EdData II

Student Performance on the Early Grade Reading Assessment (EGRA) in Yemen

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Student Performance on the Early Grade Reading Assessment (EGRA) in Yemen

EdData II
Task Order No. 7

Prepared for
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and
Sandra Bertoli, Contracting Officer’s Technical Representative (COTR)
Office of Education
Bureau for Economic Growth, Agriculture and Trade (EGAT/ED), USAID

Prepared by
Penelope Collins and Souhila Messaoud-Galusi
RTI International
3040 Cornwallis Road
Post Office Box 12194
Research Triangle Park, NC 27709-2194

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Abbreviations

BEDS Basic Education Development Strategy
COTR Contracting Officer’s Technical Representative
EFA Education for All
EGRA Early Grade Reading Assessment
FTI Fast Track Initiative
IDA International Development Association (World Bank)
IRPR Integrated Reading Performance Record
MDG Millennium Development Goal
MOE Ministry of Education
PTA parent-teacher association
RTI RTI International (trade name of Research Triangle Institute)
SSME Snapshot of School Management Effectiveness
TIMSS Trends in Mathematics and Science Study
UNDP United Nations Development Programme
USAID United States Agency for International Development
NAEP National Assessment of Educational Progress (United States)
NCES U.S. National Center for Education Statistics
Executive Summary

Policy Background
In 2003 Yemen’s Ministry of Education (MOE) drafted the National Basic Education Development Strategy (BEDS). The goals of the strategy include decentralizing the education system and improving access to basic education, with particular focus on closing the gaps between urban and rural school quality, as well as between boys and girls who attend school.\(^1\) Results have been positive: In 1999/2001, the gross enrollment rate for girls in primary school was only 51%; by 2007/2008 it had increased to 76%.\(^2\) As of 2008, the ratio of girls to boys enrolled in primary school was 80, and the primary school completion rate was 72% for boys and 49% for girls.\(^3\) Illiteracy rates in Yemen have been startlingly high in the past, but have improved significantly in recent years. Although the adult literacy rate is 80% for males and 45% for females,\(^4\) among youth ages 15–24 the rates are 96% for males and 72% for females.\(^5\) A clearer understanding of how students are learning basic reading skills in the early grades is an essential first step in improving student performance.

Purpose and Design of the Assessment
Assessments of student learning in the primary grades, such as the Early Grade Reading Assessment (EGRA), offer an opportunity to determine whether students are developing the fundamental skills upon which all other literacy skills build, and, if not, where efforts might be best directed.

A closer evaluation of students’ mastery of foundational reading skills would help reveal to Yemen’s MOE why learning outcomes have not improved as much as would be desired. To that end, USAID and the Yemen MOE tasked RTI International with administering EGRA to a stratified random sample of 735 students in grades 2 and 3. Students were selected from 40 schools across the three governorates of Amran, Lahj, and Sana’a.

How Well Are Students Learning to Read?
The EGRA was administered orally in Arabic and included nine subtasks: five that were timed to assess automaticity in the skill area (letter name knowledge, letter

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sound knowledge, familiar word reading fluency, invented word decoding, oral reading fluency) and four that were not (initial sound identification, reading comprehension, listening comprehension, and dictation). In addition to the subtasks, data collectors interviewed each student to gather information about home and school contexts that might help to understand students’ reading performance.

*Figure ES1* reveals that early reading skills were low across all the timed EGRA measures. Students in grade 2 could identify almost 17 letters by name in a minute, and they could produce the sounds of about 5 letters in that same time. Their peers in grade 3 could correctly name 22 letters and produce the sounds of about 6 letters per minute. One third of students (33%) were unable to correctly produce the sound of any letters.

Students’ limited mastery of the letters and the sounds associated with them, coupled with low scores in identifying the initial sounds of words (on average, 1 of 10), contributed to very low scores in invented word decoding and familiar word reading. Over half the students (53%) could not decode a single invented word. Students read lists of familiar words at a rate of 12.3 correct words per minute at the end of grade 3. Because students had not acquired the basic building blocks for reading, their oral reading fluency scores were low. Students in grade 2 read on average 5.8 correct words per minute and 42% were unable to read a single word. Grade 3 students read on average 12 correct words per minute and 27% were unable to read a single word. To give some perspective, the average reading fluency score was 57.3 correct words per minute for the students who were able to correctly answer 5 of the 6 reading comprehension questions.

**Figure ES1: Correct responses per minute on the five timed EGRA subtasks**

<table>
<thead>
<tr>
<th>Subtask</th>
<th>Grade 2</th>
<th>Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter name knowledge</td>
<td>16.8</td>
<td>4.7</td>
</tr>
<tr>
<td>Letter sound knowledge</td>
<td>6.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Familiar word reading</td>
<td>12.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Invented word decoding</td>
<td>12.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Oral reading fluency</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Separate scales are used for the timed and untimed subtasks. Graphs of student performance on the timed tasks use items per minute as the unit of measurement.
Not unexpectedly, few students could read with sufficient fluency to enable them to comprehend the text. Figure ES2, which displays results for the four untimed subtasks, shows that reading comprehension scores were very low, with 0.2 total correct answers out of 6 in grade 2 and 0.6 out of 6 in grade 3.

Listening comprehension scores were somewhat higher, although still quite low, with an average of 0.9 total correct answers out of 6 in grade 2, and 1.5 out of 6 in grade 3. This indicates not only that students are having difficulty with their decoding skills but also that their comprehension skills are weak. Dictation scores were similarly low with regard to students’ ability to correctly spell the three words spoken to them. Students had some success spelling some of the individual letters contained in the dictated words, with 7 to 10 letters spelled correctly. However, average scores across both grades indicated that students were unable to correctly spell even one word completely.

Figure ES2: Total correct responses on the four untimed EGRA subtasks

These findings suggest that Yemeni children need greater instructional support not just in their word recognition and spelling skills, but also in building robust language comprehension in literary Arabic.

What Contributes to Student Reading Achievement?

As part of the EGRA application, students were interviewed to collect information about student demographics, and other home and family factors that might influence reading achievement. These responses were then compared with students’ oral reading fluency scores through a series of statistical regression models to determine which student, home, or school factors were predictive of reading performance. The analysis showed three statistically significant factors contributing to children’s reading performance in school: attendance, having opportunities to practice reading, and receiving corrective feedback from teachers.
**Attendance**

Students who reported being absent the previous week showed weaker performance on most of the subtasks of the EGRA. Students who had missed at least one day of school the previous week identified fewer correct letter sounds, read fewer words in lists and in the passage, and were less accurate in spelling the three dictated words. Children who did not miss school were more successful in answering the reading comprehension questions.

Arriving at school on time is also important, as student tardiness limits opportunities to learn and practice the literacy skills taught in school. Students who reported that they had been late the previous week showed even weaker performance on most of the subtasks of the EGRA than those who had been absent (Figure ES3). As with attendance, students who had arrived on time every day were more successful in answering the reading comprehension questions.

**Figure ES3: Effects of arriving on time to school vs. arriving late**

<table>
<thead>
<tr>
<th></th>
<th>no late arrivals</th>
<th>late at least one day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items per minute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter Knowledge</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Letter Sound Identification</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Familiar Word Reading</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Invented Word Decoding</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Oral Reading Fluency</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total Items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Sound Identification</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Dictation (letters correct)</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

**Opportunities for Practice**

The findings in Yemen illustrated that giving students opportunities to practice is critical for building their beginning literacy skills. One important way of doing so is by providing children with the opportunity to read at school. Children who reported

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6 There was a small, but statistically significant difference between the scores of students who were not late and those who had arrived late at least one day the week before.
that they had time to read at school obtained significantly higher scores in reading familiar words, whether they were presented in a list or in a passage (Figure ES4). They also showed stronger achievement in both reading and listening comprehension. Having time to read in class was also associated with higher spelling scores.

**Figure ES4: Effects of opportunity to read at school vs. no reading at school**

<table>
<thead>
<tr>
<th></th>
<th>read at school</th>
<th>do not read at school</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Letter Knowledge</strong></td>
<td>20.9</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>Letter Sound Identification</strong></td>
<td>6.15</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Familiar Word Reading</strong></td>
<td>12.0</td>
<td>9.1</td>
</tr>
<tr>
<td><strong>Invented Word Decoding</strong></td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Oral Reading Fluency</strong></td>
<td>11.0</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Total Items</strong></td>
<td>1.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Note: A much smaller scale than for the previous graph had to be used for the untimed tasks so that small group differences could be observed. In addition, dictation results were omitted from the analysis because of coding problems.

**Corrective Feedback**

In Yemen, the frequency with which teachers marked or provided comments to children in their language books was used as an index for the quantity of corrective feedback students received, as well as being an indication of the level of teacher engagement. The amount of feedback varied greatly, ranging from teachers who made no comments or markings in the language books to other teachers writing on every page. Analyses showed that the more teachers provided corrective feedback in students’ language books, the better students performed (Figure ES5). In each of the EGRA subtasks, children who received corrective feedback on most or all the pages of their language books obtained higher scores than children who did not receive or who had infrequent corrective feedback from their teachers.
Figure ES5: Effects of corrective feedback

In addition to looking at the amount of feedback provided in student exercise books, students were asked what happens when they incorrectly answer a question in class. While some students said their teacher restates the question (6%) or asks another student (6%), most students said they were punished for answering incorrectly by being hit by the teacher (58%) or scolded (14%). When comparing the EGRA results between students who reported receiving positive or corrective feedback with those who reported receiving negative feedback or punishment, the overall difference was statistically significant (p<.01). Compared with negative feedback or punishment, positive or corrective feedback was connected to significantly stronger performance in letter identification, letter sound knowledge, familiar word identification, and unfamiliar word identification. This is something to consider, as an environment that is conducive to learning is one where students feel comfortable participating even if they answer incorrectly at times.

**Recommendations**

The current EGRA results indicate a clear need to improve reading instruction in the early grades. It is therefore recommended that attention be focused on five key actions:

1. **Train teachers to teach reading.** Given the weak performance exhibited by students in most of the foundational reading skills, reforms to pre-service teacher training as well as supplementary in-service teacher training for existing teachers, should be considered. More specifically, training should include phonemic awareness, phonics instruction, reading fluency, vocabulary, and reading comprehension. Teaching these basic components of reading should begin in grade 1.

2. **Provide students with books and opportunities to read.** Students who had the opportunity to read at school tended to show stronger reading skills. Making more books available to children and setting aside time for them to read is a crucial first step toward improving reading outcomes.

3. **Encourage parents to improve children’s attendance.** Given that absenteeism and tardiness were linked to lower reading outcomes, intentionally reaching out to parents or caretakers about the importance of sending their child to school on time every day could help to improve attendance rates, and consequently improve reading skills.

4. **Train teachers to provide corrective feedback.** Yemeni teachers who were already providing more intensive and frequent feedback enjoyed higher student outcomes. Thus, refining and expanding teachers’ use of corrective feedback could play an important and promising role in improving students’ reading and writing outcomes in the primary grades.

5. **Train teachers to assess reading.** Specific benchmarks for each reading skill and in each grade should be established so that teachers, parents, education authorities, and students know if children are obtaining them, and if they are progressing appropriately. Such benchmarks can be created by identifying the skills demonstrated by pupils reading with at least 80% comprehension. As part of a comprehensive training in reading instruction, teachers should be trained to assess children against reading benchmarks.
1. Background

The Republic of Yemen is in the process of reforming and developing its education system and has welcomed international support in this effort. In addition to joining dozens of other countries in pursuing the Millennium Development Goal (MDG) of universal primary school enrollment by 2015, Yemen has also joined the Education for All Fast Track Initiative (EFA-FTI) to increase children’s access to school, especially in remote areas. Additionally, the country has received support from the World Bank’s International Development Association (IDA) for many years. The United States Agency for International Development (USAID) has been active in the country since the 1960s, and most recently has invested heavily in education, health, and agriculture.8

In 2003 Yemen’s Ministry of Education (MOE) drafted the National Basic Education Development Strategy (BEDS). The goals of the strategy include decentralizing the education system and improving access to basic education, with particular focus on closing the gaps between urban and rural school quality, as well as between boys and girls who attend school.9 Results have been positive: In 1999/2001 the gross enrollment rate for girls in primary school was only 51%; by 2007/2008 it had increased to 76%.10 As of 2008, the ratio of girls to boys enrolled in primary school was 80, and the primary school completion rate was 72% for boys. Though girls’ enrollment rates have increased, primary completion rates remain less than ideal (49%).11

In 1998, with the assistance of the Arab League, Yemen administered a national assessment of grades 4 and 9 in the subjects of Arabic language, mathematics, and science. In recent years, Yemen has not administered a national education assessment that is specific to its curriculum.

Illiteracy rates in Yemen have been startlingly high in the past, but have improved significantly in recent years. The adult literacy rate is 80% for males and 45% for females,12 however, among youth ages 15–24 the rates are 96% for males and 72% for females.13

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Yemen’s approach to education reform is described by the MOE in its National Report, the most recent of which was published in 2008. In addition to addressing issues of access, the report highlights improvements being made to the quality of education through a broad spectrum of approaches, from increasing teacher performance and administrative competence to developing better curricula and meeting infrastructure needs.\textsuperscript{14} With regard to literacy, the report notes that the difficult task of eradicating illiteracy is due in large part to the high incidence of students dropping out of school before they become proficient readers. While enrollment rates are relatively high, retention is quite low.\textsuperscript{15}

Although, as described above, Yemen has made great strides to ensure children have access to education, the reality is that simple school attendance is not a guarantee that adequate learning is taking place. This is becoming increasingly clear in the international community. The Center for Global Development asserted that “even in countries meeting the MDG of primary completion, the majority of youth are not even meeting \textit{minimal} competency levels, let alone the competencies demanded in a globalized environment.”\textsuperscript{16}

2. Evaluation Approach

Now that Yemen is well on its way to achieving universal primary education, the country can shift its main emphasis from issues of access to include the quality of education. The first step to effect such change is to develop a clear understanding of how children are learning to read in the primary grades. Assessments of student learning in the primary grades such as the Early Grade Reading Assessment (EGRA) offer an opportunity to determine whether children are developing the fundamental skills upon which all other literacy skills build, and, if not, where efforts might be best directed. This is vital information for countries that are working to improve the quality of education in their schools. Indeed, further evidence of growing international concern for learning outcomes, as opposed to attendance or completion rates, is the fact that EGRA has been adapted and used around the world, with implementations in over 40 countries.

A closer evaluation of students’ mastery of foundational reading skills would help reveal to Yemen’s MOE why learning outcomes have not improved as much as would be desired with regard to reading. For these reasons, USAID and the Yemen MOE tasked RTI International with administering EGRA to a sample of students in three governorates.

\textsuperscript{14} MOE (2008), National Report, p. 5.
\textsuperscript{15} MOE (2008), National Report, p. 13.
3. Overview of EGRA

3.1 Why Test Early Grade Reading?

The ability to read and understand a simple text is one of the most fundamental skills a child can learn. Without basic literacy there is little chance that a child can escape the intergenerational cycle of poverty. 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 students grow older; children who do not learn to read in the first few grades are more likely to repeat and eventually drop out, while the gap between early readers and nonreaders increases over time.

When children are learning to read, they must learn the letters and their forms, learn the sounds associated with each letter and diacritic marks, and apply this knowledge to decode (or “sound out”) new words that they can recognize instantly.17 By the end of this phase, children develop sufficient speed and accuracy in decoding and word recognition that they can read with fluency. When children read with fluency, they can read orally with the same speed and expression that they use in speech. Furthermore, reading with fluency is critical for reading comprehension, as children can concentrate on the meaning of what they read rather than focus on decoding.18, 19

Recent evidence indicates that learning to read both early and at a sufficient rate, with comprehension, is essential for learning to read well. A substantial body of research documents the fact that children can learn to read by the end of grade 2, and indeed need to be able to read to be successful in school. Importantly, children who do not learn to read in the early grades (grades 1–3) are likely to fall behind in reading and other subjects, to repeat grades, and eventually to drop out.

3.2 Purpose and Uses of EGRA

Historically, because there has been very little information regarding pupil learning in the early grades in low-income countries, EGRA was developed to provide a way to measure a child’s initial reading skills. EGRA was constructed to assess the reading and language skills identified to be critical for becoming fluent readers who comprehend what they read. More specifically, by assessing students’ knowledge of Arabic letters, decoding skills, oral reading fluency, and comprehension of written

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text and oral language, EGRA may inform ministries of education, donors, teachers, and parents about primary students’ reading skills. Because of its direct links with the skills critical for successful reading achievement, EGRA may assist education systems in setting standards and planning curricula to best meet children’s needs in learning to read.

### 3.3 What EGRA Measures

The EGRA instrument is composed of a variety of subtasks designed to assess foundational reading skills crucial to becoming a fluent reader. EGRA is designed to be a method-independent approach to assessment—that is, the instrument does not reflect a particular method of reading instruction (i.e., “whole language” or “phonics-based” approach). Rather, EGRA measures basic skills that a child must have to eventually be able to read fluently and with comprehension—the ultimate goal of reading. The EGRA subtasks are based on research regarding a comprehensive approach to reading acquisition across languages. These skills are described below:

- **Oral reading fluency** is often defined as the ability to orally read connected text with speed, accuracy, and proper expression. Reading fluency is considered critical for comprehension, as rapid, effortless word-identification processes enable the reader to focus on the text and its meaning rather than decoding, or sounding out the words.\(^{20}\)

- **Reading comprehension**, considered the goal of reading, refers to the ability to actively engage with, and construct meaning from, the texts that are read.

- **Listening comprehension** refers to one’s ability to make sense of oral language in the absence of print. Listening comprehension taps many skills and sources of knowledge, such as vocabulary knowledge, facility with grammar, and general background knowledge. Assessing listening comprehension is particularly important for a diglossic language such as Arabic, as children are often introduced to the formal dialect once they begin formal schooling. Thus, listening comprehension assesses children’s proficiency with the formal dialect of Arabic.

EGRA measures each of the above abilities/components to assess the foundational reading skills. The skills are tested in individual subtasks and presented in order of increased level of difficulty (i.e., letter sound identification, then word reading, etc.). Because the first few subtasks are easier, EGRA can therefore measure a range of reading abilities for beginning readers.

The EGRA consisted of the following nine sections:

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1. *Letter name knowledge* assessed children’s automaticity in letter recognition. This was a timed subtask, in which children were shown a chart containing 10 rows of 10 random letters. Students were asked to name as many letters they could within one minute, yielding a score of correct letters per minute.

2. *Initial sound identification* assessed children’s phonemic awareness (the ability to explicitly identify and manipulate the sounds of language). Phonemic awareness has been found to be one of the most robust predictors of reading acquisition, and is often used to identify children at risk for reading difficulties in the primary grades in developed countries. In this subtask, children were asked to listen to a word and identify the first sound in that word. After two practice items, children were given 10 test items. The final score was the number of words of which children successfully identified the initial sound, with the maximum possible score being 10.

3. *Letter sound knowledge* assessed children’s knowledge of the letter-sound relationships critical for sounding out new words. In this timed subtask, children were shown another chart containing 10 rows of 10 random letters. Instead of providing the letter names, as they had in the first subtask, children were asked to tell the examiner the sound of as many letters as they could within one minute, yielding a score of correct letter sounds per minute.

4. *Familiar word reading* assessed children’s skill at reading high-frequency words. Recognizing familiar words is critical for developing reading fluency. In this timed subtask, children were presented a chart of 50 familiar words. Children were asked to read as many words as they could within one minute, yielding a score of correct words per minute (cwpm).

5. *Invented word decoding* assessed children’s skill at applying letter-sound correspondence rules to decode unfamiliar words. To ensure that children were sounding out the words, rather than recognizing them, a chart of 50 pronounceable made-up words that followed legal spelling patterns in Arabic was shown to children. Children were asked to sound out as many invented words as they could within one minute, yielding a score of correct words per minute (cwpm).

6. *Oral passage reading* assessed children’s fluency in reading a passage of grade-level text aloud and their ability to understand what they had read. There were two parts to this subtask:
   a. *Oral reading fluency:* The ability to read passages fluently is considered a necessary component for reading comprehension. In this subtask, children were given a 58-word story, and were asked to read it aloud in one minute. The oral reading fluency score was the number of correct words read per minute (cwpm).
   b. *Reading comprehension:* After the children finished the passage, or the minute ended, the passage was removed. Children were orally asked six questions that required them to recall basic facts from the passage. The reading comprehension score was the number of correct answers, with a maximum possible score of 6.
7. **Listening comprehension** is considered to be a critical skill for reading comprehension as it is the ability to make sense of oral language. In this subtask, the examiner read a short passage to children. Children were then orally asked six questions about that passage. The listening comprehension score was the total correct answers, with a maximum possible score of 6.

8. **Dictation** assessed children’s skill at spelling. Children could spell familiar words from memory, or by sounding out words and applying the sound-spelling correspondences. In this subtask, the examiner read three words to the children, and children attempted to write the words’ spelling. Two scores were obtained for this subtask. The first score was the number of words spelled correctly. The second score was the number of letters from the target words that children had spelled correctly. The maximum possible score was 15.

9. A **student interview** was given orally to children after they had completed the reading and spelling subtasks. The purpose of the interview was to gather information about the home and school contexts that might explain children’s reading performance. For example, the children were asked about their access to reading and instructional materials at home and at school.

EGRA administration also always includes a “stop” rule, which requires assessors to discontinue the administration of a subtask if a pupil is unable to respond correctly to any of the items in the first line (i.e., the first 10 letters, the first five words, or the first line of the oral reading fluency story). This rule was established to avoid frustrating pupils who do not understand the subtask or lack the skills to respond. If a subtask needs to be discontinued, the EGRA administrator marks a box indicating that the subtask was discontinued because the child had no correct answers in the first line. Before administering the EGRA, administrators were required to read to children explicit information about the test and how it would be used. Pupils were asked to provide verbal assent to participate in the assessment.

### 3.4 EGRA Adaptation and Administration in Yemen

#### 3.4.1 Design and Adaptation

**Adaptation workshop**

Ten members of the Ministry of Education and Yemeni research organizations participated in a one-week instrument development and adaptation workshop that began on February 8, 2011. The group included the manager and researchers at the Human Science Department (Yemen); curriculum experts; education inspectors; and staff of the national Centre for Statistics organization, who acted as field supervisors during the data collection. The goal of the workshop was to design and create reading assessment tools that reflected the Yemeni school curriculum and measured skills that were relevant to the acquisition of reading in Arabic.
Pilot test of adapted instrument

Following the adaptation workshop, the instrument was pilot tested in four schools within the capital, Sana’a. (These schools were not included in the sample used for the final assessment.) The EGRA instrument was then put through rigorous item-level psychometric analyses (using the Rasch model), which helped to identify items that were too difficult or easy, as well as items that were redundant. Two reading passages of about 60 words and two shorter listening passages were pilot tested, and one of each was selected to be included in the final assessment (see Annex A).

3.4.2 Calibration and Reliability Testing

RTI researchers also carried out validity and reliability tests of EGRA. Cronbach’s alpha values indicated that the instruments showed good internal consistency ($\alpha = 0.84$). These statistics show how well a set of variables measures an underlying construct, and in the present study, they suggest that the different subtasks of the instrument all contributed to measuring early grade reading knowledge.

3.4.3 Administration of the Final EGRA for Yemen

Administering the full instrument designed for Yemen took approximately 15 minutes per child. The reading assessment was supplemented by student interviews, using a questionnaire, to clarify the demographic and social context in which students were learning to read. The EGRA was administered in Arabic, the language of instruction and the home language of all the students.

4. Sampling

Schools were randomly selected from within Amran, Lahj, and Sana’a—three governorates that were selected from a list provided by USAID. Schools located in unsafe areas or areas with limited accessibility were excluded from the sample selection process. A total of 40 schools was then sampled across the three governorates based on the number of students in schools, using systematic random sampling.

Because of the variation in population in the governorates, a stratified sampling approach was taken. The sample was stratified by governorate. The sample was then sorted by district, total number of students attending the school, shift, and type of school. The resulting schools sampled were representative of the population within each governorate.

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21 300 schools were excluded from the selection process.
22 Stratified sampling is a means of improving the representativeness of the sample, which in turn improves the quality of the inferences that can be drawn from the data.
Table 1: Adjusted population for student enrollment in Amran, Lahj, and Sana’a

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Number of schools in governorate</th>
<th>Proportion of sampled schools</th>
<th>Number of students in governorate</th>
<th>Proportion of sampled students</th>
<th>Number of schools selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amran</td>
<td>1,032</td>
<td>40.8</td>
<td>197,242</td>
<td>36.6</td>
<td>16</td>
</tr>
<tr>
<td>Lahj</td>
<td>327</td>
<td>12.9</td>
<td>87,266</td>
<td>16.2</td>
<td>8</td>
</tr>
<tr>
<td>Sana’a</td>
<td>1,171</td>
<td>46.3</td>
<td>254,971</td>
<td>47.2</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,530</strong></td>
<td><strong>100.0</strong></td>
<td><strong>539,479</strong></td>
<td><strong>100.0</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

Upon the selection of each school, two sets of reserve schools were automatically selected. Reserve schools would be used in case any sampled schools were not reachable or open or refused to participate.

The sample selection produced a final selection of 40 sampled schools (16 from Amran, 8 from Lahj, and 16 from Sana’a). At each sampled school, 10 students were randomly selected from grade 2 and 10 from grade 3. Table 2 summarizes the sample by governorate, gender, and grade.

Table 2: Number of participants in the final sample from each governorate, by gender and grade

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Boys</th>
<th>Girls</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amran</td>
<td>110</td>
<td>161</td>
<td>135</td>
<td>136</td>
<td>271</td>
</tr>
<tr>
<td>Lahj</td>
<td>111</td>
<td>49</td>
<td>80</td>
<td>80</td>
<td>160</td>
</tr>
<tr>
<td>Sana’a</td>
<td>199</td>
<td>105</td>
<td>153</td>
<td>151</td>
<td>304</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>420</strong></td>
<td><strong>315</strong></td>
<td><strong>368</strong></td>
<td><strong>367</strong></td>
<td><strong>735</strong></td>
</tr>
</tbody>
</table>

Throughout the report, results are given both for the entire sample and for each subgroup of interest. The results of the sample analysis are representative of the sample population. Estimations, including means and regressions, allow for interpretation of results for the entire population of students.

5. Descriptive Statistics

As part of the EGRA application, students were interviewed to collect information about student demographics, socioeconomic status, and other home and family factors.

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23 In addition to the 40 sampled schools, there was a first list of 40 reserve schools and a second list of 40 reserve schools such that for every sampled school, there were two reserve schools.

24 Sample weights were applied in all analyses to account for the sampling methodology.
that might influence reading achievement. In this section, the sample is further described using students’ answers to the interview questions.

The average age of students who participated in this study was 8.3 years in grade 2 and 9.4 years in grade 3 (Table 3). There was tremendous overlap in students’ ages, as students ranged from 6 to 13 years old in both grades. This age range adds to the complexity faced by teachers in Yemen, as teachers must adapt instruction for a wide range of cognitive development and home experiences.

Table 3: Participating students’ ages, by grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 2</td>
<td>6</td>
<td>13</td>
<td>8.3</td>
<td>0.06</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>13</td>
<td>9.4</td>
<td>0.06</td>
</tr>
</tbody>
</table>

5.1 Student Access to School

As previously mentioned, Yemen has made great strides in increasing primary school enrollment. In order for the increase in enrollment to have a positive impact on overall school outcomes, enrolled students must attend regularly and punctually.

5.1.1 Student Attendance

Student attendance has an important correlation with student achievement, as attending school provides children with the opportunity to learn. The majority of students (74%) reported that they were at school each day the previous week. Among the 26% of students who reported that they were absent within the previous week, close to half (48%) reported that they had been ill. Other reasons included waking up late, caring for a family member, needing to work, or spending time with family.

5.1.2 Student Tardiness

When children arrive at school late, their tardiness reduces their opportunities to learn by decreasing time at school, and lowers student achievement. Student learning is particularly disrupted by tardiness when the school day is short or when the school’s classes take place in multiple shifts. Almost all (93%) the children reported that they were on time for school each day the previous week. Among those students that did report being late to school during the previous week 19% were ill, 11% woke up late, and 16% had work to do at home. Transportation rarely was cited as a reason for being late, as 94% of the students walked to school, either alone (25%), with a family member (36%), or with a schoolmate (34%).

5.1.3 Student Preparedness to Learn

A number of factors may influence children’s preparedness to learn in school. For example, hunger may impede children’s concentration in class. However, 97% of the
children reported having a meal before arriving at school, and many children (44%) reported that they would have another meal at school.

Parental education is also important in ensuring students’ school readiness. Children with literate parents are more likely to succeed in learning to read. Although most children in the sample had literate fathers (88%), less than half the children reported their mothers could read (46%). The difference between paternal and maternal literacy rates reflects past gender differences in access to education.

The opportunity to listen to someone read gives students an important foundation in the process of learning to read. Approximately half the children reported that someone read to them less frequently than once a week, with 27% of children stating that no one had ever read to them (Figure 1). In contrast, 20% of the children reported that someone read to them on a daily basis, and another 22% of the children were read to several times a week.

Figure 1: Children’s reports of someone reading to them at home

<table>
<thead>
<tr>
<th>Frequency of someone reading to students</th>
<th>Percent of student responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>don’t know/refuse</td>
<td>1%</td>
</tr>
<tr>
<td>every day</td>
<td>20%</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>22%</td>
</tr>
<tr>
<td>once a week</td>
<td>6%</td>
</tr>
<tr>
<td>sometimes</td>
<td>23%</td>
</tr>
<tr>
<td>never</td>
<td>27%</td>
</tr>
</tbody>
</table>

Note: The “don’t know/refuse” category in graphs in this section indicates students who either answered “I don’t know” to that specific question or chose not to answer it at all.

5.1.4 Availability of reading materials and reading practice

Access to reading materials is critical for beginning readers. Without access to reading materials, students lack opportunities to develop and practice reading skills. Figure 2 presents students’ opportunities to read books and their access to at least one exercise book. Overall, students reported limited opportunities to read books. About half the students (49%) were given time in class to read. Providing children time in class to develop and practice reading skills is essential, as few children (26%) had books at home, and fewer (17%) could bring books home from school.
In addition to access to reading materials, beginning readers also need someone to listen to them as they practice reading aloud. However, 51% of the children in Yemen said they read out loud less frequently than on a weekly basis, and 29% of the children never read out loud at home (Figure 3). Only 18% of the children said that they read out loud at home on a daily basis.

In order to develop proficient reading and writing skills, students must also have practice writing in their language books. Assessors examined students’ language books and found that they were underused (Figure 4). Whereas only 14% of children could not produce a language book at all, 31% of the language books were only one-
quarter used. About half of the language books were either half full (25%) or three-quarters full (23%). Only 7% of the students had either completely used their language books or had more than one. Data collection took place in April, seven months into the school year.

Closer examination of the language books showed very few examples (1.4%) of students’ original work or stories.

**Figure 4: Children’s use of language books**

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>don’t know/refuse</td>
<td>0%</td>
</tr>
<tr>
<td>more than one book</td>
<td>3%</td>
</tr>
<tr>
<td>all</td>
<td>4%</td>
</tr>
<tr>
<td>three quarters</td>
<td>23%</td>
</tr>
<tr>
<td>half</td>
<td>25%</td>
</tr>
<tr>
<td>one quarter</td>
<td>31%</td>
</tr>
<tr>
<td>No exercise book...</td>
<td>14%</td>
</tr>
<tr>
<td>total</td>
<td>100%</td>
</tr>
</tbody>
</table>

5.1.5 Homework

The majority of students (61%) reported being assigned homework on a daily basis. Among the remaining students, the frequency with which homework was assigned varied, with 23% stating that they had received homework 1–3 times, and another 12% reporting that they had received homework 4 times a week. When children experienced difficulties with their homework, the majority (71%) did not turn to an adult for help. One quarter of children did not receive help from anyone, while 45% were helped by a sibling. Approximately one quarter of children (26%) were helped by parents.

5.1.6 Feedback

Teacher feedback plays an important role in facilitating students’ ongoing improvement, and better ensures that students will achieve curricular goals. The majority (69%) of students’ language books showed that teachers were at least providing feedback on their written work (*Figure 5*). The frequency of teacher feedback varied, with 30% of the children receiving feedback on most pages, and 8% receiving feedback on every page.
The nature of the feedback students receive is also important. Creating a positive learning environment can help students to flourish as they feel encouraged to succeed and are comfortable asking questions without fear of reprisal. Students reported that teachers responded in a range of ways when they were unable to answer a question. Some teachers directly addressed students’ difficulties by encouraging the student to try again (6%), some asked another student (6%), restated the question (2%), or provided correction (6%). In contrast, most students reported that they had been punished when they could not answer a question, by being hit (58%), scolded (14%), or sent outside of the classroom (1%).

We divided the responses into two groups: students who received positive or corrective feedback when they were unable to answer a question (teacher rephrased or explained the question, encouraged the student to try again, asked again, asked another student, or corrected the student but did not scold him/her) and students who received negative feedback or punishment when they were unable to answer a question (teacher scolded student, sent student out of the room, or hit student).

When comparing the EGRA results between the two groups, the overall difference was statistically significant (p < .01). Compared with negative feedback or punishment, positive or corrective feedback led to significantly stronger performance in letter identification, letter sound knowledge, familiar word identification, and unfamiliar word identification (Figures 6a and 6b).

---

Figure 6a:  EGRA results by teacher response when students could not answer a question (timed subtasks)

<table>
<thead>
<tr>
<th></th>
<th>Corrective Feedback</th>
<th>Punishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Knowledge</td>
<td>21.18</td>
<td>18.44</td>
</tr>
<tr>
<td>Letter Sound</td>
<td>6.67</td>
<td>4.85</td>
</tr>
<tr>
<td>Identification</td>
<td>11.07</td>
<td>8.89</td>
</tr>
<tr>
<td>Familiar Word</td>
<td>4.47</td>
<td>3.19</td>
</tr>
<tr>
<td>Reading</td>
<td>9.73</td>
<td>8.53</td>
</tr>
</tbody>
</table>

Figure 6b:  EGRA results by teacher response when students could not answer a question (untimed subtasks)

<table>
<thead>
<tr>
<th>Initial Sound Identification</th>
<th>Reading Comprehension</th>
<th>Listening Comprehension</th>
<th>Dictation (Words correct)</th>
<th>Dictation (Letters correct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrective Feedback</td>
<td>1.2</td>
<td>0.5</td>
<td>1.26</td>
<td>0.84</td>
</tr>
<tr>
<td>Punishment</td>
<td>1.19</td>
<td>0.4</td>
<td>1.16</td>
<td>0.72</td>
</tr>
</tbody>
</table>
6. Summary EGRA Scores

This section presents summary statistics for all subtasks of the EGRA in Yemen. As expected, students in grade 3 performed better than those in grade 2. Girls in Yemen tended to show stronger performance than boys; however, these differences were not statistically significant.

Table 4 reveals that early reading skills were low across all the EGRA measures. Few students could read with sufficient fluency to enable them to comprehend the text. Further, children had limited prereading skills. Students in grade 2 could identify almost 17 letters by name in a minute, and they could produce the sounds of about 5 letters in that same time. Their peers in grade 3 could correctly name 22 letters and produce the sounds of 6.2 letters per minute. Children’s limited mastery of the letters and the sounds associated with them, coupled with low scores in identifying the initial sounds of words (on average, 1 of 10), contributed to very low scores in familiar word reading and invented word decoding. Not unexpectedly, then, children’s reading comprehension scores also were low, with 0.24 total correct answers in grade 2 and 0.59 in grade 3. Listening comprehension scores were somewhat higher, with an average of 0.85 total correct answers in grade 2, and 1.51 in grade 3.

<table>
<thead>
<tr>
<th>Subtask</th>
<th>% students with zero scores(^{a})</th>
<th>Grade 2 total</th>
<th>Grade 3 total</th>
<th>Overall total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter name knowledge</td>
<td>3.45</td>
<td>16.78</td>
<td>21.52</td>
<td>19.06</td>
</tr>
<tr>
<td>Initial sound identification</td>
<td>66.00</td>
<td>1.04</td>
<td>1.35</td>
<td>1.19</td>
</tr>
<tr>
<td>Letter sound knowledge</td>
<td>32.73</td>
<td>4.74</td>
<td>6.22</td>
<td>5.45</td>
</tr>
<tr>
<td>Familiar word reading</td>
<td>42.58</td>
<td>6.74</td>
<td>12.32</td>
<td>9.42</td>
</tr>
<tr>
<td>Invented word decoding</td>
<td>53.40</td>
<td>2.63</td>
<td>4.50</td>
<td>3.53</td>
</tr>
<tr>
<td>Oral reading fluency</td>
<td>34.54</td>
<td>5.84</td>
<td>11.98</td>
<td>8.80</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>60.15</td>
<td>0.24</td>
<td>0.59</td>
<td>0.41</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>46.61</td>
<td>0.85</td>
<td>1.51</td>
<td>1.17</td>
</tr>
<tr>
<td>Dictation: correct words</td>
<td>56.51</td>
<td>0.62</td>
<td>0.91</td>
<td>0.75</td>
</tr>
<tr>
<td>Dictation: correct letters</td>
<td>7.80</td>
<td>7.28</td>
<td>10.22</td>
<td>8.70</td>
</tr>
</tbody>
</table>

\(^{a}\) See Section 3.4 for an explanation of scoring units for each subtask.

Examining children’s performance without considering zero scores may not provide a clear picture of the reading achievement of children who do learn to read. Zero scores can depress the overall average, and examination of Figure 7 suggests that the large
number of zero scores likely had this effect. More than half the children in grade 2 were unable to read a single word, whether they were familiar or invented words, presented in isolation; or to spell a single word. Answering comprehension questions was also problematic for most of the grade 2 students.

**Figure 7: Percentage of EGRA zero scores in grades 2 and 3**

Because a large number of students received a zero score on EGRA subtasks, an analysis of averages of those who were able to identify letters or words is pertinent. Excluding zero scores may produce a clearer picture of the reading performance of students who can complete the tasks, as the zero scores may lead to underestimates of the letter- and word identification skills of these students. **Table 5** presents the mean scores for students who were able to successfully complete at least one item on each of the EGRA subtasks.

**Table 5: Summary of EGRA scores once zero scores were excluded from the analyses**

<table>
<thead>
<tr>
<th>Subtask</th>
<th>Grade 2 total</th>
<th>Grade 3 total</th>
<th>Overall total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter name knowledge</td>
<td>17.65</td>
<td>22.00</td>
<td>19.77</td>
</tr>
<tr>
<td>Initial sound identification</td>
<td>3.35</td>
<td>3.71</td>
<td>3.54</td>
</tr>
<tr>
<td>Letter sound knowledge</td>
<td>7.48</td>
<td>8.73</td>
<td>8.12</td>
</tr>
<tr>
<td>Familiar word reading</td>
<td>14.34</td>
<td>18.04</td>
<td>16.47</td>
</tr>
<tr>
<td>Invented word decoding</td>
<td>7.35</td>
<td>7.74</td>
<td>7.58</td>
</tr>
<tr>
<td>Oral reading fluency</td>
<td>10.10</td>
<td>16.31</td>
<td>13.46</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>1.30</td>
<td>1.69</td>
<td>1.55</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>1.96</td>
<td>2.36</td>
<td>2.19</td>
</tr>
</tbody>
</table>
Table 6: Summary of EGRA scores compared to the number of items attempted

<table>
<thead>
<tr>
<th>Subtask</th>
<th>Score</th>
<th>Attempted</th>
<th>Percent correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter name knowledge</td>
<td>19.06</td>
<td>32.74</td>
<td>58.2%</td>
</tr>
<tr>
<td>Initial sound identification</td>
<td>1.19</td>
<td>6.64</td>
<td>17.9%</td>
</tr>
<tr>
<td>Letter sound knowledge</td>
<td>5.45</td>
<td>28.64</td>
<td>19.0%</td>
</tr>
<tr>
<td>Familiar word reading</td>
<td>9.42</td>
<td>18.33</td>
<td>51.4%</td>
</tr>
<tr>
<td>Invented word decoding</td>
<td>3.53</td>
<td>14.10</td>
<td>25.0%</td>
</tr>
<tr>
<td>Oral reading fluency</td>
<td>8.80</td>
<td>19.54</td>
<td>45.0%</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>0.41</td>
<td>2.09</td>
<td>19.6%</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>1.17</td>
<td>6.00</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

Note: Dictation results were omitted from the analysis because of coding problems.
Table 6 shows that children had limited accuracy in their responses on each of the EGRA subtasks. Children were most successful in identifying letter names, accurately naming 19 of the 33 letter names they attempted. Children accurately read half (9.4) of the 18 familiar words they attempted, and 45% (8.8) of the 19.5 words they attempted in the passage. Children struggled to a greater extent with the three tasks that tapped their phonological (sound) processing skills, with their accuracy ranging between 18% and 25% in initial sound identification, letter sound knowledge, and invented word decoding. Although children were more successful at recognizing words, their letter-sound knowledge was very limited, and they showed great difficulty in decoding invented words. This shows that for children the challenge is most likely the ability to identify letter sounds, decode unfamiliar words, and recognize known words, rather than speed in doing so.

Once again, because most students received scores of zero on at least some of the EGRA subtasks, we compared the accuracy on each of the subtasks to the number of items attempted on those subtasks after excluding zero scores. Table 7 presents the mean scores for students who were able to provide at least one correct response on the EGRA subtasks.

<table>
<thead>
<tr>
<th>Subtask</th>
<th>Score</th>
<th>Attempted</th>
<th>Percent correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter name knowledge</td>
<td>19.77</td>
<td>33.63</td>
<td>58.8%</td>
</tr>
<tr>
<td>Initial sound identification</td>
<td>3.54</td>
<td>9.82</td>
<td>36.0%</td>
</tr>
<tr>
<td>Letter sound knowledge</td>
<td>8.12</td>
<td>37.26</td>
<td>21.8%</td>
</tr>
<tr>
<td>Familiar word reading</td>
<td>16.47</td>
<td>26.68</td>
<td>61.7%</td>
</tr>
<tr>
<td>Invented word decoding</td>
<td>7.58</td>
<td>23.74</td>
<td>31.9%</td>
</tr>
<tr>
<td>Oral reading fluency</td>
<td>13.46</td>
<td>25.94</td>
<td>51.9%</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>1.55</td>
<td>3.69</td>
<td>42.0%</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>2.19</td>
<td>6.00</td>
<td>36.5%</td>
</tr>
</tbody>
</table>

Note: Dictation results were omitted from the analysis because of coding problems.

As can be seen, even after zero scores are removed, children showed similar patterns of accuracy on the items that they had attempted on each of the subtasks of the EGRA. Children who were able to read at least one word could read between 52% and 62% of the words that they attempted. In contrast, they showed weaker mastery of how speech sounds map onto print. For example, children who knew the sounds of at least one letter were successful in producing the appropriate letter sounds in only 22% of their attempts. Similarly, children who could decode at least one invented word successfully decoded only about one third (32%) of the invented words they had
attempted. Thus, even when zero scores were excluded from the analyses, children were not showing mastery of basic word recognition and decoding skills. Further, children were successful at answering fewer than half of the listening and reading comprehension questions.

### 6.1 Subtask Analysis

In the section that follows, each subtask is presented with a look at the proportion of children who scored zero, and comparisons between groups.

#### 6.1.1 Letter Name Knowledge

In the most basic subtask, letter name knowledge, students were presented a chart with 100 random letters, and were asked to name as many letters as they could within one minute. Letter recognition is considered a prerequisite skill for beginning reading, and has been found to be a strong predictor of reading growth in abjads such as Arabic. Scores for this subtask were the number of letter sounds the student could correctly generate within one minute (correct letters per minute). Figure 8 presents children’s fluency in identifying letters in grades 2 and 3. As can be seen, almost all children in second grade could identify at least one letter, with about one third of the children identifying between 1 and 10 letters in a minute, and close to 40% of the children identifying over 20 letters in one minute. In third grade, children showed greater skill at letter identification, with 59% of the children naming more than 20 letters in one minute.

**Figure 8: Percentage of students identifying 0, 1–10, 11–20, and >20 correct letter names per minute (clpm) in grades 2 and 3**

![Percentage of students identifying 0, 1–10, 11–20, and >20 correct letter names per minute (clpm) in grades 2 and 3](image)
6.1.2 Initial Sound Identification

The initial sound identification subtask, a measure of phonemic awareness, required children to identify the first sound of 10 words. Phonemic awareness is essential for learning to decode, as children must recognize the sounds that they then must associate with the letters they had recognized. The final score was the number of words for which children successfully identified the initial sound. Figure 9 presents children’s initial sound identification scores in grades 2 and 3. As can be seen, most children were unable to identify the first sound of a single word. Because of the strong relationship between phonemic awareness and beginning reading, children will benefit from explicit and systematic instruction in building this critical skill.

![Figure 9: Percentage of students identifying 0, 1–2, and 3+ initial sounds of words in grades 2 and 3, with a maximum possible score of 10](image)

6.1.3 Letter Sound Knowledge

In the letter sound knowledge subtask, students were presented a chart with 100 random letters, and were asked to generate the sounds of as many letters as they could within one minute. Knowledge of the letter-sound correspondences is critical for beginning reading, as this skill enables children to decode, or sound out, new and unfamiliar words. Scores for this subtask were the number of letter sounds the student could correctly generate within one minute (correct letters per minute). This is a challenging task for children, as children may be more accustomed to producing the names of letters, rather than their sounds, when asked. Further, children might have been unfamiliar with the testing situation, which could interfere with their performance. Figure 10 presents the fluency of children in identifying letter sounds in grades 2 and 3. As can be seen, the majority (85%) of the children in grade 2 could identify only between 0 and 10 letter sounds. Those in grade 3 performed slightly
better, with 20% (as opposed to 16%) identifying 11 or more letter sounds. Although boys tended to be more successful in producing letter sounds in grade 2, by grade 3 boys and girls showed similar patterns of performance. These results, coupled with children’s low accuracy in producing the sounds of letters that were attempted (about 25%), suggest that children would benefit from greater instruction in the letters and their sounds.

**Figure 10:** Percentage of students reading 0, 1–10, 11–20, and >20 correct letter sounds per minute (clpm) in grades 2 and 3

![Bar chart showing percentage of students reading different letter sounds per minute in grades 2 and 3.](image)

6.1.4 Familiar Word Reading

In the familiar word reading subtask, students were presented a chart with 50 high-frequency words, and were asked to pronounce as many of the words as they could within one minute. Skill at reading familiar words is critical for developing reading fluency. Scores for this subtask were the number of words the student could correctly read within one minute (correct words per minute). The results summarized in **Figure 11** support earlier findings that children’s word recognition skills improved between grades 2 and 3. Whereas half of the children in second grade were unable to read a single word, 27% of the children in third grade were unable to do so. The converse pattern was found for children who could read more than 20 familiar words in a minute. Whereas 12% of the children in grade 2 could recognize more than 20 cwpm, 29% of the children in grade 3 could read at this rate. Although it is encouraging to see such improvements between second and third grades, 20 cwpm means that children require approximately 3 seconds to recognize each word. Thus, these findings suggest that children need greater instruction to build their word recognition skills.
In the invented word subtask, students were presented a chart with 50 invented words, and were asked to pronounce as many of the words as they could within one minute. Skill at reading invented or words may be considered a purer measure of decoding than using real words, as children cannot recognize the words by sight. Although this subtask would not assess children’s recognition of words that have been taught to them, decoding is considered a self-teaching skill that enables children to figure out how to pronounce new and unfamiliar words. Scores for this subtask were the number of words the student could correctly read within one minute (correct words per minute). The results summarized in Figure 12 show that reading invented words is considerably more difficult than reading familiar words. Indeed, 63% of students in grade 2 were unable to read a single word. Although many third-grade students continued to struggle in reading invented words, their numbers decreased, as 40% of third-grade students were unable to decode any of the invented words. Students were successful in decoding 25% of the unfamiliar words that they attempted. Thus, these findings, combined with those from the letter sound knowledge subtask, suggest that children need greater instruction in the letter sounds and strategies for decoding new words.
6.1.6 Oral Reading Fluency

In the oral reading fluency subtask, children were asked to read a narrative passage of local relevance within one minute. Oral reading fluency may be considered an important index of reading competence, as it taps the skill and speed with which children translate letters into sounds, decode unfamiliar words, recognize known words, and make sense of the text’s meaning simultaneously. Weakness in any one of these processes can slow or disrupt children’s reading fluency. The score for this subtask was the number of words from the passage children accurately read in one minute (cwpm).

Figure 13 below shows that 43% of the students in grade 2 and 25% of their peers in grade 3 could not read a single word. As a result, the average was around 6 cwpm in grade 2, and about 12 cwpm in grade 3. Among children who could read at least one word, students in grade 2 read on average 11 cwpm, and students in grade 3 read about 16 cwpm. These rates are less than one quarter of the recommended 60 cwpm required for adequate comprehension. Further, children accurately read approximately half of the words they attempted.

Correlational analyses suggest that children’s weak oral reading performance may be attributable to their limited knowledge of the letter names (with a moderate to large correlation of $r = .59$), weak familiar word recognition skills (with a large correlation of $r = .88$), and weak decoding skills (with a large correlation of $r = .79$). Taken together, these findings show that children’s limited mastery of the letter names, poor sight word recognition, and weak decoding skills must be addressed to improve their oral reading fluency.
6.1.7 Reading Comprehension

After they had read the passage for one minute, the students who were able to read at least one word correctly were asked six questions about the story. Questions were both literal, requiring students to directly recall information from the story; and inferential, requiring students to combine information from the story with their background knowledge to derive a correct answer. Children’s reading comprehension scores were recorded as the number of correct responses to the six questions. As mentioned in the summary at the beginning of Section 6, overall, children had very weak reading comprehension scores, with the majority of students unable to answer a single question (Figure 14). In grade 2, the average comprehension scores ranged from 0.22 to 0.27; and in grade 3, comprehension scores were marginally better at 0.59.
Numerous large-scale studies and meta-analyses have reported robust correlations between oral reading fluency and reading comprehension. The relationship between decoding speed and reading comprehension is particularly strong among beginning readers, as their word recognition skills still require conscious control. This was supported by the large correlation ($r = .64$) between students’ scores in oral reading fluency and reading comprehension. Similarly, Figure 15 illustrates the well-documented and complex relationship between oral reading fluency and reading comprehension. Children who could answer five of the six comprehension questions—a comprehension rate of 83%—read at least 45 cwpm. Although some children who read with the same or greater fluency had lower comprehension scores, no child who read more slowly than 23 cwpm could answer half of the comprehension questions. These findings confirm that fluent oral reading is necessary but not sufficient for reading comprehension. In other words, addressing children’s word recognition and decoding skills is critical for improving children’s reading comprehension, but is not the only step required.

26 See Abu-Rabia (2007); and also:
6.1.8 Listening Comprehension

In the EGRA listening comprehension subtask, the assessor read a short narrative story to the students, followed by six questions about that story. This was purely a listening subtask, as the students were not given a copy of the story to follow along or have as reference when answering the questions. Although the listening comprehension subtask typically assesses a range of language and skills, such as attention, vocabulary knowledge, comprehension strategies, processing of oral language, and generation of appropriate replies, for Yemeni children, it also assessed their proficiency in the formal dialect of Arabic, which differs substantially from the vernacular dialect used in their homes. Comparing children’s comprehension in these two modalities is important, as it allows us to determine whether poor reading comprehension can be attributed to limited reading skills or more general difficulties in comprehending the formal Arabic dialect used in schools.

In general, the listening comprehension subtask proved to be very challenging to students (Figure 16). Although children’s listening comprehension was stronger than their reading comprehension scores, their overall performance was still weak. About half the students in grade 2 and 30% of the students in grade 3 could not answer a single question. Furthermore, only about 12% of students in second grade and 27% of students in third grade answered at least half of the listening comprehension questions correctly. These findings emphasize the often underestimated challenge faced by
children schooled in Arabic, as proficiency in the vernacular, home dialect does not prepare students for the linguistic demands of the formal dialect used in schools.

**Figure 16: Percentage of students obtaining listening comprehension scores of 0, 1, 2, and 3+ in grades 2 and 3**

![Figure 16: Percentage of students obtaining listening comprehension scores of 0, 1, 2, and 3+ in grades 2 and 3](chart_image)

The research team also examined the relationship between listening comprehension and reading comprehension. Whereas oral reading fluency shared a large correlation with reading comprehension ($r = .64$), listening comprehension’s relationship with reading comprehension was more moderate ($r = .43$). Thus, it appears that in addition to children’s decoding skills, children’s reading comprehension also reflected their difficulties in comprehending oral stories. Children would benefit not only from instruction that would build their decoding and word recognition skills, but also from instruction that would help them further develop their oral language skills.

### 6.1.9 Dictation

The dictation subtask assessed children’s skill at spelling. Children could spell familiar words from memory, or by sounding out words and applying the sound-spelling correspondences. In this subtask, the examiner read three words to the children, and children attempted to write the words’ spelling. The results revealed that 65% of the children in second grade and 42% of the children in third grade could not spell a single word correctly. This pattern is very similar to children’s performance on the invented word decoding subtask, further supporting the recommendation that children need greater instruction in the letter sounds and strategies for decoding new words.
6.2 What Contributes to Student Reading Achievement?

In order to better meet children’s learning needs, it is important to identify circumstances that were related to student reading achievement. These influences might have been features of the home, classroom practices, access to materials, and teacher qualifications. Identifying the influences that can be modified through policy, resource allocation, and professional development for teachers is a critical step in enhancing children's academic outcomes. Thus, examiners asked the students several questions concerning socioeconomic status and their access to reading materials both in and out of school.

This section discusses the results of multiple regression models to examine which factors did predict reading achievement. Responses to the questionnaires were compared to students’ oral reading fluency scores. There were very few statistically significant relationships due to the limited variance in children’s low oral reading scores. That is, because students had similarly low scores, the relationships between socioeconomic status and parental education may be depressed. Thus, only the statistically significant results are presented.

The results showed three main factors contributing to children’s reading performance in school: attending school on time, having opportunities to practice reading, and receiving corrective feedback from teachers.

6.2.1 Attendance

Students who reported that they had been absent the previous week showed weaker performance on most of the subtasks of the EGRA (Figure 17). Students who had missed at least one day of school the previous week identified 1.18 fewer correct letter sounds, read 2.51 fewer familiar words in lists and 2.16 fewer words in the passage, and were less accurate in spelling the three dictated words (spelling on average 8.36 letters correctly compared to the 9.29 letters spelled accurately by the children who did not miss school). Children who did not miss school were also more successful in answering the reading comprehension questions.
Figure 17: Literacy achievement for students who had and had not missed school the previous week

Note: Separate scales were used for the two parts of Figure 17. The graph on the left shows student performance on the timed tasks, and uses items/minute as the unit of measurement. The graph on the right shows student performance on the tasks that were untimed, and had a restricted range for possible scores (initial sound identification had 10 items, there were six questions for the reading comprehension and listening comprehension tasks, and three words were given in dictation).

Arriving at school on time is also important, as student tardiness limits opportunities to learn and practice the literacy skills taught in school. Students who reported that they had been late the previous week showed weaker performance on most of the subtasks of the EGRA (Figure 18). Students who had arrived late at least one day the previous week identified 1.22 fewer correct letter sounds, read 4.01 fewer familiar words in lists and 3.57 fewer words in the passage, and were less accurate in spelling the three dictated words (spelling on average 8.73 letters correctly compared to the 9.05 letters spelled accurately by the children who were not tardy). Children who had arrived on time every day were also more successful in answering the reading comprehension questions.
Figure 18: Literacy achievement for students who had and had not been late for school the previous week

<table>
<thead>
<tr>
<th></th>
<th>no late arrivals</th>
<th>late at least one day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Knowledge</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Letter-Sound Identification</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Familiar Word Reading</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Invented Word Decoding</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Oral Reading Fluency</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Like Figure 17, separate scales were used for the two parts of Figure 18. The graph on the left shows student performance on the timed tasks, and uses items/minute as the unit of measurement. The graph on the right shows student performance on the tasks that were untimed, and had a restricted range for possible scores.

6.2.2 Opportunities for Practice

The findings in Yemen illustrated that giving students opportunities to practice is critical for building their beginning literacy skills. One important way of doing so is by providing children with the opportunity to read at school. Children who reported that they had time to read at school obtained significantly higher scores in reading familiar words, whether they were presented in a list or in a passage (Figure 19). They also showed stronger achievement in both reading and listening comprehension. Having time to read in class was also associated with higher spelling scores.
Figure 19: Literacy achievement for students as a function of having time to read at school

<table>
<thead>
<tr>
<th>read at school</th>
<th>do not read at school</th>
</tr>
</thead>
</table>

Note: Like previous figures, separate scales were used for the two parts of Figure 19. The graph on the left shows student performance on the timed tasks, and uses items/minute as the unit of measurement, whereas the graph on the right shows student performance on the tasks that were untimed. Moreover, a much smaller scale than for the previous graphs had to be used for the untimed tasks so that small group differences could be observed.

6.2.3 Corrective Feedback

Receiving corrective feedback is an important factor in reading achievement for children. In Yemen, the frequency with which teachers marked or provided comments to children in their language books was used as an index for the quantity of corrective feedback students received. Teachers varied tremendously in the amount of feedback they gave children, ranging from no comments or markings in the language books to other teachers writing on every page.

There are two primary ways in which this feedback is critical. First, teachers who provided feedback on each page would be better informed of the skills and needs of their students, and could use this information to better modify and adapt instruction to meet students’ instructional needs. Another benefit to providing corrective feedback is that students would be better able to correct errors, clarify misconceptions, and learn more effectively.

Overall, there was a direct relationship between the frequency with which teachers provided corrective feedback and student outcomes (Figure 20). Regression analyses showed that as the frequency increased with which teachers provided corrective feedback in students’ language books, student achievement increased in terms of their knowledge of the names and sounds of letters, their skill at reading familiar and
unfamiliar words, their fluency in reading a passage aloud, their ability to answer reading comprehension questions, and their spelling skills. In each of the EGRA subtasks, children who received corrective feedback on most or all the pages of their language books obtained higher scores than children who did not receive corrective feedback, or had infrequent feedback, from their teachers.

Figure 20: Literacy achievement as a function of the amount of corrective feedback in student language books

<table>
<thead>
<tr>
<th>Feedback Type</th>
<th>Items per minute</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>no feedback</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>every few pages</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>most pages</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>all pages</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: Like previous figures, separate scales were used for the two parts of Figure 20. The graph on the left shows student performance on the timed tasks, and uses items/minute as the unit of measurement. The graph on the right shows student performance on the tasks that were untimed, and had a restricted range for possible scores.

7. Conclusion and Recommendations

7.1 Summary of Key Results

The results of the Early Grade Reading Assessment in Arabic conducted in Amran, Lahj, and Sana’a revealed that by the end of grade 3, the majority of students had not yet acquired sufficient foundational skills to read fluently with comprehension in Arabic, the primary language of instruction in primary school.
Specifically, overall, children showed limited letter knowledge, a fundamental and critical skill for learning to read and spell. Yemeni students on average could identify 19.1 correct letters per minute out of the 100 letters in the sample, and could accurately identify the sounds associated with 9.5 letters in one minute. One third of the children (33%) were unable to correctly produce the sound of any letters. Given students’ difficulties in identifying letter sounds, it is not surprising that children could not sound out, or decode, unfamiliar words, reading on average 4.5 invented words at the end of grade 3. Indeed, over half the children (53%) could not decode a single invented word. Difficulties in decoding were not limited to unfamiliar or invented words, as children read lists of familiar words at a rate of 12.5 correct words per minute at the end of grade 3. In other words, these Yemeni children required almost 5 seconds to read each familiar, grade-level word. Children’s spelling skills were also weak, with over half the children (56%) unable to spell any of the three words. The weak spelling skills reflect children’s limited mastery of how the Arabic sounds are represented by Arabic letters. Taken together, these findings suggest that children still need to acquire the foundational skills of recognizing the letters and their different forms, knowing the sounds associated with each letter and diacritic mark, and applying this knowledge to sound out unfamiliar words; and instantaneously recognizing familiar, high-frequency words.

Because the children had not acquired the basic building blocks for reading, their oral reading fluency scores were low. Children read on average 9.0 correct words per minute, with 35% of the students unable to read a single word. As a consequence, reading comprehension was low, as only 5% of the students could correctly answer at least three of the six reading comprehension questions. In contrast, children’s listening comprehension was somewhat stronger, with the average score being 1.2 (compared to 0.3 for reading comprehension. These findings suggest that Yemeni children need greater instructional support not just in their word recognition and decoding skills, but also in building the oral language skills in the high dialect used in schools. To reiterate an earlier point, Arabic is a diglossic language, making proficiency in both the vernacular, home dialect and the high, school-based dialect critical for academic success. Although students might have been proficient in the vernacular dialect, their listening comprehension skills were assessed using the high dialect.

7.2 Recommendations

The current EGRA results indicate a clear need to improve reading instruction in the early grades. Such an endeavor will require focusing energy and attention on the following key actions:

**Train teachers to teach reading:** Reading is a fundamental skill critical for learning in other subjects, and it must be learned in the early grades. Therefore, teachers need to be trained to teach the five foundational components of reading, including phonemic awareness, phonics instruction, reading fluency, vocabulary, and reading comprehension, beginning in grade 1. Most children had very little proficiency in any of these skills by the end of grade 3. Furthermore, teachers need training in what the
structural differences are between the two dialects of Arabic, and how to help children become proficient in the formal dialect used in schools. Therefore, it appears that teachers may need greater support in how to instruct their students in phonics, reading fluency, reading comprehension strategies, and the formal dialect of Arabic.

**Provide students with books and opportunities to read:** Overall, children had limited access to reading materials both in school and out of school. Students who had the opportunity to read at school tended to show stronger reading skills. Reading at school had a large effect on children’s word recognition skills, spelling skills, and comprehension of both oral language and written texts. Providing children with books is critical if children are to have the opportunity to practice their reading skills. Thus, making books available to children is a crucial first step toward improving reading outcomes.

**Encourage parents to improve children’s attendance:** Given that absenteeism and tardiness were linked to lower reading outcomes, intentionally reaching out to parents or caretakers about the importance of sending their child to school on time every day could help to improve on-time attendance rates, and consequently improve reading skills. An initiative through the parent-teacher association (PTA) could be one way to address this.

**Train teachers to assess reading:** Specific benchmarks for each reading skill and in each grade should be established so that teachers, parents, education authorities, and students know if children are obtaining them, and if they are progressing appropriately. Such benchmarks can be created by identifying the skills demonstrated by pupils reading with at least 80% comprehension. As part of a comprehensive training in reading instruction, teachers should be trained to assess children against reading benchmarks. By assessing pupils’ learning against a common standard, they can adjust instruction as appropriate. Indeed, students who received corrective feedback and comments from their teachers achieved better scores for letter knowledge, spelling, word reading, and reading comprehension. Thus, refining and expanding teachers’ use of assessment data throughout Yemeni schools could play an important role in enhancing student reading outcomes in the primary grades.

**Train teachers to provide corrective feedback:** In addition to being trained in how to assess students’ reading and writing skills, teachers should be trained to provide effective corrective feedback to students. Yemeni teachers who were already providing more intensive and frequent feedback enjoyed higher student outcomes in letter knowledge, oral reading, spelling, and reading comprehension. Thus, refining and expanding teachers’ use of corrective feedback could play an important and promising role in improving students’ reading and writing outcomes in the primary grades.
Annex A. EGRA Instrument for Yemen
تعليمات عامة:
من المهم جدا إيجاد بيئة مريحة وقائمة على اللعبة وخلق حوار من خلال مناقشة موضوعات تهم التلميذ/ة التلميذ/ة وذلك لتكون آلفة مع الطفلة ووضع الفحص. كما يجب أن يدرك التلميذ/ة التلميذة بأن تطبيق استمارة الفحص هي عبارة عن مواقف سويا فيها اللعبة. من المهم أيضا قراءة الأجزاء الموجودة داخل المربعات بصوت عال وواضح.
صباح الخير. أنا اسمي .................. وأعيش في ............... أود أن أحدث قليلا عن نفسي. (تكلم عن أطفالي إذا كان لديك أطفال، الرياضة المفضلة، الحيوانات،.....)
1. هل يمكن أن تحدثني قليلا عن نفسك وعائلك؟ (التلخيص الإجابة، إذا تردد الطالب إسأله السؤال رقم 2، ولكن إذا تجاوب مع حوارك وكان مرتاح فواصل مع الموافقة الفظية.
2. ماذا تحب أن تفعل عندما لا تكون في المدرسة.

المواصفة الفظية:
كل للطلاب ما يلي:
- دعى أقول لك لماذا نحن هنا. أنا أعمل في وزارة التربية والتعليم وحن إلى هنا لأعرف كيف تتعلمون القراءة. وانت تم اختيارك معي بدون قصد وبشكل عشوائي.
- هل ممكن أن تساعدني في هذا العمل؟ إذا كنت لا تريد المشاركة فمن حقك أن ترفض.
- الان ستعمل معا لعبة القراءة. سوف أطلب منك أن تقرأ بصوت عال احترافي. وكلمات، وقصة قصيرة.
- عندما تقرأ أنت. سأستخدم إذا ساء التوقيت هذه، لأعرف المدة التي قرأتها فيها.
- مرة أخرى هذه لعبة و ليس اختيارا ولا علاقة له بدرجاتك في المدرسة.
- هل لأنه أسام غلت عنف أحد أن هذه أجابتك.
- مرة أخرى، من حقك رفض المشاركة في اللعبة، ولك الحق في ترك أي سؤال لا تريد الإجابة عليه.
- هل لديك أي أسئلة؟ هل يمكننا أن نبدأ؟

لا
نعم

تمت الموافقة من التلميذ/ة التلميذة في المشاركة
(إذا امتع التلميذ/ة التلميذة عن المشاركة أشتك الطالب ثم أوقف التقييم وأطلب فحص تزميد أخر)

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</table>

اضغط على الزر (حفظ البيانات) الموجود أسفل الصفحة للانتقال للسؤال التالي.
جزء (1) معرفة أسماء الحروف

أمثلة:

- 10 (تشطب)
- 20 (تشطب)
- 30 (تشطب)
- 40 (تشطب)
- 50 (تشطب)
- 60 (تشطب)
- 70 (تشطب)
- 80 (تشطب)
- 90 (تشطب)
- 100 (تشطب)

لقد قمت بمجهود طيب، انتقل للتمرين التالي.
جـزـيـة (2) الوعي الصوتي

هـذـا الـجـزـء لا يـعـتـد عـلـى التوقيـت. لا يوجد نمـوذج أو ورقة للـتـالـب في هـذـا التـمـريـن، وـبـدـلاً مـن ذـلـك فإن البـاحـث سيقوم بالـقراءـة بـصوـت عـال للـتـالـب.

إقرأ مرتين بصوت عال للتعليمات، واتباعًا من التحفيز على التعرف على الصوت الأول في الكلمات.

هل فهمت ما هو مطلوب منك؟

قم بقراءة التوجيهات ثم إقرأ الكلمات المحددة، إذا لم تجب التثبيت/التتميزة بعد 3 ثوانٍ ضع علامة (لم يستجب) ثم انطلق الكلمة الثانية بصوت واضح ولكن لا تركز بالنطق على الصوت الأول

تنبية: إذا لم يستجب التثبيت/التتميزة على الإجابة أو أخطأ في الخمس الأحرف الأولى فقول له شكرًا، وانقر على زر (حفظ البيانات) لتنمك من الانتقال للتمرين الثاني.

<table>
<thead>
<tr>
<th>ما هو الصوت الأول في الكلمة؟</th>
<th>___________</th>
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<tr>
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</table>

لم قدمت بمجهود طيب، انتقل للتمرين التالي.
جزء (3) معرفة أصوات الحروف

تم التلميذة التامدة ورقة الأحرف الموجودة في الصفحة من كراس الطالب وقل له:

هذه الصفحة ملئة بالأحرف الأبجديّة. أريد أن ت دقِص صوت كل حرف وليس اسم الحرف. مثلًا: صوت هذا الحرف (أشر إلى الحرف ل) هو "ل".

الآن حاول أن تصوت هذا الحرف (أشر إلى الحرف س):
- إذا استطعت التلميذة/التلميذة الإجابة بالشكل الصحيح فقل له أحسن ، صوت هذا الحرف هو "". (إذا لم تستطع التلميذة/التلميذة الإجابة بالشكل الصحيح فقل له صوت هذا الحرف هو "".
- لتحول مرة أخرى، ما هو صوت حرف الراي (أشر إلى الحرف ب).

إذا استطعت التلميذة/التلميذة عن الإجابة بالشكل الصحيح فقل له أحسن ، صوت هذا الحرف هو "ب ب ب". 
- إذا لم تستطع التلميذة/التلميذة بالإجابة بالشكل الصحيح فقل له صوت هذا الحرف هو "ب ب ب".

هل فهمت ما الطالب؟

عندما أقول إبدأ، إذا أنت بنطق أصوات الحروف قراءة جيدة وسرعة، إبدأ من هنا ثم وصل (أشر إلى الحرف الأول في السطر/اللّي) بعد المالية ومراقبة عليه حتى نهاية. إذا لا تستطيع معرفة صوت الحروف فسأقول لك، مالم ستطعم التلميذة واستمع لما سأقول.

تم هذا النطق على الزر (إبدأ) عندما بدأ التلميذ/التلميذة بنطق أول حرف، تتابع التلميذة التلميذة، فإذا أخطأ التلميذة/التلميذة بنطق صوت الحرف فقد بالنظر على الكلمة مرة واحدة. احسب التلميذ التلميذ الذي يقوم ببناء التلميذة التلميذة على أن يكون النطق الصحيح في حال كنت قد استجبته خطا فاقتصر على الكلمة مرة واحدة فقط. يتمُّ البدء إذا ارتكب التلميذة التلميذة في خطاً ثانيةً.

3. غالبًا ما تكون أيضًا التلميذة التلميذة مطمئنة عند أن يبتدأ السطر التلميذة التلميذة من جديد في السطر التالي. إن النظام التلميذة التلميذة، متعلقة بتوجيهات التلميذة التلميذة، غالبًا ما تكون مهيئة عند أن يبتدأ السطر التلميذة التلميذة من جديد في السطر التالي. إن النظام التلميذة التلميذة، متعلقة بتوجيهات التلميذة التلميذة، غالبًا ما تكون مهيئة.

بعد 60 ثانية سيتوقف التلميذ والثاني وستكون هناك علامة. عند آخر حرف نطة التلميذة التلميذة، حينها أطلق من التلميذة التلميذة. يتمُّ توقف، إذا بالضغط على الزر (حفظ البيانات) حتى يتمكن من الانتقال للتمرين الثاني. إذا لم يستطيع التلميذة التلميذة بنطق أصوات الأحرف من حروف السطر الأول، فعله "شكا لنا"، وقم بالنظر على الزر (حفظ البيانات).

امثلة: لـ أ

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١٠٠/١٠ (شطب)
١٠/٢٠ (شطب)
٥/٣٠ (شطب)
٤٠/٤٠ (شطب)
٥٠/٥٠ (شطب)
٦٠/٦٠ (شطب)
٧٠/٧٠ (شطب)
٨٠/٨٠ (شطب)
٩٠/٩٠ (شطب)
١٠٠/١٠٠ (شطب)

جزء (4) قراءة الكلمات الملائفة

تم التلميذة التامدة ورقة الكلمات الموجودة في الصفحة الرابعة من النموذج الخاص التلميذة/التلميذة، وقل له:

لقد قمت بمجهود طلب، انتقل للتمرين التالي.

حفظ البيانات.
لقد قمت بمجهود طيب، انتقل للتمرين التالي

حافظ البيانات

أمثلة: أبي الله شكا

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<td>أَقْصَى</td>
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<td>سُورَ</td>
<td>طَالِبَة</td>
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<td>دَرْسَ</td>
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</table>
زجعة (5) قراءة الكلمات الغير مألوفة

قد قمت بمجهود طيب، انتقل للتمرين التالي.
الجزء (6-ب) فهم المقراء

حبيTEMما توقف التدريس/التمتدز من القراءة سوف تظهر الأسئلة أصل

الصفحة، وعندما فم يسبح الورقة المكتوب عليها الصفحة من إمام التدى/التمتدز/التمتدز. فم بTUREت السؤال الأول في الأسئلة.

أعت التدى/التمتدز 15 ثانية على الأكثر للإجابة عن كل

سول. ضع إشارة على إجابة السول ثم إنتل للسول الذي يليه.

التمدد/التمتدز قطعة القراءة الموجودة في آخر صفحة من نموذج الطالب وقل له:

في هذا التمرين عليك أن تقرأ هذه الفقرة القصيرة بصوت عال وبروعة وحاول ألا تخطئ، وعندما تنتهي من قراءتها سوف أستك به الأسئلة عنها.

هل فهمت المطلوب؟ عندما أقول أبدا، أقرأ الفقرة وسوف السهم الهدف.

هل أنت مستعد؟ أبدا.

تم بالضغط على الزر (أبدا التسجيل) عندما بدأ التدى/التمتدز بقراءة أول كلمة، تابع التدى/التمتدز، فإذا أخطأ التدى/التمتدز في نطق الكلمة فقم بالتمرير على الكلمة مرة واحدة. أصعب التصحيح الذي يقوم به التدى/التمتدز على أنه صحيح وفي حال كنت قد احسسته خطأ فائر على الحرف مرة واحدة فقط. التدمز الهدف إلا عندما تكون استجابة التدى/التمتدز على النحو التالي: إذا تردد التدى/التمتدز مدة 3 ثوان، ففي هذه حالة فم بقراءة الكلمة ثم أشر إلى الكلمة اللاحقة واطلب منه أن يستمر في قراءة الكلمات وأحسب هذه الكلمة التي لم تقرأها على أنها غير صحيحة (بالنحور مرة على الكلمة) إذا أكمل الطالب قراءة الفقرة في أقل من دقيقة فائر على الزر (انتهاء) ثم حفظ البيانات (للانتقال التلقائي).

بعد 60 ثانية سيتوقف التمرين وستكون هناك علامة [ ] عند آخر كلمة قرأها التدى/التمتدز. حينها طلب من التدى/التمتدز أن يتوقف. فم بالضغط على الزر (حفظ البيانات) حتى تتمكن من الانتقال للتمرين التالي.

نتيجة: إذا أخطأ الطالب في جميع كلامات السطر الأول فقل له "شكا" وانتقل للتمرين التالي.

الآن سوف أسأل عنه أسئلة عن الفقرة التي قرأتها، حاول الإجابة على الأسئلة بأفضل ما تستطيع.

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<thead>
<tr>
<th>الأصالة</th>
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<td>خرج الراعي مع أغنامه و وكلبه إلى المزاعي</td>
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<td>شعر الخروف الصغير بالحيل فترك القطيع. وذهب إلى النهر نجد هناك</td>
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<td>فكان له اللحن: ها قد وجدتなかなか من أسنا إلى قبل عام</td>
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<td>قال الخروف: عدبنا يا سيدي ولكن عمري ستة أشهر!!</td>
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<td>قال الذئب: لن تلغوا حليك هذا. قد قررت أكلك.</td>
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<td>فقال الخروف: &quot;إلى اسمع الراعي والكلب قادمين &quot; فهرب الذئب.</td>
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</table>

لقد ذكرت بمجهود طيب، انتقل للتمرين التالي.
جزء (7) فهم المроссو

هذا التمرين لا يعتمد على التوقيت. لا يوجد نموذج أو ورقة للتمرين/التمييزة. في هذا التمرين يقوم الفاحص بقراءة النص التالي مرة واحدة فقط بصوت عالٍ ويتيح أي بمعدل كلمة واحدة في الثانية. عقب الانتهاء من قراءة النص، اعط التمرين/التمييزة 15 ثانية على الأكثر للاجابة عن كل سؤال.

كل التمرين/التمييز:

لا يوجد نموذج أو ورقة، بل يقومون بقراءة النص في وقت واحد. لا يوجد نموذج أو ورقة.

سوف أقرأ عليك قصة قصيرة وانت تسمعي، بعد ذلك سأسألك بعض الأسئلة عن القصة وانت تجيب. هل فهمت المطور؟ مستعد

خرجت سعاد من منزلها إلى البحر حاملة جرة الماء، وفي طر يقفها للبيز رأت عجوزًا تبتكي بجانب جرّتها المكسورة. تذكرت سعاد ما قالت لها أمها: "عليك يا بنتي بمساعدات الأخرين عندما يحتاجون للمساعدة"، حينها حاولت سعاد إصلاح الجرة. فقالت لها العجوز:

لاقد حاولت إصلاحها ولكن دون فائدة. أعطت سعاد جرّتها للعجوز وملأتها بالماء. فرحت العجوز ودعت لسعاد.

الجواب:

أين ذهبت سعاد؟

"إلى البحر"

لا إجابة

لا إجابة

لا إجابة

لا إجابة

"لا إجابة"

"لا إجابة"

"لا إجابة"

"لا إجابة"

ماذا فعلت سعاد؟

"لم تمسك الماء"?

"لم تمسك الماء"

"لم تمسك الماء"

"لم تمسك الماء"

"لم تمسك الماء"

"لم تمسك الماء"

ماذا فعلت سعاد؟

"تم إصلاح الجرة" المكسورة؟

"تم إصلاح الجرة" المكسورة?

"تم إصلاح الجرة" المكسورة?

"تم إصلاح الجرة" المكسورة?

"تم إصلاح الجرة" المكسورة?

"تم إصلاح الجرة" المكسورة؟

ماذا فعلت العجوز بعد ان اعطتها سعاد الجرّة?

"فرحت ودعت لسعاد".

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جزء (8) الإملاء

هذا التمرين لا يعتمد على التوقيت. اطلب من التلميذ/التميذة أن يكتب الجملة في صفحة الإملاء. سوف أقرأ لك بصوت عال جملة قصيرة ثم اطلب منك كتابتها. رجاء الاستماع بحرص. سأقرأ لك الجملة كاملاً في المرة الأولى ثم ابدأ بكتابتها وساعد قرائها لك على إجزاء. ثم سأعيد قراءة الجملة كاملاً للتأكد مما قمت بكتابته. هل فهمت المطلوب؟

إقرأ الجملة التالية بصوت عال مرة واحدة (بمعزل كلمة في الثانية الواحدة). ثم اعط التلميذ/التميذة قلم رصاص واطلب منه البدء بالكتابة. ثم أعد قراءة الجملة مرة ثانية وربط الكل (تلميذ/تميذ + كلمات "الطالب يكتب الدرس"). توقف 10 ثوان بعد قراءة كل تركيب تسمح للتميذ/التميذة بالكتابة. أعد قراءة الجملة مرة ثالثة في أثناء كتابة التلميذ/التميذة لها واطヘル 15 ثانية لإنهاء الكتابة. لا تقرأ أكثر من ثلاث مرات.

<table>
<thead>
<tr>
<th>المرحلة/التميذة التلميذية: حروف</th>
<th>كلمات</th>
<th>مسافة</th>
</tr>
</thead>
<tbody>
<tr>
<td>لا إجابة</td>
<td>صحيح</td>
<td>غير صحيح</td>
</tr>
<tr>
<td>6/</td>
<td>الطالب</td>
<td>1</td>
</tr>
<tr>
<td>4/</td>
<td>يكتب</td>
<td>2</td>
</tr>
<tr>
<td>5/</td>
<td>الدرس</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>عدد المسافات بين الحروف</th>
<th>الكتابة بالطريقة الصحيحة (من اليمين إلى اليسار)</th>
</tr>
</thead>
<tbody>
<tr>
<td>لا إجابة</td>
<td>غير صحيح</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
لقد قمت بجهود طيبة، انتقل للتمرين التالي.
حفظ البيانات