of local NGO and EGRA findings and implications		
10.00 am - 10.30 am	TEA BREAK		
10:30 am – 11:00 am	Plenary session- Discussion of dissemination strategies		
11.00 am – 12:00 pm	Groups - development of action plans using dissemination matrix		
12.00 pm – 1.00 pm	Plenary - Discussion of local implications of findings and development of reading workshops in provinces		
1.00 pm - 2.00 pm	LUNCH BREAK		
2.00 pm - 3:00 pm	Continued training on local dissemination		
3.00 pm - 4.00 pm	Discussion of media relationships and dissemination matrix – group work		
4.00 pm - 4.30 pm	TEA BREAK- DEPARTURE		

# *Annex 20: Sample EGRA Brief*

**Kenya Early Grade Reading Assessment
Policy Brief for Teachers and Head Teachers – by RTI International**

The Early Grade Reading Assessment (EGRA) was recently conducted in Central and Nyanza provinces with the Ministry of Education and RTI International. A total of 2000 Standard 3 students were assessed using EGRA which collects data on various skills students need in order to be successful readers. Kenya's language of instruction policy was taken into account when designing the study. Students were tested in English and Kiswahili and in rural areas in a mother tongue (Dholuo or Gikuyu) in Luo-Nyanza and Central, respectively.

Results of the study show that students are struggling to learn to read and understand text in any language in Class 3. Their scores on tasks such as letter sound knowledge, syllable reading, word reading and invented word reading were low. Students typically read around 30 words correct per minute in English, and 20 words per minute in Kiswahili, Dholuo and Gikuyu. A significant percentage of children could not read one word at all, as the figure to the right shows. Comprehension was a bigger concern, since the majority of children had comprehension scores less than 10% correct. Comprehension scores were much higher for mother tongue than in English even

though students read more words in English, which shows that mother tongue instruction helps children understand what they read more than English instruction does.

When classrooms were observed to find out how the language of instruction policy was being implemented it was found that instruction was seldom in mother tongue. The predominant language was English, even in classrooms and subjects that were supposed to teach in mother tongue or Kiswahili. This is different from the language that Ugandan teachers use, which is primarily mother tongue. The results show that the use of more English results in lower comprehension scores than expected given children's ability to decode text. In other words, teaching in English is not resulting in the levels of comprehension that would result if the language of instruction policy was followed. Head teachers and teachers can help by encouraging the use of mother tongue and explaining to parents
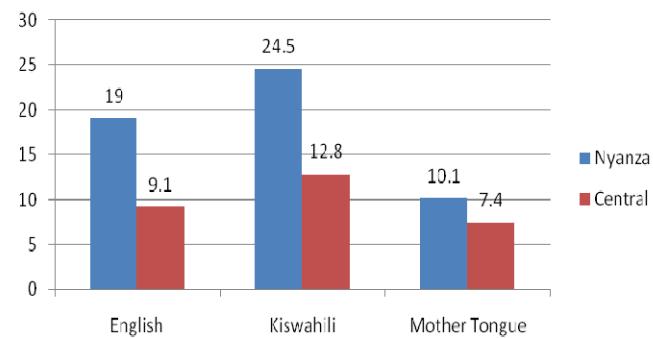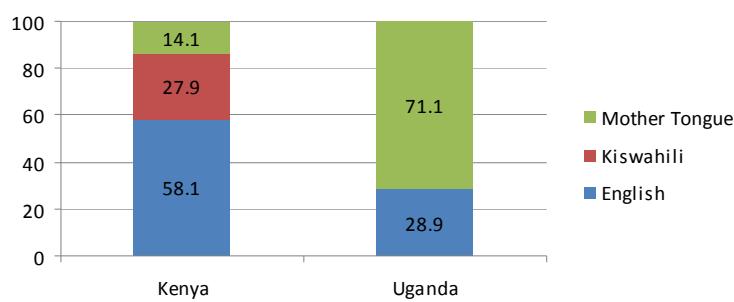
and the community how mother tongue can help children understand what they read.

> **Improving Reading Instruction in Kenya**
> **Recommendations for Head Teachers and Teachers**

The EGRA study can be used as a tool for understanding how young Kenyan readers are developing. These recommendations would support early reading of the children in your classroom or school.

Teach Reading: Students must be able to read in order to learn math, science, history or any other subject. Head Teachers should assure that their teachers set aside a significant amount of time each day for the teaching of reading. Teachers can work with more knowledgeable and experienced teachers to share ways to help teach the skills of reading such as letter knowledge, syllable reading, word reading and comprehension strategies. Note that having a language class is NOT the same as teaching reading. Teaching reading requires specific emphasis on the letters and sounds that build up words.

Start Early: Teachers' views of when students should be capable of reading greatly affect how students perform. Research shows that students can learn to read and comprehend by the end of two years of school or sooner. The sooner students learn to read the sooner they can read in order to learn, as they must starting in Class 3. Students who do this at a young age (6 or 7) have been shown to be much more successful on examinations like KCPE than students who do not learn until later.

Letter Sounds and Syllables: Scores for letter sounds and syllable reading were quite low. Many students do not know the sounds of letters and will not able to read new words. Explicitly teaching students letter sounds and syllables is key to their ability to read. When children could quickly and accurately determine the sounds of letters and syllables, they could also read new words and understand what they read. Teachers can help by practicing these skills with children until they are automatic.

Decoding or Word Reading: According to the results, students in Kenya are having trouble decoding words they had not seen before. Students need strategies in order to read new words, particularly the skills of how to break a word apart into syllables and letter sound. Once students can do this quickly and accurately they will be able to concentrate on understanding rather than the sounds themselves.

Teach Comprehension: Scores for comprehension were very low. Having students learn to read words more quickly and accurately is only part of reading. Students also need strategies for understanding what they read. They need to know how to use the vocabulary they already have, to ask themselves questions, compare and contrast ideas, and grasp the main ideas of a text. Teachers can tell stories or read books or a newspaper to students and use these strategies to discuss the text.

Language of Instruction: Even though students read fewer words in their mother tongue, they understood the stories better. This supports the idea that students can learn to read better in mother tongue. If teachers teach students to read in mother tongue and teach English and Kiswahili as a foreign language, students could develop strong reading skills more quickly. The support of teachers and head teachers is critical to ensuring that this happens in classrooms.

It is Possible: Some teachers taught children to read very quickly and quite well. They used the mother tongue, focused on letter sounds and syllables, had high expectations, used extra reading materials and received support from the head teacher.