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*EdData II*

# Education Data for Decision Making (EdData II):

## Iraq Education Surveys— MAHARAT

Analysis of Student Performance in Reading and Mathematics, Pedagogic Practice, and School Management



**EdData II Technical and Managerial Assistance, Task Number 14**  
**Contract Number AID-267-BC-11-00001**  
**Strategic Objective 3**  
**October 4, 2012**

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

# Education Data for Decision Making (EdData II): Iraq Education Surveys— MAHARAT

## Analysis of Student Performance in Reading and Mathematics, Pedagogic Practice, and School Management

EdData II  
Task Order No. 14

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RTI International is a trade name of Research Triangle Institute.

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



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# Abbreviations

CE	Cambridge Education
COR	Contracting Officer’s Representative
DOE	Directorate of Education
EFA	Education for All
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
GER	gross enrollment ratio
HDR	Human Development Report
IEMCA	Iraq Education Management Capacity Assessment
IMF	International Monetary Fund
ISTC	In-service Training Center
MAHARAT	Arabic word for “skills” (title of EdData II Task Order 14)
MOED	Ministry of Education
MSA	Modern Standard Arabic
NER	net enrollment ratio
PTA	parent-teacher association
RTI	RTI International (trade name of Research Triangle Institute)
SO	Strategic Objective
SSME	Snapshot of School Management Effectiveness survey
TIMSS	Trends in International Mathematics and Science Study
TO	Task Order
TTI	Teacher Training Institute
UN	United Nations
UNESCO	United Nations Educational, Scientific, and Cultural Organization
US	United States
USAID	U.S. Agency for International Development

# Acknowledgments

The authors wish to acknowledge the important contributions of the numerous people that made this study possible. Rodeina Abdel Fattah, Muhammad Helmi, and Stefanie Kendall of USAID/Iraq provided valuable guidance and support throughout the preparation and implementation of this study. Many departments and staff throughout the Ministry of Education also made important contributions to developing and implementing this study and helped assure that the instruments and methodologies were appropriately aligned to the Iraqi context. In particular, we wish to thank Dr. Nihad Al-Juboori, Deputy Minister (Scientific Affairs), and Ms. Hana Ahmed Ghazi, Director General (Finance), from the Ministry of Education for their support. The MAHARAT team in Baghdad, Alaa Waheed, Dhuha Al Musawi, and Qutaiba Sabti, provided invaluable support throughout the study in liaising with the Ministry of Education and managing the implementation of training workshops and field activities. Field data collection and data entry were only possible thanks to Ali Taha, Adnan Al-Harazi, and the fine staff of Development Cooperation International (DCI) Iraq and Prodigy Systems. Additionally, we wish to acknowledge and thank the editors of this report, Ellen Lohr-Hinkel and Erin Newton, for their critical assistance in its completion. Most importantly, this work could not have succeeded without the cooperation and contributions of the Ministry of Education staff and the students, teachers, and principals included in the study, who, for obvious reasons, must remain anonymous.

# Executive Summary



## Education Background

Iraq's once strong and competitive public education system now suffers from the impact of sustained conflict over many years. Although rebuilding efforts are underway, there remain too few school buildings, and many that remain are in need of significant repair. Iraq's National Development Plan for 2010–2014 indicates that education funding is both insufficient and poorly allocated, with nearly 95% being spent on salaries and the remainder going toward capital investments.<sup>1</sup> This leaves little to no funding for improvements to the quality of learning, such as curriculum development and teacher training. Additionally, prior to this study, there was no research available on learning outcomes in the early grades.

## Purpose and Design of the Assessment

Assessments of student learning in the primary grades, such as the Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA), offer an opportunity to determine whether children are developing the fundamental skills upon which all other literacy and mathematical 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.

Of equal importance to understanding how well children have mastered foundational skills is an understanding of why certain schools succeed in teaching these foundational skills while others do not. The Snapshot of School Management Effectiveness (SSME) provides a multifaceted view of school and classroom characteristics traditionally associated with student performance.

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<sup>1</sup> *National Development Plan*, p. 116.

To gain insight into both student facility with foundational skills and to better understand characteristics among Iraqi schools associated with this performance, USAID/Iraq, in partnership with the Ministry of Education (MOED), contracted with RTI International under the Education Data for Decision Making (EdData II) project to conduct the SSME, including the EGRA and EGMA, in a sample of primary schools in Iraq. The hope is that evidence-based information resulting from the survey can inform future education policy decisions, as needed.

The instruments used in this project—Iraq Education Surveys-MAHARAT—were adapted specifically for the Iraqi context during an adaptation workshop with the MOED. RTI’s education specialists worked together with local Iraqi reading, math, and primary school experts and officials to design abbreviated versions of the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA). In addition to administering individual oral assessments of students, RTI and its local partner DCI sent research teams to interview principals and teachers, conduct inventories of school and classroom resources, and observe reading and math lessons as part of the SSME survey.

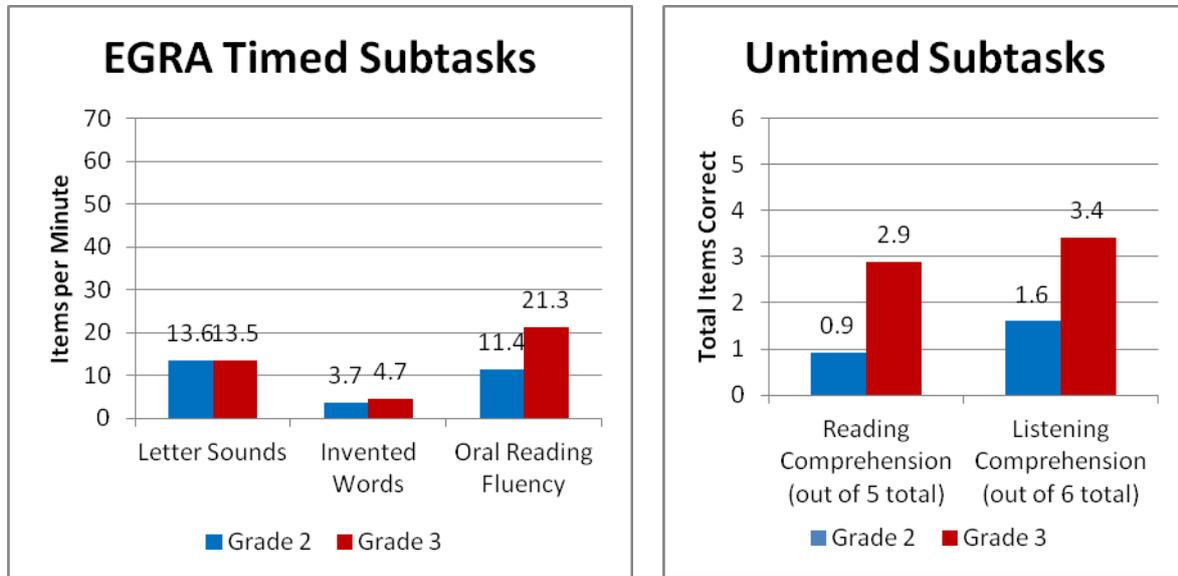
After a week-long training workshop in March 2012, research teams, composed of DCI staff and contractors as well as MOED staff members, visited a total of 54 public primary schools across Iraq. In each school, a grade 2 and a grade 3 teacher was randomly selected, and 10 students from each of these classes were randomly selected to take the EGRA and EGMA and to be interviewed about their experience with school. A total of 1,153 students were selected for participation in the assessments and interview. The selected teachers were interviewed, as was the principal of the school, and a researcher observed the selected grade 2 teacher teach a reading lesson and a math lesson. Researchers also took inventory of the school grounds and the selected classrooms. Data collection was completed at the beginning of May 2012.

## **How Well Are Students Learning to Read?**

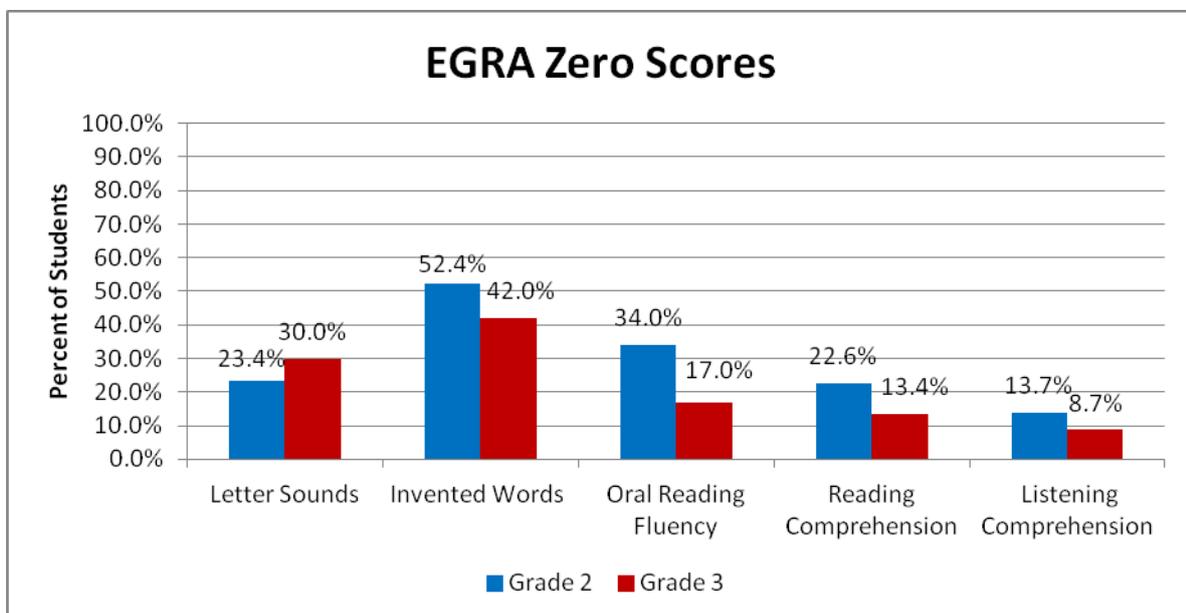
The EGRA in Iraq, which was administered orally to individual students in Modern Standard Arabic (MSA), consisted of five subtasks: (1) letter-sound knowledge, (2) invented word decoding, (3) connected text oral reading fluency, (4) reading comprehension, and (5) listening comprehension. Letter-sound knowledge and the ability to read unfamiliar single-syllable words are foundational skills needed for fluent reading and comprehension. All subtasks except for reading comprehension and listening comprehension were timed. The time limit made it possible to assess whether students had achieved a desired level of automaticity in these skill areas. Timed subtasks were scored as correct letters per minute (clpm) or correct words per minute (cwpm), while untimed tasks were scored as total items correct. The reading comprehension subtask totaled 5 questions and the listening comprehension subtask totaled 6 questions.

The figures below present EGRA scores by grade. The scores for the first three subtasks (letter sound knowledge, invented word decoding, and oral reading fluency) represent the number of correct items per minute. The scores for the last two subtasks represent the total number of correct items. The graph depictions of the scores show

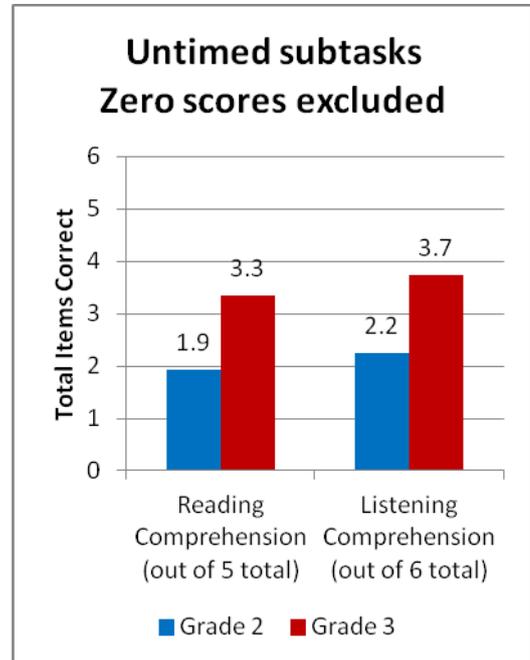
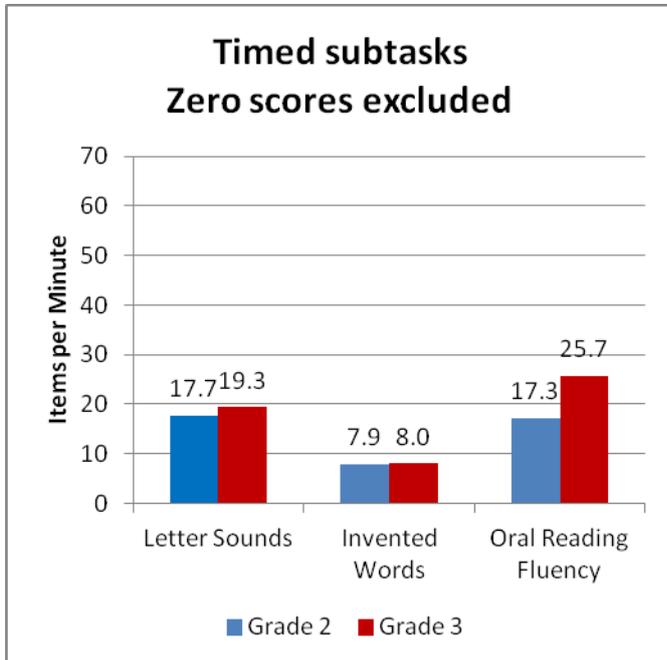
grade progression from grade 2 to grade 3, except on the letter sounds subtask. For the oral reading fluency task, students were asked to read a short narrative story as quickly and accurately as they could. In grade 2, for example, students were able to read 11.4 words per minute, on average. By grade 3 they were able to read nearly 21.3 words per minute.



The next figure presents the percentage of students with zero scores, by grade and subtask. Students who were unable to perform a single item on a subtask received a zero score. Thus, for example, in grade 2, over one third of students assessed could not read a single word in the oral reading fluency subtask. In grade 3, 17% of students received zero scores on this subtask. Students struggled the most with the invented words subtask, with over half of grade 2 students unable to decode a single invented word.

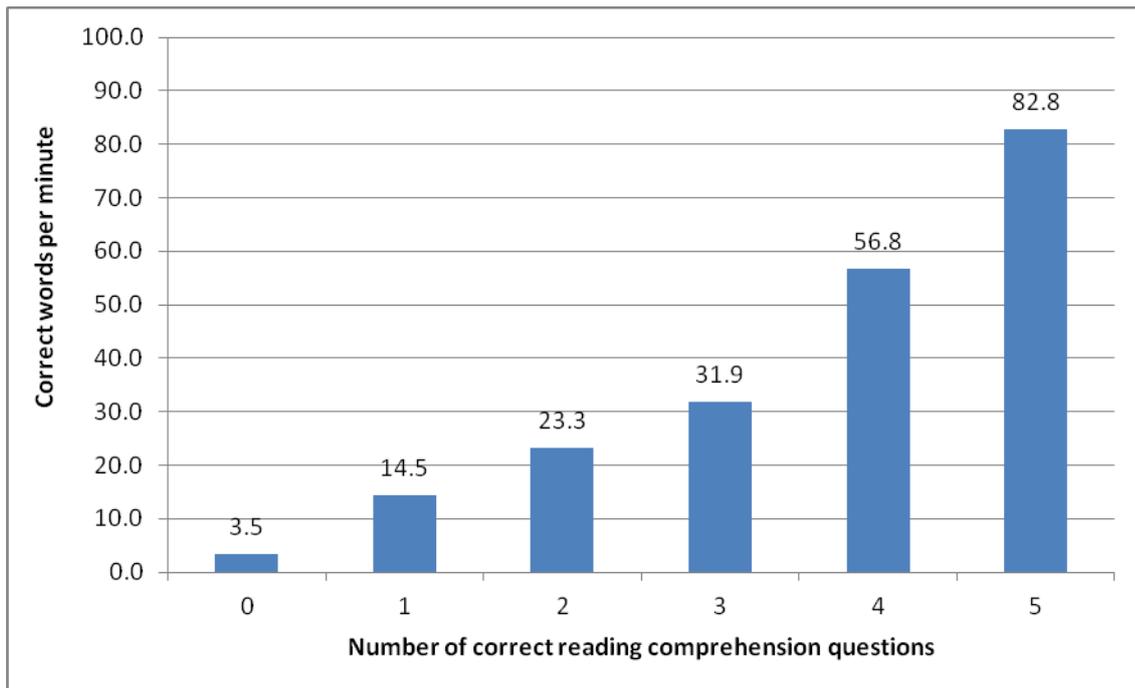


Because zero scores tend to bring total averages down, it is also useful to consider the scores of students who are able to correctly perform at least one item on a subtask. Thus, the next pair of graphs depict EGRA scores for these students (i.e., zero scores have been removed). Again, looking at the oral reading fluency subtask, we can see that students who could read at least one word scored 17.3 correct words per minute in grade 2 (compared with 11.4 when zero scores are included).



Research has shown that readers must read with a minimum speed in order to understand what they have read. The relationship between reading fluency and comprehension is clearly shown in the figure below. Students who were unable to answer a single comprehension question read at an average speed of fewer than 4 correct words per minute, and those able to answer all five questions correctly could read 82.8 correct words per minute on average.

## Relationship between reading fluency and comprehension



It is generally accepted that when children are reading with comprehension, they can correctly answer 80% or more of their reading comprehension questions. Iraqi students who were able to answer 4 or more of the 5 comprehension questions correctly were reading at an average fluency rate of 56.8 correct words per minute. As reported above, the *average* reading speeds recorded were well below this rate and, therefore, too slow to permit students to be reading with true comprehension.

Overall, these results reveal that by the end of grade 3, the majority of students assessed had not yet acquired sufficient foundational skills to read fluently with comprehension.

### How Well Are Students Learning to Do Basic Mathematics?

Students' understanding of foundational math skills was orally evaluated using the EGMA, which consists of six subtasks: (1) number identification, (2) quantity discrimination (that is, larger vs. smaller values), (3) missing number (number patterns), (4) addition and subtraction (level 1), (5) addition and subtraction (level 2), and (6) word problems. The level 1 addition and subtraction problems were *procedural* in nature<sup>2</sup> and involved single- and double-digit problems with sums or differences below 20. Students were asked to solve the problems without using paper

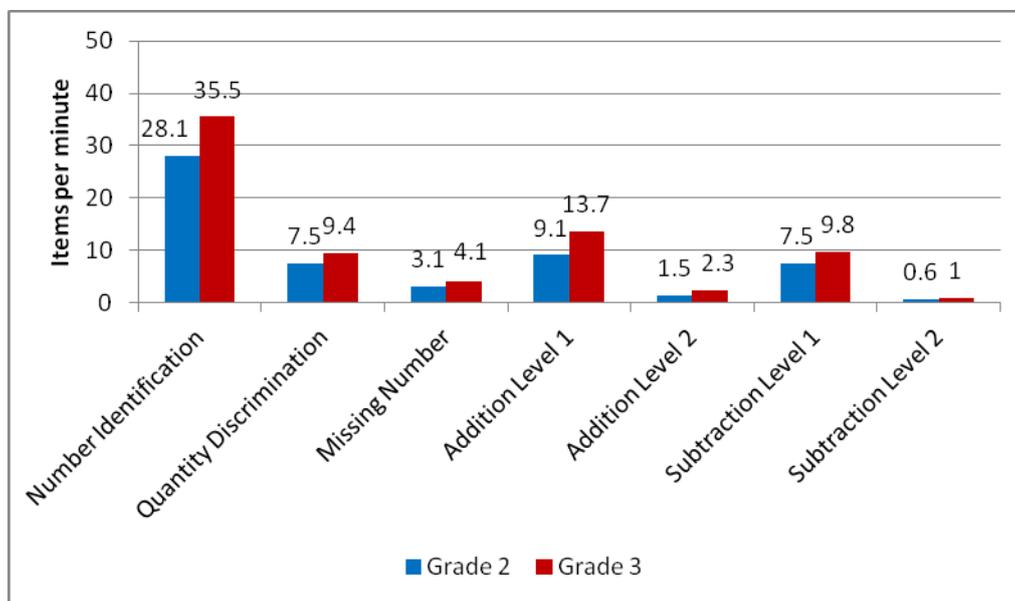
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<sup>2</sup> In learning mathematics, *procedural skills* refer to the ability to apply a simple rule or standard algorithm to solve a problem. *Conceptual understanding* refers to a broader grasp of mathematical ideas. For the EGMA in Iraq, the level 2 problems were more conceptual than level 1 problems because the students had to understand what they were doing (these items did not represent memorized facts) and also apply level 1 skills. Level 2 problems were not purely conceptual, but were more conceptual than level 1, especially so for grade 2 and grade 3 students.

and pencil, and then give their answer. Level 2 addition and subtraction problems were more difficult, and required students to grasp mathematical *concepts* such as the bridging of tens. For these problems, students were permitted to use a pencil and paper to work out the solution. For each subtask, except for the word problems, students were asked to complete as many items as they could within a time limit. Both accuracy (number of correct items from items attempted) and automaticity (number of correct responses per minute) scores were reported. As with EGRA, by timing how quickly students perform these tasks, EGMA evaluates whether students have achieved a desired level of automaticity in these skill areas.

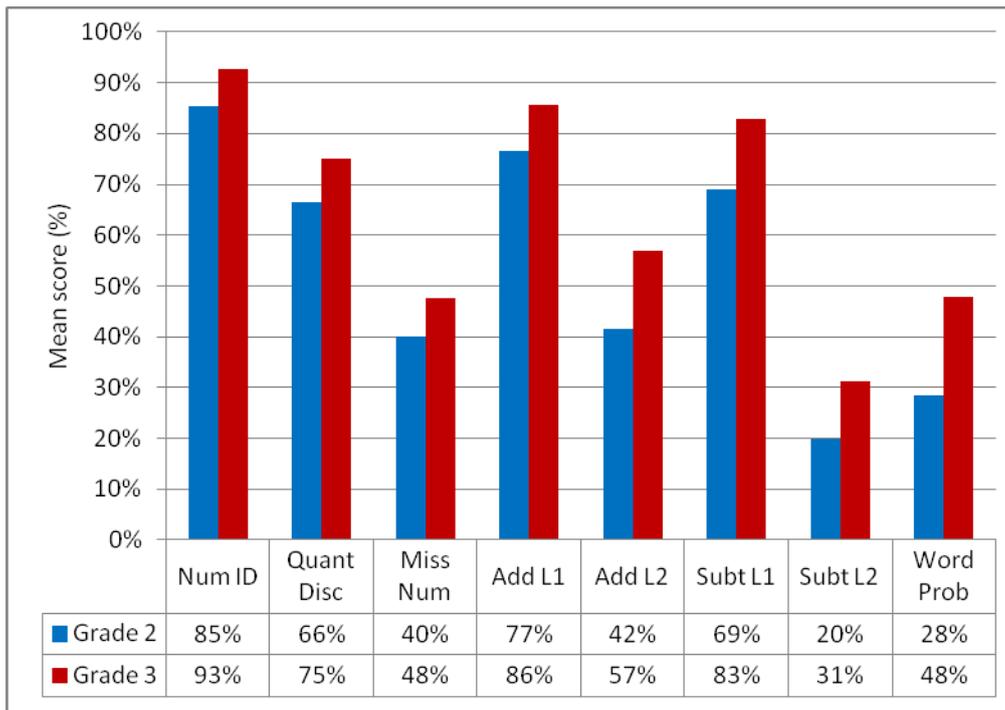
The figure below presents average EGMA scores per minute for each grade. The final subtask, not depicted in the graph, was a word problem subtask that was not timed. Students in grade 2 were able to name 28.1 numbers per minute and grade 3 students could name 35.5. Students were able to correctly answer 9.1 level 1 addition problems per minute in grade 2, and 13.7 problems in grade 3.

**Average EGMA scores on timed subtasks, by grade**



The next figure shows the percentage of correct responses out of those attempted. As with the EGRA, the graph shows progression from grade 2 to grade 3. This progression was greatest on the addition and subtraction level 2 tasks. The results create the general impression that the students were more successful on those subtasks that assessed procedural knowledge: number identification and addition and subtraction level 1. By contrast, the students performed less well on the subtasks that involved more conceptual understanding, namely the missing number, addition and subtraction level 2, and the word problem tasks.

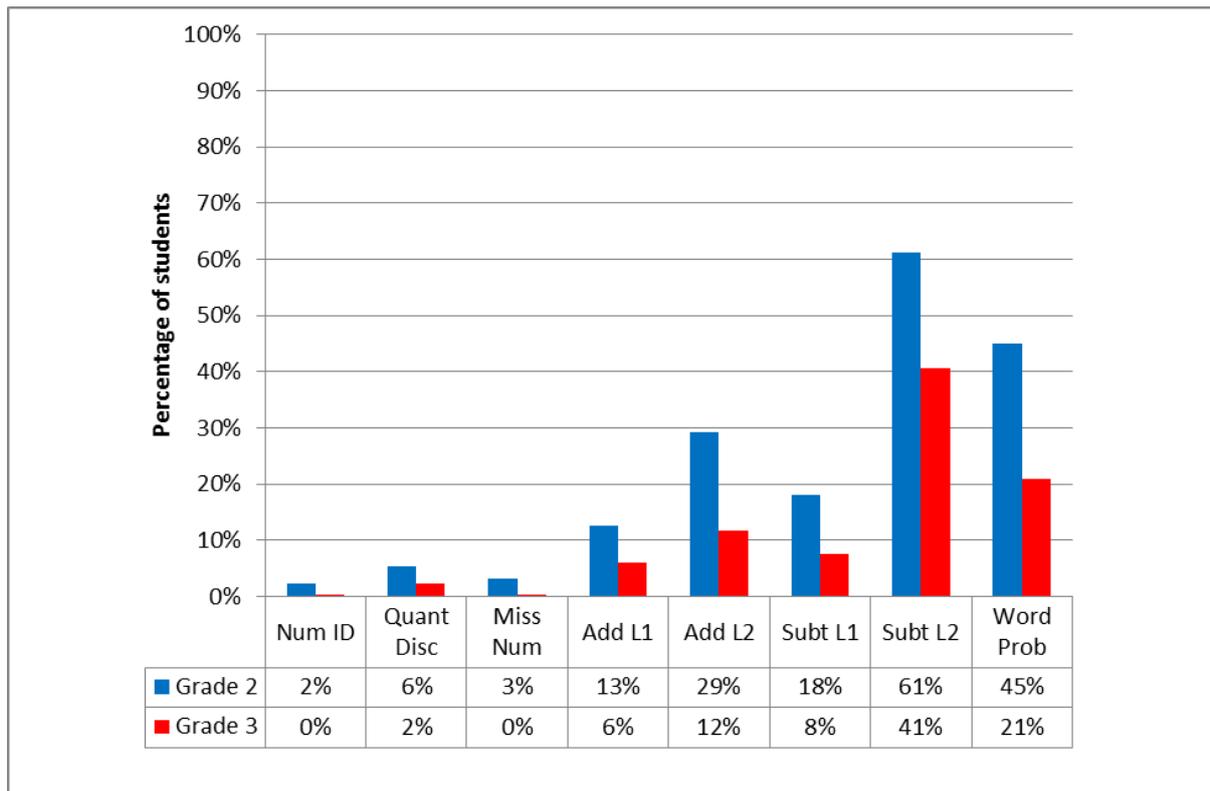
## Percentage of correct responses, by EGMA subtask



As with the EGRA, it is also useful to consider the percentage of students receiving zero scores on the EGMA, as depicted in the figure below. As is shown, 13% of grade 2 students were not able to answer a single addition level 1 problem correctly, and 18% of grade 2 students were unable to answer a single subtraction level 1 problem correctly. These subtasks consisted of basic (procedural) addition and subtraction problems.

The percentage of zero scores increased on the more conceptual subtasks, with 29% of grade 2 students and 12% of grade 3 students unable to answer a single addition level 2 problem correctly. On the subtraction level 2 subtask, a majority (61%) of grade 2 students and 41% of grade 3 students were unable to answer a single problem correctly. Similarly, in the case of the more conceptual word problem subtask, a large percentage of the grade 2 (45%) and a fair percentage of the grade 3 students (21%) were unable to answer a single problem correctly.

## EGMA zero scores, by grade



These EGMA results in Iraq suggest that memorization plays a large role in the way that children know and learn mathematics. This suggestion is supported by the clear trend in the results showing students doing better on the items that relied on procedural knowledge—knowledge that can also be memorized—and markedly less well on the tasks and items that required both the understanding and the application of what should be procedural (rather than memorized) knowledge.

### How Well Are Schools Being Managed?

The SSME findings revealed areas of strength as well as areas needing improvement in Iraqi schools. Despite the need for infrastructure repairs in many schools, the vast majority of principals and teachers said that they and their students are safe. Teachers and students do not suffer from a shortage of textbooks and exercise books, and although the school year is short and the necessity of shift schools serves to compress the time available for learning, little of that time is spent off-task on non-instructional activities.

Still, infrastructure problems are a concern, as over three-quarters of schools visited are in need of repair, with researchers observing broken windows in classrooms, damaged walls and roofs, and exposed wiring. More than half of schools visited had no working electricity, and over a quarter had no functioning water source. Toilet availability and cleanliness is another area in need of improvement.

Interviews with teachers and observations of lessons revealed a number of interesting findings. Half of teachers reported that they had received no pre-service training in

specifically how to teach reading and math. Possibly related to this, researchers found that although most teachers used various types of evaluation approaches to measure their students' academic progress, fewer than 10% of teachers reported using the results of these assessments to adapt their teaching or plan lesson activities. These findings may suggest a lack of understanding in how to make use of various methods of student evaluation, a lack of flexibility or freedom in how teachers make use of or follow the curriculum, or a combination of factors.

Teacher feedback is an essential part of teaching and student learning. By looking at students' exercise books, it was possible to measure the frequency with which teachers had marked or commented on students' work. Examination of the exercise books revealed a wide range in page coverage. Most contained at least some marks and comments by the teacher but only a minority of exercise books had marks and comments on all pages. Those that did were correlated with stronger reading performance among students. Additionally, teacher responses to student mistakes during class can reveal teacher-student dynamics. The majority of students interviewed reported punitive, rather than constructive responses from their teachers when they answered a question incorrectly, with half reporting being hit by their teacher. Students rarely asked questions during lessons suggesting that students either lack the opportunity to ask questions or that they are reluctant to do so.

Classroom observations of reading lessons showed that the largest proportions of lesson time were spent on advanced reading activities, such as reading texts and writing, but very little time was spent on more basic reading skills, such as letter sounds and reading isolated words. This instructional emphasis would be appropriate if students had mastered these foundational skills, but as the EGRA results have shown, students are struggling in these areas.

Interestingly, the observations of math lessons revealed that relatively large amounts of lesson time were spent on the basic skills of number identification and reciting number words—skills that correspond to students' best performance on the EGMA (number identification). Additionally, teachers were observed to mix these basic elements of mathematics with higher level (more conceptual) concepts such as addition and subtraction with 2 or more digits, fractions, and multiplication. Less time was spent on single digit addition and subtraction—problems that students showed moderate ability to perform on the EGMA.

Reading practice at school and at home is another important factor that the SSME investigates. Significantly, only 13.5% of schools visited had a library, and just 4.6% of classrooms were observed to have any books available to students other than their textbooks. Students in the few schools that did have a library were stronger readers. Having books at home other than textbooks was also uncommon, as 71.3% of students said they had none, and over a third reported never reading to anyone at home nor being read to by a family member. However, despite this some students and their parents were managing to practice reading at home, and both having books to read and reading at home are linked to stronger performance on the EGRA. Not surprisingly, parental involvement in their children's learning is associated with better student performance. Almost all teachers said parents were at least somewhat

involved in their children's schoolwork (although only 35% of teachers reported being satisfied with parental involvement). Similarly, nearly all students said their parents were aware when they made a good grade, which was positively linked with reading performance.

Finally, several components of the SSME are designed to measure time spent on-task during the school day. The school year in Iraq is short compared to many countries, at 32 weeks. Taking into consideration average number of school closings, short school days due to the shift system or sharing of facilities, and time spent at assembly or break instead of in class, the average number of hours available for learning is calculated to be 544 hours in a year (3.6 hours per day for a double shift school, multiplied by 151 days). This falls far short of the 850-1,000 minimum instructional hours recommended by the World Bank and UNESCO through the Education for All (EFA) initiative.<sup>3</sup> Thus, although teachers are not wasting time off-task during the school day, the calendar places a limit on how much overall instruction they are able to provide to their students over the course of the year.

## Recommendations

Representatives from the MOED and Iraqi educators, together with researchers, worked together to develop several recommendations following detailed discussion of the study findings.

The study revealed room for improvement among teachers. The group recommended that teacher training (both pre-service and in-service) focus on the development of early grade-specific skills in teaching reading and mathematics and, in general, on developing a more child-centered pedagogy. In other words, teacher training needs to focus on developing both the subject content knowledge and the pedagogical content knowledge.

Additionally, the group recommended increasing the number of instructional hours per year. Although increasing the number of instructional hours per year is necessary, it is not sufficient—as much attention needs to be given to *what happens during these instructional hours* as to *providing these hours*.

Finally, the group recommended an increase in children's access to reading materials (in addition to textbooks), both at school and at home. This may necessitate a school library initiative, as well as a public awareness campaign to educate parents about their role in their children's education in general, and specifically about the importance of providing books for their children to read at home.

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<sup>3</sup> EFA Global Monitoring Report, 2005, 0. 149.

# 1. Background: Country and Education Context

Once considered a model in the region, Iraq's education sector has steadily deteriorated over recent decades as a result of successive conflicts. Rates of poverty, corruption, and unemployment are high, and none of the problems within any one sector can be accurately considered in isolation from a variety of interdependent factors. An International Monetary Fund (IMF) summary of Iraq's decline states that "[by] the 1970s, Iraq's oil resources had enabled the country to reach middle-income status, with a modern infrastructure and good education and healthcare systems. Since then, however, Iraq has suffered through three devastating wars, a long period of economic and financial mismanagement, and international sanctions imposed during the 1990s."<sup>4</sup>

Since the US troop withdrawal from Iraq at the end of 2011, the nation's delicate and newly formed coalition government has struggled to stand on its own.<sup>5</sup> Ongoing unrest has taken a significant toll on the nation's educational resources, from damaged or destroyed infrastructure and too few teachers to outdated curricular materials and families afraid to send their children to school. As of 2003, only 20% of school buildings were in sufficient condition and not needing major repair.<sup>6</sup> Since then, major reconstruction efforts have taken place, with varying degrees of success; and "shift" schools and schools sharing a building have become very common. Although both situations have positive aspects, they still represent less available time for student learning than would be the case with fully functioning capital infrastructure for each school that operates.<sup>7</sup>

Iraq's National Development Plan for 2010–2014 indicates that education funding is both insufficient and poorly allocated, with nearly 95% being spent on salaries and the remainder going toward capital investments.<sup>8</sup> This leaves little to no funding for improvements to the quality of learning, such as curriculum development and teacher training. The Plan goes on to state that

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<sup>4</sup> Excerpted from International Monetary Fund (IMF), Iraq, *Program Note* dated March 31, 2011, <http://www.imf.org/external/np/country/notes/iraq.htm>

<sup>5</sup> Anthony H. Cordesman and Sam Khazai, (2012). *Iraq after US withdrawal: US policy and the Iraqi search for security and stability*. Washington, DC: Center for Strategic and International Studies (CSIS)/Burke Chair in Strategy Series, p. 15.

<sup>6</sup> Republic of Iraq, Ministry of Planning, *National Development Plan for the Years 2010–2014*, p. 116.

<sup>7</sup> "Shift school" refers to a single school with a morning and an afternoon shift. There is one principal but some of the teachers and supporting staff may work during only one of the shifts. In other cases, a facility is shared by at least two separate schools. One school—with its own staff and students—uses the building in the morning, and a completely separate school uses the building in the afternoon. The morning school may be a primary school, while the afternoon school may be secondary.

<sup>8</sup> *National Development Plan*, p. 116.

*[d]espite the importance afforded [the education] sector by the Iraqi Constitution, development plans, and economic policies, there are indications of a lack of responsiveness. Data shows a significant deficit in school preparation, an increase in schools with double or triple daily sessions, mud-constructed schools not fit for use, and a decline in the rate of school enrollment, which stands at 85 percent for boys and 82 percent for girls.<sup>9</sup>*

According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the *youth* literacy rate among females remained relatively steady from 2000 to 2009, at about 80%, while the rate among males dropped about 4 percentage points from 89% to 84%. However, note our emphasis that these literacy rates are for youth (ages 15–24) and not for primary school aged children. While in some contexts the youth literacy rate may give some indication of early grade education outcomes, given the dramatic changes in Iraq over the past several years, assessments of literacy in secondary school may reveal little about the current state of reading instruction in the early grades. This is one reason it was considered useful to directly assess literacy in the early grades.

## 2. Evaluation Approach

### 2.1 Research Questions and Assessment Design

Under the USAID EdData II contract, in the fall of 2011, RTI International was awarded a Task Order (TO), Iraq Education Surveys–MAHARAT (the Arabic word for “skills”), which sought to improve education-related services and the quality of primary schools in Iraq. The contract consists of three education surveys to be administered in Iraq over a period of 14 months, starting on October 1, 2011, and continuing through December 1, 2012.

EdData II is a worldwide program funded by the United States Agency for International Development (USAID) to support the development and use of cost-efficient, survey-based information on key education issues. RTI International, a U.S. not-for-profit organization and lead implementer of the overall EdData II program, has developed several assessment instruments to help generate stakeholder interest and to inform education policy reform.

Most of the data collection processes and methods developed under EdData II are premised on a systems-theory approach to education, which requires examining the education organization as a whole, while being aware of how the parts impact each other. By understanding this dynamic and using this approach, it is possible to learn about one part of the system by examining another. For example, knowing how students are doing in reading or mathematics provides information about what teachers know and how they teach, as well as about the quality of the curriculum.

Working in close collaboration with the Iraqi Ministry of Education (MOED), RTI, therefore, used a set of survey instruments across three tasks that will provide

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<sup>9</sup> Ibid., p. 23.

information on the essential components of the Iraqi education system. Task 1 of MAHARAT included administering the Snapshot of School Management Effectiveness (SSME), a package of survey instruments that included abbreviated versions of the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA) (see *Annex A* for the EGRA and EGMA instruments used in Iraq), which assessed school management practices and student outcomes in the primary grades. The MOED identified individuals from its staff to be trained and then to serve as assessors and supervisors for the SSME. Task 2 involved an assessment of teacher training institutes in Iraq. Task 3 was an Iraq Education Management Capacity Assessment (IEMCA) that assessed the management capacity of the MOED. This report presents the findings for Task 1.

USAID/Iraq, in partnership with the MOED, was interested in gaining an accurate and evidence-based understanding of the state of primary education in Iraq. The stated goal of the SSME in Iraq was to contribute to creating a road map for improving school management efforts and reading and math instruction; improving reading and math student learning outcomes; and strengthening in-country MOED capacity for data collection, analysis, and dissemination. It is hoped that providing SSME research data to MOED staff, teachers, students, and communities will improve the quality of student learning, through capacity-building workshops and accountability. The assessments also will assist the MOED in identifying gaps in policy and skills.

With little recent assessment data available for students' early grade literacy and math skills and teacher performance, the SSME results, paired with results of a survey of the current teacher training institutes (TTIs), can add significant value to the policy deliberations and strategic plan implementation that is currently under way in Iraq. The data gained from the SSME assessments will directly support the MOED's interest in strengthening the in-service training centers and will inform next steps for developing teachers' capacity to provide quality education, as well as for updating and developing reading and math curriculum in the early grades. Furthermore, the experience of conducting an SSME study, as well as the findings it produces, can assist the MOED and increase its capacity as it furthers its plans for a school-based and national system of student assessments, as well as help education officials consider the options for how best to support improved student achievement in primary schools.

The first step to effect such education policy decisions is to develop a clear understanding of how students are learning to read and think mathematically in the primary grades. As noted earlier, the assessments implemented in Iraq were abbreviated versions of the EGRA and EGMA, which offer an opportunity to determine whether students are developing the fundamental skills upon which all other literacy and mathematical 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, growing international concern for learning outcomes, as opposed to attendance or completion rates, is evidenced by EGRA and EGMA having been adapted and used around the world, including EGRA implementations in over 50 countries.

In all EGRA and EGMA implementations, the assessments are administered individually and orally, typically using the students' native language to ensure that they understand the instructions for each task. In Iraq, the assessment designers ensured that the phrasing of the instructions used words and sentences that were common to both Modern Standard Arabic (MSA) and the vernacular Arabic. However, given that the language of instruction at school is MSA, the material that students read while taking the EGRA assessment was formulated in MSA. The instruments involved subtasks that required skills foundational to early grade reading and mathematics acquisition. Sections 2.2 and 2.3 below provide background on these instruments in general as well as detailed information on the specific skills assessed with the Iraq EGRA and EGMA instruments.

In addition to the EGRA and EGMA, and to paint a larger picture of the relationship between school management, teaching, and learning outcomes, the SSME consists of a set of interviews, checklists, and observations, the characteristics of which are further described in Section 2.4.

Findings from the assessment in Iraq based on these tools appear in Sections 3 and 4.

## 2.2 Overview of EGRA

### 2.2.1 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.<sup>10</sup> 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.<sup>11</sup>

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.

## **2.2.2 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 essential for students to become 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 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 indispensable 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.

## **2.2.3 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 (such as “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:

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<sup>10</sup> See E. Saiegh-Haddad. (2005). Correlates of reading fluency in Arabic: Diglossic and orthographic factors. *Reading and Writing: An Interdisciplinary Journal*, 18, 559–582. See also M. Taouk & M. Coltheart. (2004). The cognitive processes involved in learning to read in Arabic. *Reading and Writing: An Interdisciplinary Journal*, 17, 27–57.

<sup>11</sup> For example, see S. Abu-Rabia. (2007). The role of morphology and short vowelization in reading Arabic among normal and dyslexic readers in grades 3, 6, 9, and 12. *Journal of Psycholinguistic Research*, 36, 89–106; and G. Elbeheri, J. Everatt, A. Mahfoudhi, M. A. Al-Diyar, & N. Taibah. (2011). Orthographic processing and reading comprehension among Arabic speaking mainstream and LD children. *Dyslexia*, 17(2): 123–142. doi: 10.1002/dys.430

- **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.<sup>12</sup>
- **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 when there is no accompanying printed text. 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 often are introduced to Modern Standard Arabic (MSA) once they begin formal schooling. Thus, listening comprehension assesses children’s proficiency with MSA, rather than the vernacular dialect they listen to and speak at home.

EGRA measures each of the above abilities, or components, to assess the foundational reading skills. The skills are tested in individual subtasks and presented in order of increasing level of difficulty (letter name identification first, then invented word reading, etc.). Because the first few subtasks are easier, EGRA can therefore measure a range of reading abilities for beginning readers. The subtasks included in the EGRA Iraq instrument are described in Section 2.2.4 below.

#### 2.2.4 Structure and Content of the Final EGRA for Iraq

Administering the full EGRA instrument designed for Iraq took approximately 5 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 Modern Standard Arabic, the language of instruction in Iraqi public schools.

The EGRA consisted of the following nine sections, or subtasks:

1. *Letter sound knowledge* assessed students’ automaticity in sound production. This was a timed subtask, in which students were shown a chart containing 10 rows of 10 random letters. Students were asked to make the sound of as many letters as they could within one minute, yielding a score of correct letters per minute.
2. *Invented word decoding* assessed students’ skill at applying letter-sound correspondence rules to decode unfamiliar words. To ensure that students were sounding out the words, rather than recognizing them, a chart of 50 pronounceable made-up words that followed legal spelling patterns in Arabic

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<sup>12</sup> National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (National Institutes of Health Publication No. 00-4769). Washington, DC: U.S. Government Printing Office. See also C.A. Perfetti, (1992). The representation problem in reading acquisition. In P.B. Gough, L.C. Ehri, & R. Treiman (Eds.), *Reading acquisition* (pp. 145–174). Hillsdale, New Jersey, USA: Erlbaum.

was shown to students. Students were asked to sound out as many invented words as they could within one minute, yielding a score of correct words per minute (cwpm).

3. *Oral passage reading* assessed students' 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*: As described above, the ability to read passages fluently is considered a necessary component for reading comprehension. In this subtask, students were given an 82-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 students finished the passage, or the minute ended, the passage was removed. Students were orally asked five 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 5.
4. Also noted earlier, *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 students. Students 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.
5. A *student interview* was given orally to students 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 students' reading performance. For example, the students 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 assessor marks a box indicating that the subtask was discontinued because the child had no correct answers in the first line. Before administering the EGRA, assessors were required to read to students explicit information about the test and how it would be used. Pupils were asked to provide oral assent to participate in the assessment.

## **2.3 Overview of EGMA**

### **2.3.1 Why Test Early Grade Mathematics?**

A strong foundation in mathematics during the early grades is crucial for success in mathematics in the higher grades. Mathematics is a skill very much in demand in today's economy, as has been demonstrated by various economists. Most competitive

jobs require some level of mathematics skill. It has also been noted that the problem-solving skills and mental agility and flexibility that students develop through mathematics transfer to other areas of life and work. Furthermore, countries' rankings on mathematics skills are becoming a matter of political currency, because of international assessments such as Trends in International Mathematics and Science Study (TIMSS). Most countries' mathematics curricula for the early grades now coincide in terms of the skills students should have. For example, goals such as knowing and using number names, learning and understanding the values of numbers, knowing key symbols, and comparing and ordering sets of objects, are skills found in many curricula, including curricula in developing countries.

### 2.3.2 Purpose of EGMA

EGMA was designed to provide information about basic, foundational competencies that should typically be mastered in the very early grades to ensure success in more advanced mathematical skills. Without these basic skills, students will struggle or potentially drop out in later years. Subtasks selected for the standard EGMA instrument were drawn from extensive research on early mathematics learning and assessment and were constructed by a panel of experts on mathematics education and cognition. The conceptual framework for mathematical development is grounded in extensive research that has been conducted over the past 60 years.<sup>13</sup> To develop the EGMA protocol, developers systematically sampled early numeracy skills, particularly those underlying number sense. These abilities and skills are key in the progression toward the ability to solve more advanced problems and the acquisition of more advanced mathematics skills.<sup>14</sup>



<sup>13</sup> For example: (1) A. J. Baroody, M.-L. Lai, & K. S. Mix, (2006). The development of number and operation sense in early childhood. In O. Saracho & B. Spodek (Eds.), *Handbook of research on the education of young children* (pp. 187–221). Mahwah, New Jersey, USA: Erlbaum; (2) D. J. Chard, B. Clarke, S. Baker, J. Otterstedt, D. Braun, & R. Katz, (2005). Using measures of number sense to screen for difficulties in mathematics: Preliminary findings. *Assessment for Effective Intervention*, 30(2), 3–14; and (3) D. Clements & J. Samara, (2007). Early Childhood mathematics learning. In F.K. Lester, Jr. (Ed.), *Second handbook on mathematics teaching and learning* (pp.461–555). Charlotte, North Carolina, USA: Information Age.

<sup>14</sup> Examples include Baroody et al. (2006); Clements & Samara (2007); and A. Foegen, C. Jiban, & S. Deno, (2007). Progress monitoring measures in mathematics: A review of literature. *The Journal of Special Education*, 41(2), 121–139.

### 2.3.3 What EGMA Measures

A number of criteria were defined for subtasks to be included in the EGMA instrument, to support the goal of providing stakeholders, such as ministries of education, aid agencies, and local education officials, with the information essential to making informed changes in teacher education and support, curriculum development, and implementation. The subtask criteria are as follows:

- They represent skills that developing country and developed country curricula have determined should be acquired in early grades;
- They reflect those skills that are most predictive of future performance, according to available research and scientific advice;
- They represent a progression of skills that lead toward proficiency in mathematics;
- They target both conceptual and computational skills; and
- They represent skills and tasks that can be improved through instruction.

EGMA is an individually administered oral test that allows for the targeted skills to be assessed without being confounded by problems with language or writing that might otherwise impede performance. By administering the test orally, administrators can better ensure that students understand the instructions, which are provided in the familiar vernacular dialect that students speak outside of school.

### 2.3.4 The EGMA Instrument for Iraq

The EGMA designed for Iraq consisted of eight subtasks.

All items on the assessment were presented orally to students and all items were arranged in order of increasing difficulty for all subtasks. The assessment items included the following:

1. *Number identification* assessed students' knowledge and ability to identify written number symbols. Here, students orally identified printed number symbols presented in a grid, and students were asked to identify as many numbers as they could in 30 seconds, with their score being converted to give a per-minute rate. This subtask consisted of 20 one- to three-digit numbers arranged in order of increasing difficulty. Two scores were generated for this subtask: (1) the number of correct responses made per minute and (2) the percentage of correct responses for the items attempted in the time allocated.
2. *Quantity discrimination* assessed the students' ability to make judgments about differences in numbers by comparing quantities. Quantity discrimination in the early grades is a critical link to effective and efficient problem-solving strategies. For the Iraq EGMA, students were asked to compare single and double digit numbers. The assessors presented them with items that each contained two numbers. Students were then asked to identify the larger number in each pair (e.g., "Which one is bigger?"). The used number pairs ranged from a pair of single-digit numbers, to five pairs of two-digit numbers, and four pairs of three-digit numbers. For all items, the discriminating digits in the pairs were varied to ensure that the student understood place value, e.g., 48

versus 58, and 67 versus 65. This subtask consisted of 10 items, and students were given a one-minute timeframe to identify as many as they possibly could of the larger number in each pair of numbers. Two scores were generated for this subtask: (1) the number of correct responses made per minute and (2) the percentage of correct responses for the items attempted in the time allocated.

3. *Missing number (number patterns)* assessed students' ability to discern and complete number patterns. Each item in this subtask consisted of four placeholders with numbers in a sequence and one placeholder blank for a next or missing number. The student was asked to determine and name the missing number. Used numbers ranged from single-digit to three-digit numbers (maximum 550). The patterns that were used included counting forward and backward by ones, by fives, by tens, and by twos. This subtask consisted of 10 items, and students were given a one-minute timeframe to determine as many as they possibly could of the missing numbers needed to complete the patterns/sequences. Two scores were generated for this subtask: (1) the number of correct responses made per minute and (2) the percentage of correct responses for the items attempted in the time allocated.
4. *Addition and subtraction (level 1)* assessed students' procedural knowledge and fluency in the basic operations of addition and subtraction. In the assessment, addition and subtraction were assessed in separate tasks. In both of the tasks, students were presented with two-number addition/subtraction items, with sums/differences below 20, and asked to solve them mentally (if students used their fingers they were not stopped from doing so). The addition problems ranged from the addition of two single-digit numbers with sums less than 10, to the addition of two single-digit numbers with sums equal to 10, to the addition of a single-digit number to a double-digit number with a sum less than 20, and to the addition of two single-digit numbers with sums greater than 10 (i.e., involving bridging the 10). The subtraction problems ranged from the subtraction of a single-digit number from a single-digit number, to the subtraction of a single-digit number from 10, to the subtraction of a single-digit number from a double-digit number with a difference greater than 10 (i.e., requiring no bridging of the 10), and to the subtraction of a single-digit number from a double-digit number resulting in a single digit number (i.e., involving bridging the 10). Each of the level 1 addition and subtraction subtasks consisted of 20 items, and students were asked to solve as many problems as they possibly could in 30 seconds, with their score being converted to give a per-minute rate. Two scores were generated for the level 1 addition and subtraction subtasks: (1) the number of correct responses made per minute and (2) the percentage of correct responses for the items attempted in the time allocated. Students who were able to correctly answer one or more addition or subtraction problems were given the opportunity to attempt the level 2 subtasks.

5. *Addition and subtraction (level 2)* assessed students' more conceptual understanding of addition and subtraction,<sup>15</sup> as well as their ability to apply the procedural knowledge assessed in the two level 1 subtasks. In the assessment, addition and subtraction were assessed in separate tasks. For these subtasks, students were presented with two-number addition/subtraction items and asked to solve them. The assessor offered paper and pencil to the students, who were told that they were allowed to use these aids if they wished, but that they did not have to use them if they did not want or need to do so (if students used their fingers or drew lines to solve the problem, they were encouraged to use another method if they could). The addition problems ranged from the addition of a single-digit number to a double-digit number with a sum less than 20, to the addition of a single-digit number to a double-digit number with a sum greater than 20 (i.e., involving bridging of a 10), to the addition of two double-digit numbers with a sum less than 100 that did not require bridging a 10, and to the addition of two double-digit numbers with a sum less than 100 that required bridging of a 10. The subtraction problems ranged from the subtraction of a single-digit number from a double-digit number less than 20 without bridging, to the subtraction of a single-digit number from a double-digit number less than 20 and involving bridging, to the subtraction of a double-digit number from a double-digit number that required no bridging, and to the subtraction of a double-digit number from a double-digit number involving bridging the 10. Each subtask consisted of five items arranged in order of increasing difficulty, and students were asked to solve as many addition problems as they possibly could in a one-minute timeframe. Two scores were generated for each subtask: (1) the number of correct responses made per minute and (2) the percentage of correct responses for the items attempted in the time allocated.
6. *Word problems* assessed student's ability to interpret a situation (presented to them in words), make a plan, and solve the problem. Because the focus was on assessing the student's ability to interpret a situation, make a plan, and solve a problem, the numerical values involved in the problem were deliberately small, to allow for the targeted skills to be assessed without being confounded by problems with calculation skills that might otherwise impede performance. The situations used were designed to provoke different mathematical solutions. For this subtask, students were asked to solve the problems using any strategy that they wished, including the use of paper and pencil and/or counters supplied by the assessor. This subtask consisted of three items, and no time limit was set for the solution of the problems, although students were encouraged to move on to the next problem if they were making no progress on an item after 1 minute. One score was generated for this subtask: the percentage of correct responses for the items attempted.

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<sup>15</sup> Level 2 problems are more conceptual than level 1 problems because the student must understand what he or she is doing (these items do not represent memorized facts) and also apply level 1 skills. Level 2 problems are not purely conceptual, but are more conceptual than level 1, especially so for grade 2 and grade 3 students.

In the Iraqi EGMA instrument, the word-problem subtask was included only after the pilot study had been conducted. The results of the pilot study suggested that the number identification subtask was not sufficiently demanding to distinguish the range of participating students. Although it was decided not to omit the number identification subtask in case the study sample proved to be more diverse than the pilot sample, it was decided to include the word problem subtask to access information about the ability of students in Iraq to interpret a situation, make a plan, and solve the problem

All subtasks (with the exception of the word-problem subtask) were timed to manage task length and also to enable the research team to examine both automaticity (fluency, measured in number of correct items per minute) and accuracy (measured in percentage correct out of number attempted). For the number discrimination and missing number subtasks, the students completed two practice items before attempting the actual items, to ensure that they understood the respective tasks before being asked to answer the problems.

## **2.4 Overview of SSME**

The SSME is an instrument that yields a multifaceted picture of school management practice. Management data collected by the SSME include pedagogical approach; time on task; interactions among students, teachers, administrators, district officials, and parents; record keeping; discipline; availability and condition of school infrastructure; availability of pedagogical materials; and safety. Data are collected via direct classroom and school observation; student assessments; and interviews with students, teachers, and principals. By collecting information on only the most crucial school effectiveness factors, and by applying innovative and simple data-collection methodologies, the SSME is able to produce a rich data set at low cost. The SSME is designed such that a single assessor can assess a school in just one day. The resulting data are designed to let school, district, provincial, or national administrators or donors learn what is going on in their schools and classrooms and to help answer the question, “Why is it that some schools succeed while others do not?”

Building on the framework for the analysis of effective schools described in the effective schools literature,<sup>16</sup> the SSME collects information on (1) basic school inputs such as school infrastructure, pedagogical materials, teacher and principal characteristics, student characteristics, and parental and community involvement; (2) classroom teaching and learning processes, including use of material, instructional content, student-teacher interaction, time on-task, assessment techniques, and administrative oversight; and (3) learning outcomes data, via the application of abbreviated portions of two other instruments: EGRA and EGMA (see Sections 2.2 and 2.3). These brief but thorough oral assessments that are administered individually

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<sup>16</sup> This framework for the analysis of school effectiveness is based on research reported by H. Craig & W. Heneveld, (1996). *Schools count: World Bank project designs and the quality of primary education in sub-Saharan Africa*. World Bank Technical Paper Number 303 (Africa Technical Department Series). Washington DC: World Bank; and J. Carasco, C. Munene, D. Kasente, & M. Odada, (1996). *Factors affecting school effectiveness in Uganda: A Baseline study*. Kampala: Uganda National Examination Board.

to randomly selected students add to the information about school management effectiveness by accurately evaluating students' knowledge of foundational reading and math skills.

The SSME is administered during one school day by a four-person team. Each of the components of the SSME is designed to supply information from a different perspective. The SSME design aims to balance the need to include a broad mix of variables—in order that potentially impactful characteristics can be identified—with the competing need to create a tool that is as undistruptive to the school day as possible. When combined as a whole, these instruments produce a multifaceted and comprehensive picture of a school's learning environment, and when the results from multiple schools in a region are compared, it becomes possible to account for differences in school performance. Following is a listing of the SSME components (see *Annex B* for paper versions of the instruments):

1. Principal Questionnaire – administered to the principal in each school visited;
2. Teacher Questionnaire – administered to the two teachers whose students were selected for assessment;
3. Student Questionnaire – administered to each student randomly selected for assessment;
4. Mini-EGRA and Mini-EGMA – administered to a random sample of students in grade 2 and grade 3 (see Sections 2.2 and 2.3);
5. School Observation – administered at each school visited;
6. Classroom Inventory – administered in each of the two sampled classes;
7. Classroom Observation (reading) – administered during the reading lesson in the lower-grade classroom (grade 2 in the case of Jordan); and
8. Classroom Observation (mathematics) – administered during the mathematics lesson in the lower-grade classroom (grade 2).

## **2.5 Instrument Development Process for Iraq: EGRA, EGMA, and SSME**

The EGRA, EGMA, and SSME tools are always carefully tailored to the appropriate country or region, rather than existing tools simply being translated into the language selected for the implementation. In the case of Iraq, the content for the EGRA subtasks, in particular, was developed to ensure that the material presented to students was suitable for the requirements of the Iraqi curriculum.

Twenty-two staff from the Ministry of Education participated in a one-week instrument development and adaptation workshop that began on December 11, 2011. The group included school teachers and directors, education inspectors/supervisors, reading and mathematics curriculum experts, and senior officials from the Ministry. The goal of the workshop was to create reading and mathematics assessment tools that reflected the Iraqi school curriculum and measured skills that were relevant to the acquisition of reading in Arabic.

Similarly, the SSME instrument was streamlined to include items that were of interest to the participants and were adapted to the conditions of school management applicable for the entire country.

Each instrument was pretested in four schools within the region of Baghdad. (These schools were not included in the sample used for final assessment.) The SSME instrument was then reviewed in light of the pretesting experience, any phrasing of questions that led to misunderstandings was clarified, and problematic questions were removed or modified. The EGRA and EGMA were 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.

## **2.6 Sample**

### **2.6.1 The Population and Sample**

The population for the Iraq EGRA-EGMA-SSME study included all grade 2 and grade 3 students who were attending school during the 2011–2012 Iraq academic school year in the following provinces: Anbar, Baghdad, Karbala, Maysan, Najaf, and Wasit.<sup>17</sup> To obtain a random sample of grade 2 and grade 3 students, a three-stage sample was implemented by selecting: schools, classrooms, and then students.

The random sample of schools was selected from the Education Management Information Systems (EMIS) list of primary schools. Schools were stratified by province and were then selected proportionally to the combined grade 2 and grade 3 enrollments as reported by the Iraq EMIS unit. *Table 1* provides the population and sample count of schools, as well as the expected grade 2 and grade 3 enrollments. To account for nonproportional sampling of schools, sample weights were created and applied to all analyses to guarantee that the sample properly represented the population of interest (see *Annex C: Sample Methodology and Weighting*). For each school, the principal (or the assistant principal, if the principal was not available) was automatically chosen to complete the School Observation Questionnaire as well as the Principal Questionnaire.

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<sup>17</sup> It should be noted that this sample is not a nationally representative sample but is only representative of the six provinces: Anbar, Baghdad, Karbala, Maysan, Najaf, Wasit.

**Table 1. SCHOOL: Population and sample counts of Iraq primary schools and grades 2 and 3 enrollment counts within the schools**

School Stratification Province	Population* Counts		Sampled Schools Counts	
	Schools	Grades 2 and 3 Enrollment	Schools	Grades 2 and 3 Enrollment
Anbar	122	16,727	9	1,520
Baghdad	331	59,783	9	1,732
Karbala	439	64,204	9	1,605
Maysan	433	49,330	9	1,215
Najaf	539	80,627	9	2,148
Wasit	473	51,775	9	1,176
<b>Total</b>	<b>2,337</b>	<b>322,446</b>	<b>54</b>	<b>9,396</b>

\*Population counts are based on the 2011 EMIS list of all primary schools containing at least one grade 2 student and one grade 3 student.

Within each selected school, all grade 2 classrooms were listed<sup>18</sup> and one grade 2 classroom was randomly selected with equal probability. The same process was followed for the grade 3 classrooms. For each selected classroom, the assessor completed the Classroom Inventory Questionnaire and the classroom's teacher was automatically chosen to complete the Teacher Questionnaire. For the grade 2 classrooms only, the assessor also completed the Reading Classroom Observation Questionnaire and the Math Classroom Observation Questionnaire.

Within each selected classroom, 10 to 14 students were selected at random with equal probability. If a classroom contained less than 10 students, then all of the students in that classroom were automatically selected and assessed. Each student completed the Student Questionnaire, EGRA, and EGMA. The final sample count of schools, principals, teachers, and students is presented in *Table 2* (SAMPLE). *Table 3* (ASSESSMENT) provides the final counts of the completed EGRAs, EGMAs, and SSMEs.

**Table 2. SAMPLE: Final sample counts of assessed items**

Items Sample/Assessed	Grade 2	Grade 3	Total
Schools	—	—	54
Principals	—	—	54
Teachers	54	54	108
Students	580	573	1,153

<sup>18</sup> If a school had shifts, the list of all grade 2 and grade 3 classrooms was made for the shift that was in session at the time assessors arrived at the school.

**Table 3. ASSESSMENT: Final count of the completed EGRA-EGMA-SSME assessments**

Instruments Assessed	Level	Total
Schools	School	54
Principals	School	54
Teacher Instrument	Teacher/Class	108
Classroom Inventory	Teacher/Class	108
Reading Classroom Observation	Teacher/Class (grade 2 only)	54
Math Classroom Observation	Teacher/Class (grade 2 only)	54
Student Instrument	Student	1,153
EGRA	Student	1,153
EGMA	Student	1,153

### 2.6.2 Data Processing

Information in each data set of the study (i.e., the EGRA, EGMA, and SSME interview/observation instruments each had their own data set) was checked for consistent responses. Checks were conducted both within each data set and among the data sets; inconsistent responses were edited only if it was clear which inconsistency was incorrect. Because of the high response rate, data were not imputed. To account for the nonproportional sampling, each selected item was weighted based on the sampling methodology and scaled to the population.

### 2.7 Limitations of the Study

One limitation of the present study involves the EGRA instrument. It became apparent at the start of data collection in the field, that several words within the EGRA instrument were missing diacritic marks. It is RTI's standard practice, when administering reading assessments in Arabic, to include all such markings in order that students will have all of the information they need to determine how to decode and pronounce a word. This is especially important on the invented word subtask of the EGRA, not only for the student but also for the assessor, so that he or she will be able to properly mark the students' responses as correct or incorrect, as the case may be. Unfortunately, because the missing diacritics were not noticed until data collection had already begun, a corrected version of the EGRA could not be prepared as a replacement until day 4 of data collection. Thus, EGRA data from the first 3 days of data collection were excluded from the analysis, although the rest of the data from these days was included. The remaining days of data collection that used the corrected EGRA included a large enough sample to maintain the statistical validity of the EGRA findings presented in this report.

Another limitation of the study arises from errors made by one member of the data collection teams. This individual did not properly enter the student enrollment numbers into the electronic device (iPad), and thus it was necessary to exclude enrollment data from 25% of the schools visited.

### 3. EGRA and EGMA Findings

As a first step, data for EGRA and EGMA were analyzed separately. The analyses provided average scores for each subtask for the assessed grade 2 and grade 3 students, as well as provided a more detailed study of the pattern of incorrect response, when relevant. The data analyses yielded a description of the early grade students' reading and mathematics skills in Iraq

As a second step, EGRA and EGMA scores were analyzed in relation to the SSME information that was collected in the schools. RTI researchers carried out validity and reliability tests of the EGRA and EGMA. Cronbach's alpha values for both indicated that the instruments showed good internal consistency on average ( $\alpha = 0.86$  for EGRA and 0.80 for EGMA). Statistics such as these can show how well a set of variables measures an underlying construct, and in the present study, they suggest that the different subtasks of the Iraq EGRA and EGMA all contributed to measuring early grade students' reading and mathematics knowledge.

#### 3.1 EGRA Findings

This section presents summary statistics for all subtasks of the EGRA in Iraq.

##### 3.1.1 Summary of EGRA scores

*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, students had limited prereading skills. Students in grades 2 and 3 could identify approximately 14 letters by name in one minute. Students' limited mastery of the letters contributed to very low scores in invented word decoding and oral reading fluency. More specifically, students in grade 2 read an average of 3.7 invented words and 11.4 real words per minute, whereas students in grade 3 read 4.7 invented words per minute and 21.2 words of the passage in one minute. Not unexpectedly, then, students' reading comprehension scores also were low, with 0.9 total correct answers in grade 2 and 1.6 in grade 3. Listening comprehension scores were higher, with an average of 2.9 total correct answers in grade 2, and 3.4 in grade 3.

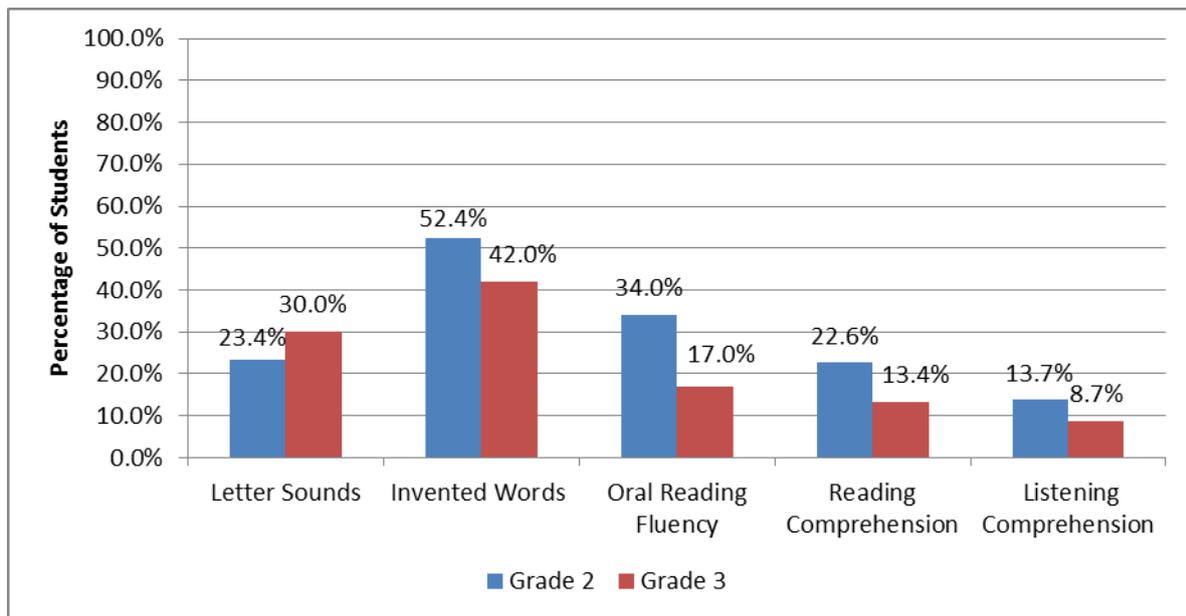
**Table 4. Summary of Iraq EGRA scores**

	% students with zero scores	Grade 2 total	Grade 3 total	Overall total
Letter sound knowledge	26.5%	13.6	13.5	13.6
Invented word decoding	47.5%	3.7	4.7	4.2
Oral reading fluency	25.9%	11.4	21.2	16.0
Reading comprehension	17.8%	0.9	1.6	1.3
Listening comprehension	11.3%	2.9	3.4	3.1

### 3.1.2 EGRA Zero Scores

Examining students' performance without considering zero scores may not provide a clear picture of the reading achievement of students who do learn to read. Zero scores can depress the overall average, and examination of *Figure 1* suggests that the large number of zero scores likely had this effect. Just over half the students in grade 2 were unable to read a single invented word, and one third of the students in grade 2 could not read a single word from the passage. Answering comprehension questions was also problematic for several of the grade 2 students.

**Figure 1. 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 reading and comprehension 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**

Subtask	Grade 2 total	Grade 3 total	Overall total
Letter sound knowledge	17.7	19.3	18.5
Invented word decoding	7.9	8.0	8.0
Oral reading fluency	17.3	25.5	21.6
Reading comprehension	1.9	2.2	2.1
Listening comprehension	3.3	3.7	3.5

The differences in overall total EGRA scores are very important once zero scores are removed. Students' letter sound scores increased from 13.6 to 18.5 when only those who could produce at least one letter sound were considered. Those who were able to read at least one word could read lists of invented words at 8 cwpm, and a passage of text at a rate of 21.6 cwpm. Students' reading comprehension scores showed modest increases, from 1.3 correct answers to 2.1 questions answered correctly by excluding zero scores. In contrast, removing the zero scores had little effect on students' listening comprehension scores, as they increased by less than one point (from 3.1 to 3.5) when zero scores were excluded.

Another way to analyze EGRA and scores is to compare the scores to the number of items attempted on the subtask, which allows for an examination of accuracy. Fluency scores alone do not shed light on whether a student obtaining a relatively low score simply tackled the items at a slower pace, but responded correctly; or answered rapidly, but had many incorrect answers. Thus, comparing scores to the number of items attempted on the subtask provides further insight into students' mastery of early reading skills. *Table 6* presents the average score of the student population, the average number of items attempted for the subtasks, and the average percentage of correct attempts.

**Table 6. Summary of EGRA scores compared to the number of items attempted**

Subtask	Score	Attempted	Percentage correct/ Attempted
Letter sound knowledge	13.6	50.8	26.7%
Invented word decoding	4.2	31.9	13.1%
Oral reading fluency	16.1	39.9	40.3%
Reading comprehension	1.3	1.6	76.5%
Listening comprehension	3.1	5.1	61.5%

Table 6 shows that students had limited accuracy in their responses on each of the EGRA subtasks. Students were most successful at answering comprehension questions about passages they read or heard. Students accurately answered 76.5% of the reading comprehension questions they attempted (though on average they attempted fewer than 2), and 61.5% of the listening comprehension questions they attempted. In contrast, students were less accurate in their attempts to read real words and invented words, in addition to producing letter sounds. Students accurately read 40.3% (16.1) of the 40 words they attempted in the passage. In contrast, students struggled to a greater extent with the two tasks with limited contextual support. Students successfully produced 26.7% (13.6 of the 50.8) letter sounds they attempted, and decoded 13.1% (4.2 of the 31.9) invented words attempted. This shows that for these students, the challenge most likely was the ability to identify letters, 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 7. Summary of EGRA scores compared to the number of items attempted once zero scores were excluded**

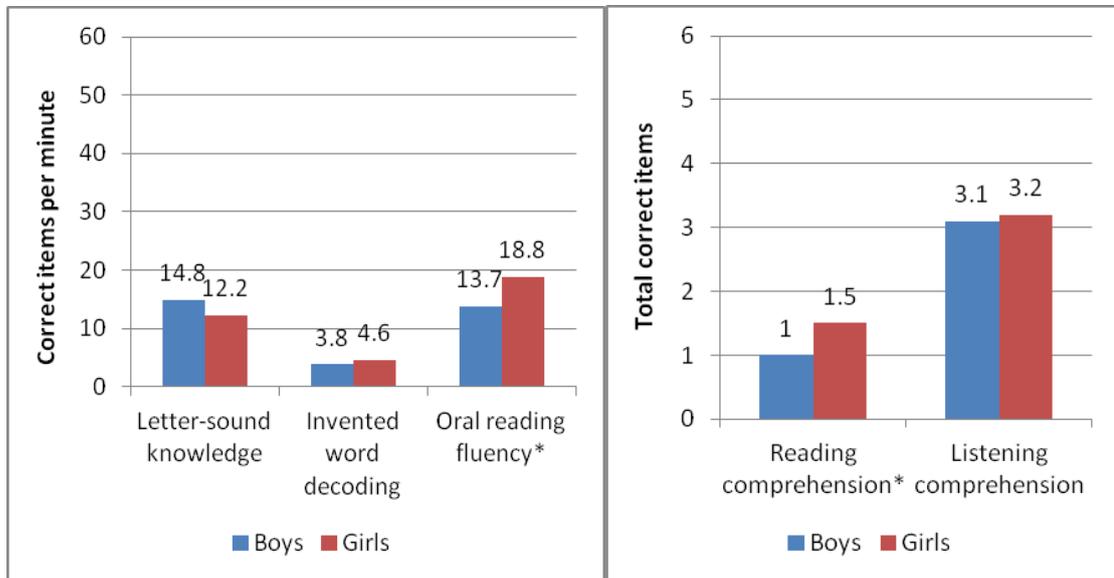
Subtask	Score	Attempted	Percent correct/ Attempted
Letter sound knowledge	18.5	33.2	55.7%
Invented word decoding	8.0	15.5	51.4%
Oral reading fluency	21.7	27.1	80.3%
Reading comprehension	2.1	2.4	87.6%
Listening comprehension	3.5	5.2	67.9%

Again, after zero scores were removed, students showed improved patterns of accuracy on the items that they had attempted on each of the subtasks of the EGRA. Students who were able to identify a single letter or read at least one word could read between about 50% and 80% of the words and letters that they attempted. Indeed, with zero scores excluded, students who could read at least one word in a passage were accurate in 80.3% of the words they attempted (in comparison to 40.3% accuracy when all students were included). The marked increase through excluding zero-scores, coupled with the low number of words attempted (27.1 words on average) suggests that these students had limited mastery of basic decoding skills, requiring them to rely on memorization and recognition of known words as the primary strategy for reading. Finally, students were successful at answering between about 68% and 88% of the listening and reading comprehension questions they attempted.

### 3.1.3 Scores by Gender

Boys in Iraq tended to show stronger knowledge of letter names, but girls showed stronger performance than boys in decoding invented words, oral reading fluency, and reading comprehension (*Figure 2*).

**Figure 2. EGRA scores by student gender**

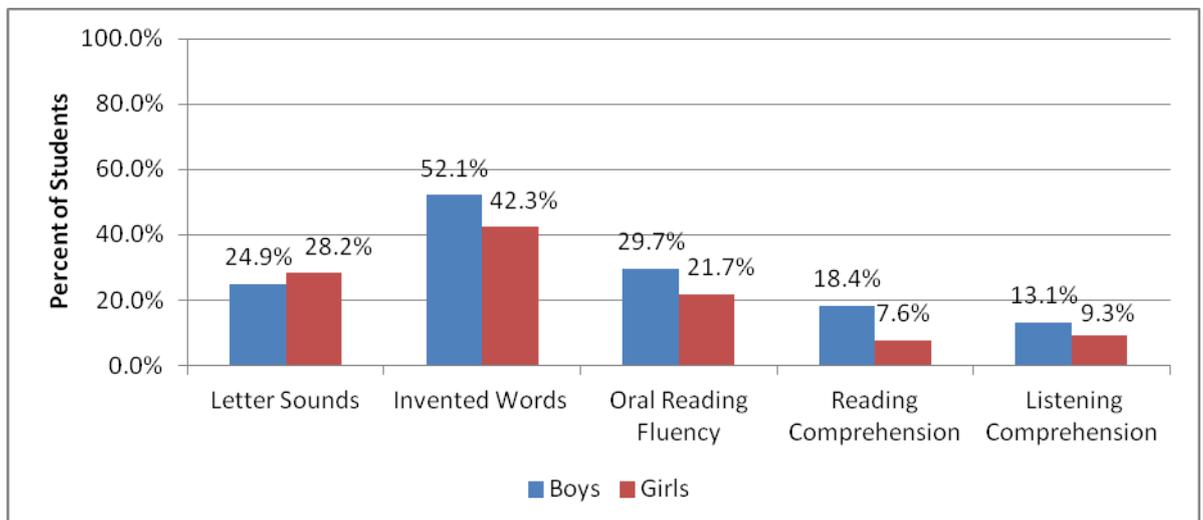


\* Difference in means was significant for the oral reading fluency ( $p=.01$ ) and reading comprehension ( $p=.004$ ) subtasks

**Note:** Separate scales were used for the two parts of Figure 2. 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.

Analysis of zero scores by gender also shows the same pattern of girls outperforming boys on all but the first subtask (*Figure 3*).

**Figure 3. Percentage of EGRA zero scores by student gender**



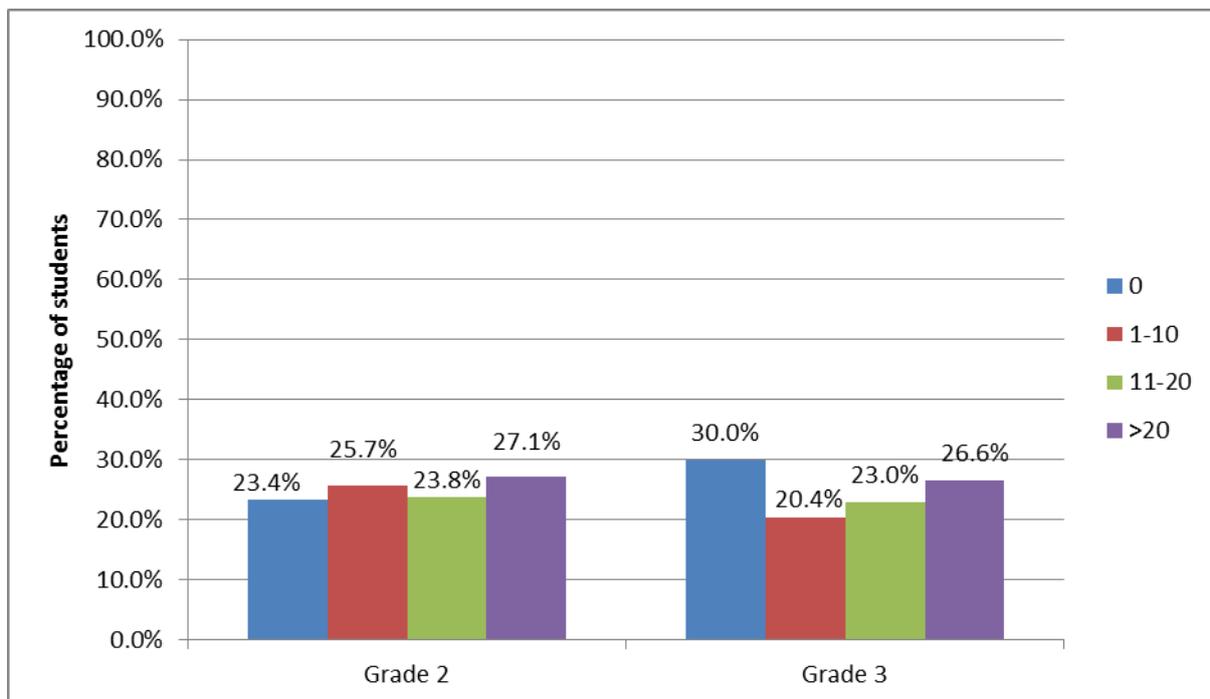
## 3.2 EGRA Results by Subtask

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

### 3.2.1 Letter Sound Knowledge

In the most basic subtask, letter sound knowledge, students were presented a chart with 100 random letters, and were asked to pronounce the sound of as many letters as they could within one minute. Knowing letter sounds 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 4** presents students' fluency in identifying letter sounds in grades 2 and 3. As can be seen, 76.6% of students in grade 2 and 70.0% of students in grade 3 could identify at least one letter sound. Among the grade 2 students, 25.7% identified between 1 and 10 letter sounds in one minute, and 27.1% identified over 20 letter sounds in one minute. A similar pattern was seen with grade 3 students, with 20.4% identifying between 1 and 10 letter sounds a minute, and 26.6% identifying more than 20 letter sounds in one minute.

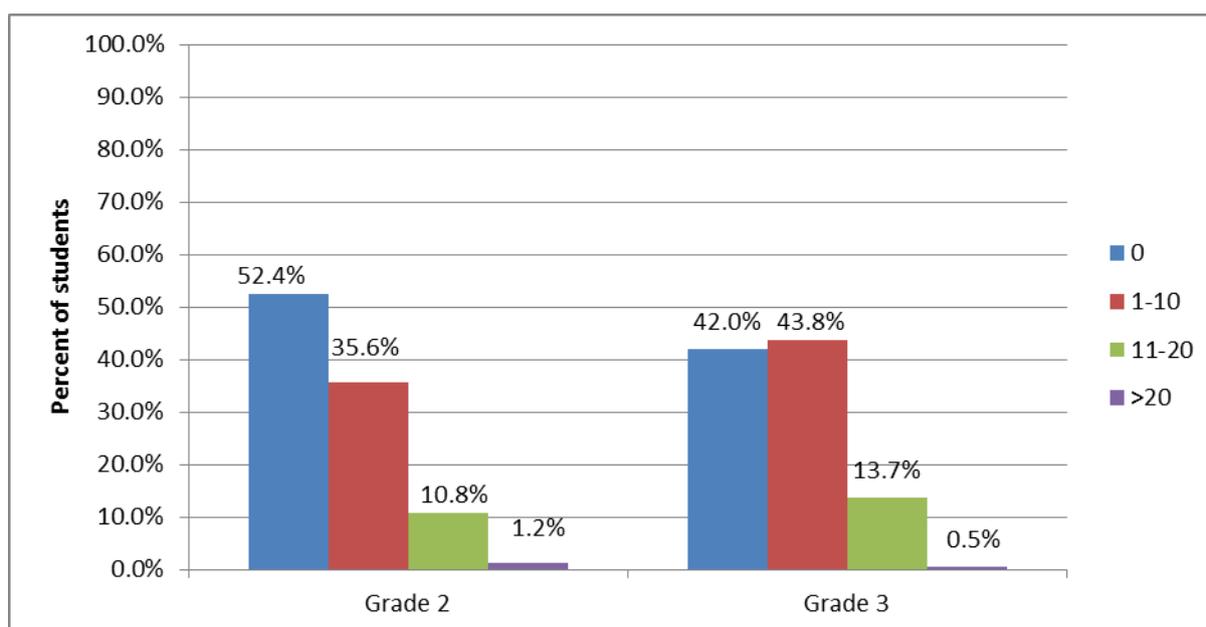
**Figure 4. Percentage of students identifying 0, 1–10, 11–20, and >20 correct letter sounds per minute (clpm) in grades 2 and 3**



### 3.2.2 Invented Word Decoding

In the invented word subtask, students were presented a chart with 50 invented (or nonsense) words, and were asked to pronounce as many of the words as they could within one minute. Skill at reading invented or nonsense words may be considered a purer measure of decoding than using real words, as students cannot recognize the words by sight. Although this subtask would not assess students' recognition of words that have been taught to them, decoding is considered a self-teaching skill that enables students 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 5* show that reading nonsense words was considerably more difficult for these students than reading passages containing familiar words. Indeed, 52.4% of students in grade 2 and 42.0% of third-grade students were unable to decode a single invented word. Students were successful in decoding 13.1% of the unfamiliar words that they attempted (Table 6). Students who could read at least one invented word showed limited success in doing so. Further, 35.6% of the second-grade students and 43.8% of the third-grade students decoded fewer than 11 invented words in one minute. Thus, these findings, combined with those from the letter sound knowledge subtask, suggest that students need greater instruction in phonics and strategies for decoding new words.

**Figure 5. Percentage of students reading 0, 1–10, 11–20, and >20 invented words per minute (cnonwpm) in grades 2 and 3**



### 3.2.3 Oral Reading Fluency

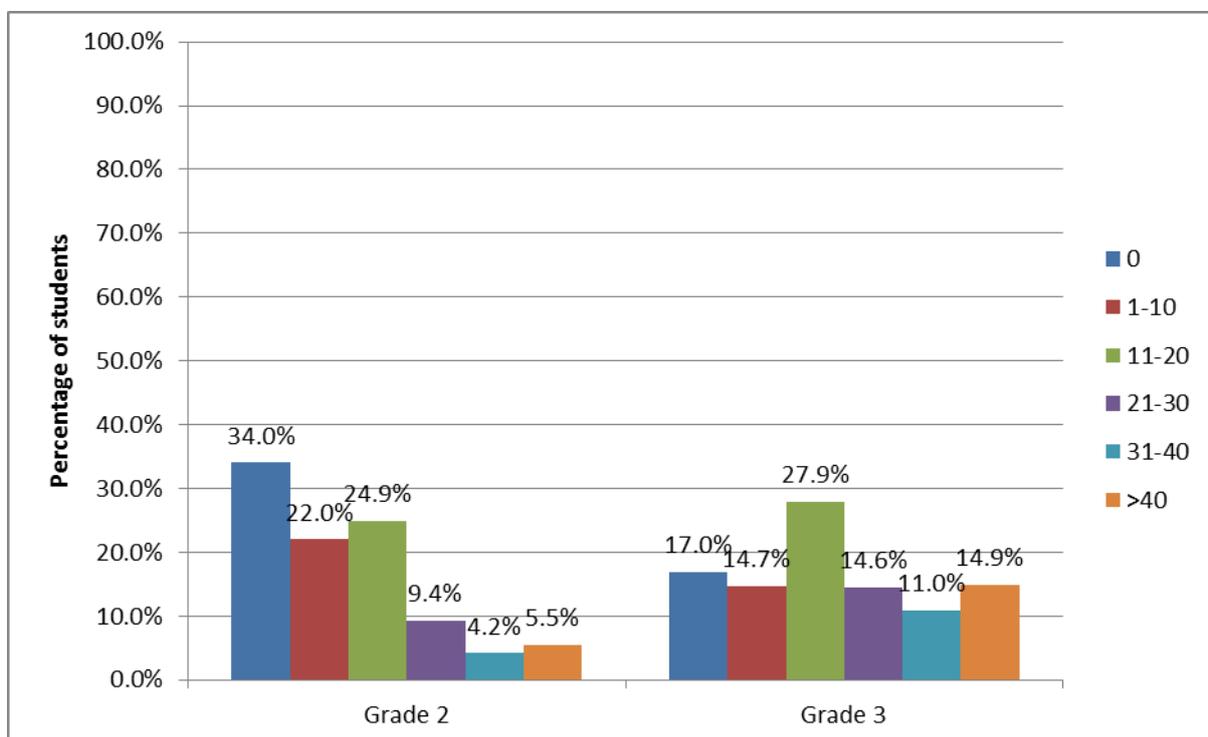
In the oral reading fluency subtask, students were asked to read as much of a narrative passage of local relevance as they could within one minute. Oral reading fluency may be considered an important index of reading competence, as it taps the skill and speed with which students translate letters into 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 students' reading fluency. The score for this subtask was the number of words from the passage that students accurately read in one minute (cwpm).

**Figure 6** shows that 34.0% of the students in grade 2 and 17.0% of their peers in grade 3 could not read a single word. As a result, the average oral reading fluency was 11.4 cwpm in grade 2, and 21.2 cwpm in grade 3 (Table 4). Among students who could read at least one word, students in grade 2 read on average 17.3 cwpm, and students in grade 3 read 25.5 cwpm (Table 5). Further, students accurately read less than half (40.3%) of the words they attempted (Table 6).

Correlational analyses suggest that students' weak oral reading performance may be attributable to their limited knowledge of the letter sounds (with a small correlation of  $r = .26$ ), and weak decoding skills (with a moderate to large correlation of  $r = .55$ ). Taken together, these findings show that students' limited mastery of the letter sounds and weak decoding skills must be addressed to improve their oral reading fluency.

**Figure 6. Percentage of students reading 0, 1–10, 11–20, 21–30, and >30 words of text per minute (cwpm) in grades 2 and 3**

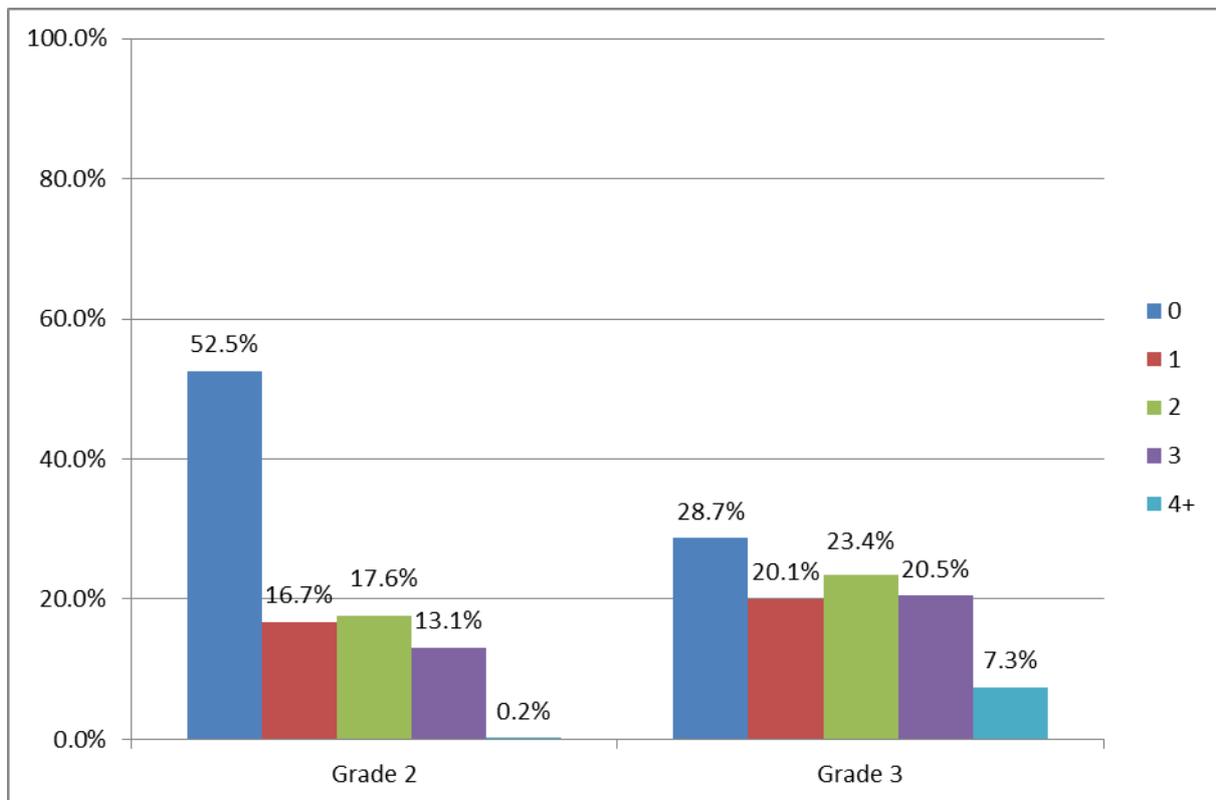


### 3.2.4 Reading Comprehension

After they had read the passage for one minute, the students were asked up to five comprehension questions about the story, with the number of questions asked varying according to how much of the story they were able to read. 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. Students' reading comprehension scores were recorded as the total number of correct responses, out of a possible 5. Overall,

students had weak reading comprehension scores, with almost two fifths of students unable to answer a single question. In grade 2, over half the students could not answer a single question (**Figure 7**). Among grade 2 students who could answer at least one question, the average comprehension score was 1.9 (see Table 5). Reading comprehension was stronger among grade 3 students, as only 28.7% of the students could not answer a single question and students who could answer at least one question had an average score of 2.2 (see Table 5).

**Figure 7. Percentage of students obtaining reading comprehension scores of 0, 1, 2, 3 and 4+ in grades 2 and 3**



Numerous large-scale studies and meta-analyses have reported robust correlations between oral reading fluency and reading comprehension.<sup>19</sup> The relationship between decoding speed and reading comprehension is particularly strong among beginning readers, as their word recognition skills still require conscious control.<sup>20</sup> **Figure 8**

<sup>19</sup> See Abu-Rabia (2007); and also:

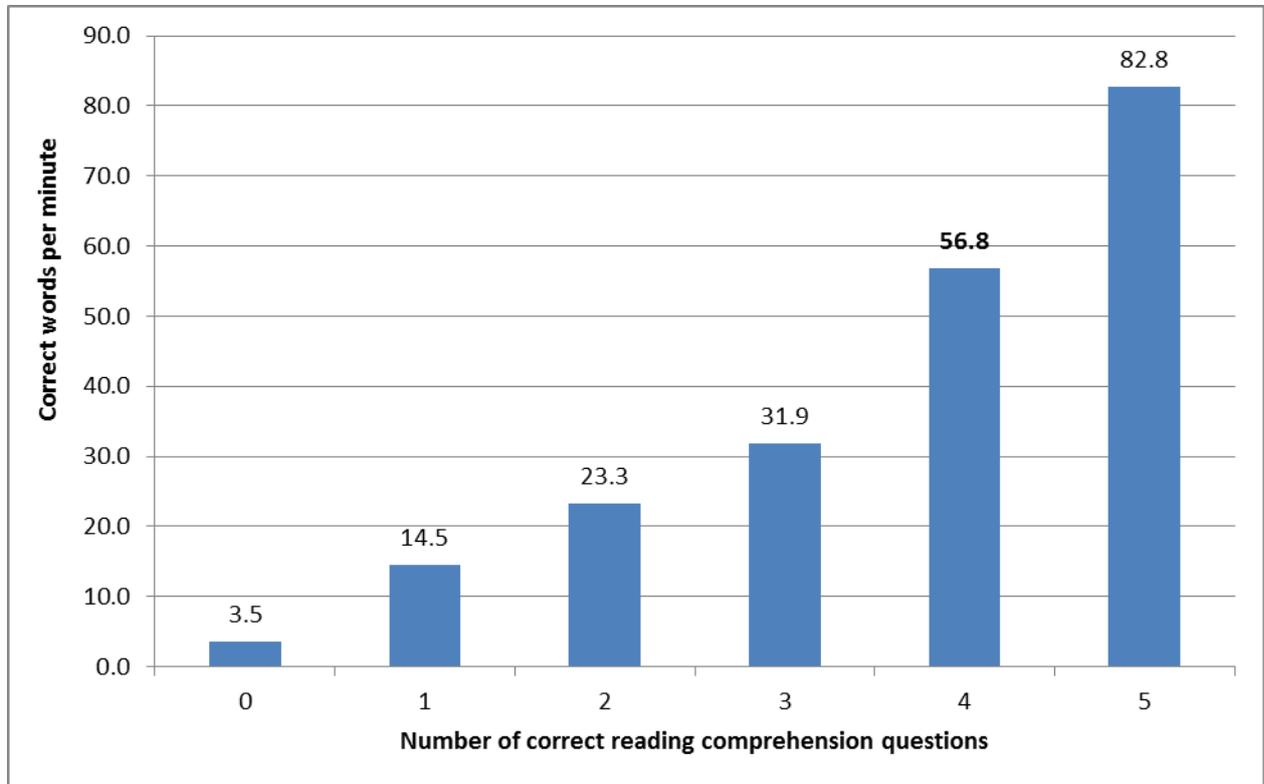
M.C. Daane, J.R. Campbell, W.S. Grigg, M. J. Goodman, & A. Oranje. (2005). *Fourth-grade students reading aloud: NAEP 2002 special study of oral reading (NCES 2006-469)*. U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office.

G.S. Pinnell, J.J. Pikulski, K.K. Wixson, J.R. Campbell, P.B. Gough, & A.S. Beatt. (1995). *Listening to children read aloud: Data from NAEP's Integrated Reading Performance Record (IRPR) at grade 4 (NCES 95-726)*. Washington, DC: U. S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

<sup>20</sup> W.A. Hoover & P.B. Gough. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, 2, 127–160.

illustrates the well-documented relationship between oral reading fluency and reading comprehension. Students who could answer four of the five comprehension questions—a comprehension rate of 80%—read 56.8 or more words per minute, a rate that is well above the average fluency for the assessed students.

**Figure 8. Number of reading comprehension questions answered correctly as a function of oral reading fluency scores**



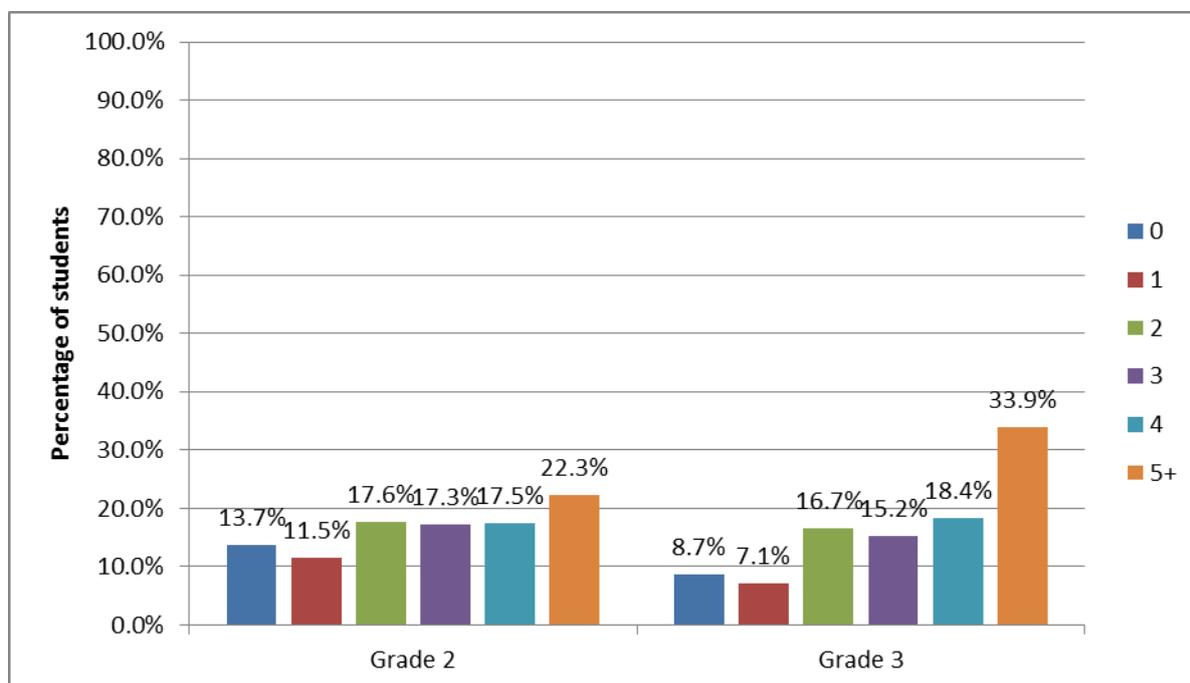
### 3.2.5 Listening Comprehension

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 Iraqi students, it also assessed their proficiency in MSA, which differs slightly from the vernacular dialect used in their homes.

In general, the listening comprehension subtask proved to be challenging to students (*Figure 9*). Despite students' listening comprehension scores being stronger than their reading comprehension scores, their overall performance was still weak. Although the number of students who could not answer *any* listening comprehension questions was small. Compared to the other tasks, only 22.3% of the students in grade 2 and 33.9% of the students in grade 3 answered at least five (or 83%) of the six listening comprehension questions correctly. These findings emphasize the often

underestimated challenge faced by students schooled in MSA, as proficiency in the vernacular, home dialect does not necessarily prepare students for the linguistic demands of the MSA used in schools.

**Figure 9. Percentage of students obtaining listening comprehension scores of 0, 1, 2, 3, 4, and 5+ in grades 2 and 3**



The research team also examined the relationship between listening comprehension and reading comprehension. Whereas oral reading fluency shared a large correlation with reading comprehension,<sup>21</sup> listening comprehension's relationship with reading comprehension was more moderate.<sup>22</sup> Thus, it appears that in addition to students' decoding skills, students' reading comprehension may also reflect some difficulties in comprehending oral stories in MSA. Students would benefit from instruction that would build their decoding and word recognition skills, in order to further develop their proficiency in MSA.

### 3.2.6 Analysis of Extreme Scores: How Did Low- and High-Performing Students Do on EGRA Subtasks?

Studying the processes involved in learning cognitive skills has resulted in valuable insight from closely examining how successful performance is achieved. The EGRA instrument aimed to identify the specific domains and skills in which good readers excelled, to thus set the objectives and improve the performance of low-performing students. High-achieving readers, who were able to answer *at least four (80%), or all five (100%),* of the reading comprehension questions correctly, were scrutinized in how well they performed on EGRA's reading subtasks. The researchers also looked

<sup>21</sup>  $r = .82$

<sup>22</sup>  $r = .42$

closely at students with low reading capabilities, to identify discrepancies in basic reading skills that are relative to the top performers. Low-performing readers were identified as those who did not read a single word correctly from the text passage (ORF score of zero) and who were unable to perform the reading comprehension subtask (see *Table 8*).

**Table 8. EGRA scores for low- and high-performing readers**

Score	ORF score of zero (0)	80% Reading Comp.	100% Reading Comp.
Correct letter sounds per minute	5.6	12.4 <sup>23</sup>	23.0
Correct nonsense words per minute	0.3	10.3	13.2
Oral reading fluency (text reading)	0	56.8	82.8
Total number of correct answers, reading comprehension	0	4.0	5.0
Total number of correct answers, listening comprehension	2.3	4.2	4.6

The comparison of low-performing readers and high-performing readers clearly indicates that students who were able to understand most or all of the text were able to perform better on all EGRA subtasks than students who could not comprehend the text and could not read any of the words in the short reading passage presented. Low-performing readers identified the sounds of 5.6 letters per minute on average, were able to read less than one (0.3) invented word per minute, and answered fewer than three of the six listening comprehension questions, on average.

However, students who correctly answered 80% of the reading comprehension questions attained average scores of 12.4 correct letter-sounds per minute, 10.3 invented words per minute, and 56.8 correct words per minute (oral reading fluency), in addition to being able to correctly respond to 4.2 of the listening comprehension questions. Figure 7 above shows that just 0.2% of grade 2 students and 7.3% of grade 3 students were able to read at this 80% comprehension level. As was discussed earlier in Section 3.2.4, there is a strong relationship between the ability to read with fluency and the ability to understand the text being read. In other words, if a student reads too slowly, it is difficult to make a cognitive connection between individual words in order to derive meaning from them. The third column of scores in Table 8

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<sup>23</sup> The correct letter sounds per minute (clpm) score associated with an 80% reading comprehension score (12.4) is lower than the overall average score of 13.6 clpm. This is because the score for students who achieved 100% on reading comprehension, at 23 clpm, is so high, relative to the other scores, that it served to raise the overall mean score.

above shows the performance of the strongest readers, students who were able to answer all 5—or 100%—of the reading comprehension questions. This means that not only were they able to finish reading the entire story of the oral reading fluency subtask within the one minute time limit, but they understood the story well enough to correctly answer every question they were asked about its content.

Given that all skills assessed in EGRA subtasks play a role in students' ability to read and understand print, scrutinizing the EGRA scores of good readers can enlighten our understanding of the gaps in learning that remain to be closed. High-performing readers' scores can be used as benchmarks for improving reading comprehension in all students. If reading with 80% comprehension is set as such a goal, results show that, on average, students need to more than double the speed of their invented word reading and oral reading fluency (Table 4).

### **3.3 Summary of Key EGRA Results**

The results of the Early Grade Reading Assessment in Arabic conducted in Iraq 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, students showed limited sound knowledge, a fundamental and critical skill for learning to read and spell. Iraqi students on average could identify 13.6 correct letters per minute. Close to one third of the students (26.5%) were unable to correctly identify the name of any letters. Given students' difficulties in identifying letter sounds, it is not surprising that students could not sound out, or decode, unfamiliar words, reading on average 4.7 invented words at the end of grade 3. Indeed, close to half the students (47.5%) could not decode a single invented word. Taken together, these findings suggest that students still need to acquire the foundational skills of recognizing the letter sounds and their different forms, knowing the sounds associated with each letter and diacritic mark, and applying this knowledge to sound out unfamiliar words.

Because the students had not acquired the basic building blocks for reading, their oral reading fluency scores were low. Students read on average 16.0 correct words per minute, with 25.9% of the students unable to read a single word. That is, on average, students required nearly 4 seconds to read each word. As a consequence, reading comprehension was low, as only 0.2% of the students in grade 2 and 7.3% in grade 3 could correctly answer at least four of the five reading comprehension questions (see Figure 7). In contrast, students' listening comprehension was somewhat stronger, with the average score being 3.1 (compared to 1.3 for reading comprehension). These findings suggest that Iraqi students need greater instructional support not just in their word recognition and decoding skills, but also in building their oral language skills in MSA. Although Arabic is a diglossic language and proficiency in the vernacular dialect is important for casual communication, it is proficiency in MSA that is critical for academic success. While students might have been proficient in the vernacular dialect, their listening comprehension skills were assessed using MSA.

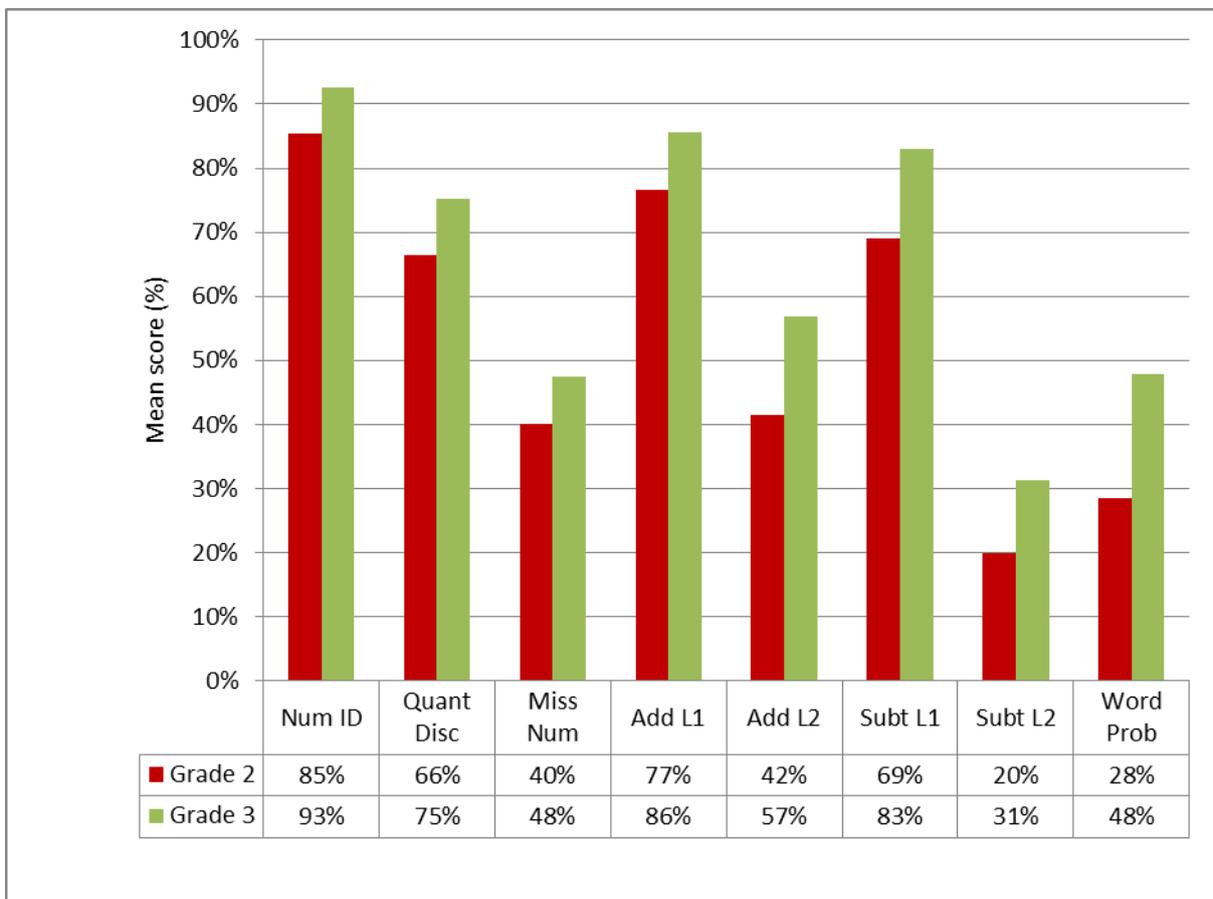
### 3.4 EGMA Findings

This section presents the most important research findings for the mathematics assessment, first with overall summaries and then by subtask.

#### 3.4.1 Summary of EGMA Scores

All subtasks indicated progression in student performance from grade 2 to grade 3. This progression was greatest on the addition and subtraction level 2 tasks. The results create the general impression (see *Figure 10*) that the students were more successful on those subtasks that assessed more procedural knowledge: number identification and addition and subtraction level 1. By contrast, the students performed less well on the subtasks that involved more conceptual understanding, namely the missing number, addition and subtraction level 2, and the word problem tasks.

**Figure 10. Mean scores of students for number of correct answers from number of attempted items by subtask and grade**



**Table 9** shows the average percentage of tasks answered correctly from the items attempted for each subtask and grade. Although these results show a positive progression from grade 2 to grade 3, an 11% increase, on average, from grade 2 to grade 3 is less than what would be expected from the benefit of an additional year of schooling. At first glance, it would appear as if the grade 3 students had not gained much during the additional year that they had spent at school in terms of the skills assessed by EGMA.

In general, an overall trend across subtasks is evident: Students performed best on number identification, quantity discrimination, and the more procedural level 1 addition and subtraction subtasks. The level of performance on these tasks should be pleasing to the Ministry of Education; it is clear that these students were learning at least basic skills and procedures and were doing well. However, and particularly in grade 2, students struggled with the more conceptual subtasks: missing number, level 2 addition and subtraction, and word problems. Students answered the more procedural level 1 addition and subtraction items with confidence—76.5% for addition and 69.0% for subtraction in grade 2, and 85.6% for addition and 82.9% for subtraction in grade 3. However, differences between level 1 and level 2 performance were quite stark. From addition level 1 to addition level 2, students’ performance dropped by 46% in grade 2 and 34% in grade 3. For subtraction, the drop was even greater: more than 70% (in grade 2) and 62% (in grade 3) from subtraction level 1 to subtraction level 2.

**Table 9. Mean automaticity (fluency) scores and percentages out of items attempted for each EGMA subtask, by grade**

Subtasks	Grade 2		Grade 3	
	# Correct/minute	% Correct/attempted	# Correct/minute	% Correct/attempted
Number identification	28.1	85.4%	35.5	92.6%
Quantity discrimination	7.5	66.4%	9.4	75.1%
Missing number	3.1	40.0%	4.1	47.5%
Addition (level 1)	9.1	76.5%	13.7	85.6%
Addition (level 2)	1.5	41.5%	2.3	56.8%
Subtraction (level 1)	7.5	69.0%	9.8	82.9%
Subtraction (level 2)	0.6	19.9%	1.0	31.2%
Word problems	[untimed]	28.4%	[untimed]	47.8%

Also noted is a decline in automaticity/fluency (number correct/minute) as the students moved from the more procedural subtasks to the more conceptual ones later in the EGMA, with the missing number and subtraction level 2 all having a fluency/automaticity rate of less than 5 correct items per minute compared with rates over and near 10 correct items per minute on the subtasks that assessed more procedural skills.

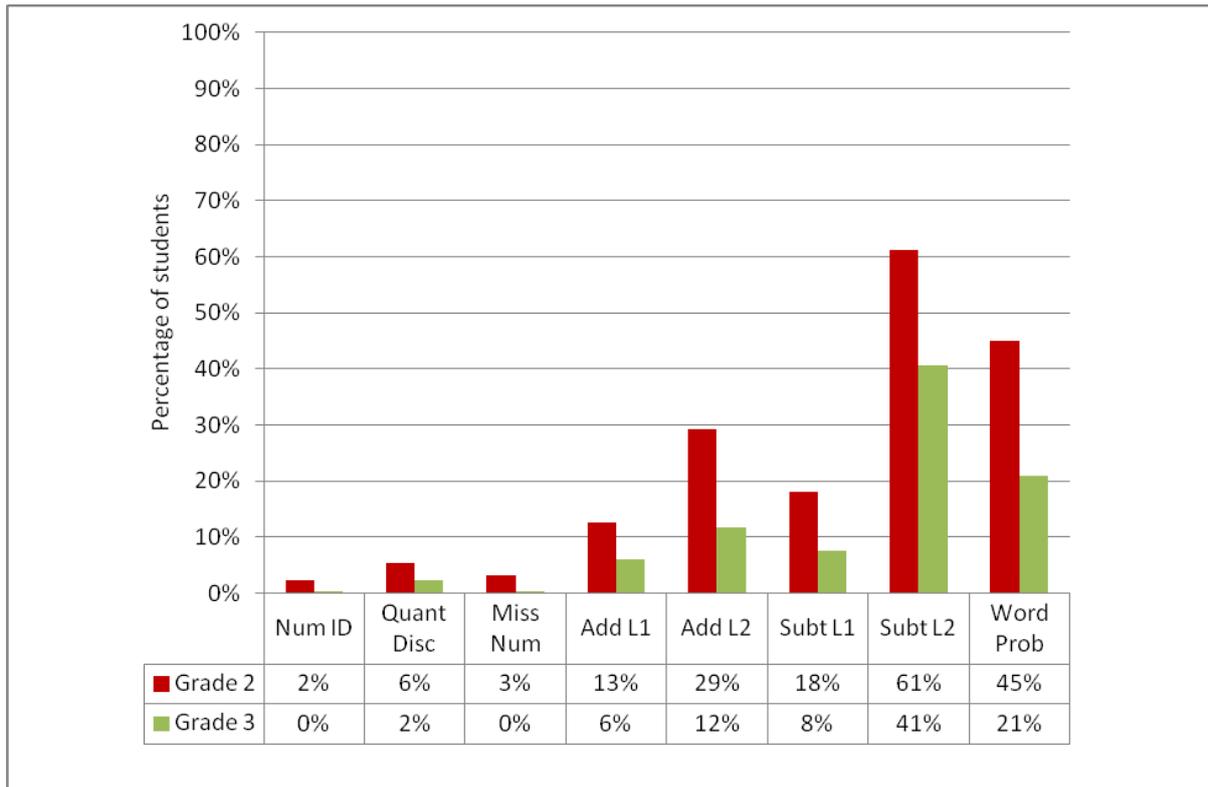
It is not enough for students to memorize mathematical facts, rules, and procedures. If they do not understand what they are doing and are unable to apply their more procedural knowledge (assessed in the number identification, quantity discrimination, and addition and subtraction level 1 subtasks) to solve problems that rely on the application of this knowledge, then their future mathematical development is at risk.

### **3.4.2 EGMA Zero Scores**

Looking across the EGMA results overall, there were some zero scores on every EGMA subtask, most markedly in the addition (level 2), subtraction (level 1 and level 2), and word problem subtasks. Figure 11 shows the percentages of students who were not able to respond correctly to a single item on each subtask in each grade. As with the overall trend, a zero score trend across subtasks is evident—students had fewer zero scores on those subtasks where they performed best, namely on number identification, quantity discrimination, and the more procedural level 1 addition and subtraction subtasks. However, 13% of grade 2 students were not able to answer a single addition level 1 problem correctly, and 18% of grade 2 students were unable to answer a single subtraction level 1 problem correctly. These subtasks consisted of basic (procedural) addition and subtraction problems “ $4 + 5 = \square$ ” and “ $5 - 2 = \square$ .” More striking, however, is the sharp increase in zero scores on the more conceptual subtasks, with 29% of grade 2 students and 12% of grade 3 students unable to answer a single addition level 2 problem correctly, where the cognitively least demanding of these questions was “ $16 + 3 = \square$ .”

On the subtraction level 2 subtask, an astounding 61% of grade 2 students and 41% of grade 3 students were unable to answer a single problem correctly; the cognitively least demanding of these questions was “ $19 - 3 = \square$ ”. Similarly, in the case of the more conceptual word problem subtask, a large percentage of the grade 2 (45%) and a fair percentage of the grade 3 students (21%) were unable to answer a single problem correctly.

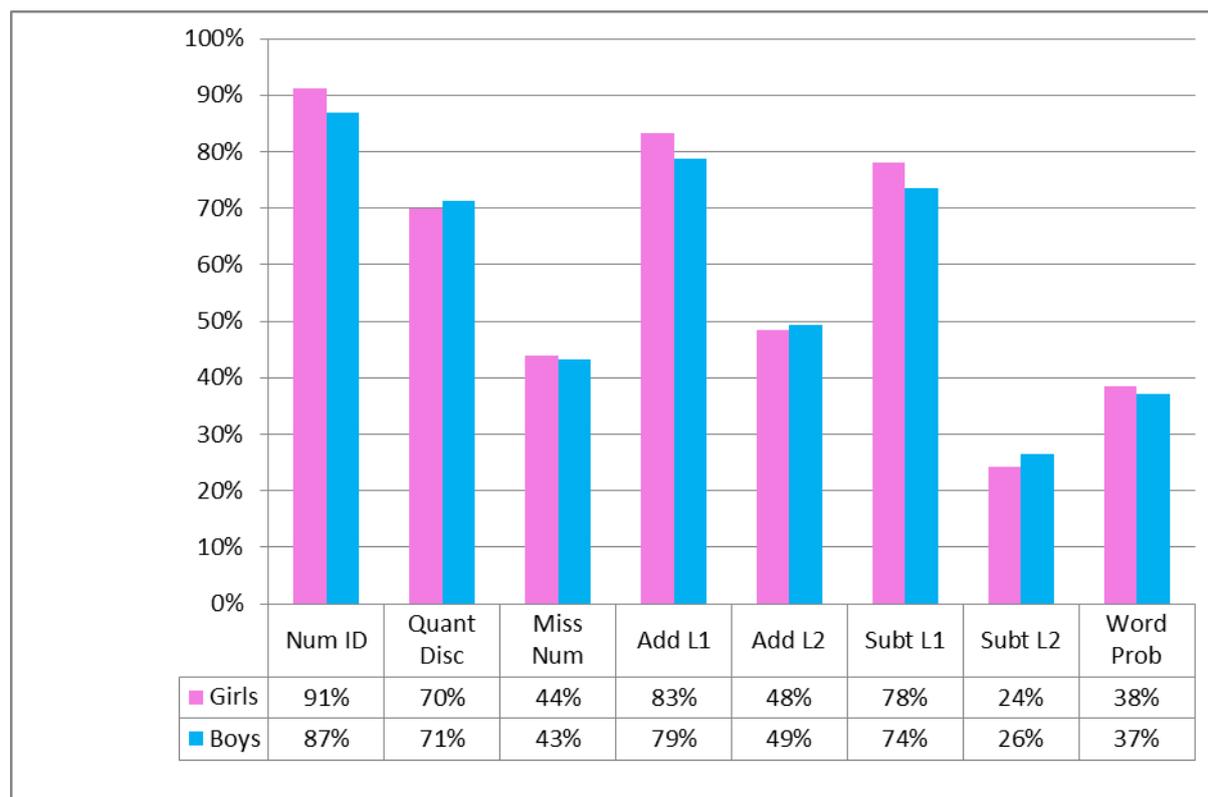
**Figure 11. Percentages of students with EGMA zero scores, by subtask and grade**



### 3.4.3 Differences by Gender

When the performance is disaggregated by gender at the national level (see *Figure 12*), there is no noticeable difference in performance across the genders. This is encouraging, as it suggests that Iraqi girls and boys experience their mathematics education in much the same way.

**Figure 12. Mean scores of students for number of correct answers from number of attempted items, by subtask and gender**



### 3.5 EGMA Results by Subtask

#### 3.5.1 Number Identification

This number identification subtask targeted the student’s knowledge and identification of written symbols. It assessed a student’s recognition and understanding that each of the numbers is a constant, with one number-word associated with it, and that the student knows the number-word associated with the number symbol.

Grade 2 students were able to correctly identify an average of 28 numbers in one minute, while grade 3 students were able to correctly identify 35.5 numbers in one minute. Grade 2 students were accurate 85% of the time (percentage correct out of attempted), and grade 3 students were accurate 93% of the time. Slightly less than 1% of grade 2 students and slightly less than 1% of grade 3 students had zero scores on this subtask.

Number identification items

2	9	0	12	30
22	45	39	23	48
91	33	74	87	65
108	245	580	731	989

٣٠	١٢	٠	٩	٢
٤٨	٢٣	٣٩	٤٥	٢٢
٦٥	٨٧	٧٤	٣٣	٩١
٩٨٩	٧٣١	٥٨٠	٢٤٥	١٠٨

Of the subtasks in the EGMA, this was the most basic, and the results indicate that students were able to identify numbers with pleasing levels of both fluency and accuracy.

### 3.5.2 Quantity Discrimination

Quantity discrimination in EGMA measures students' ability to make judgments about differences by comparing quantities, which are represented by numbers. The quantity discrimination subtask measures the student's sense of "muchness"—do they have a sense of how big a number/quantity is, and can they compare two numbers/quantities. Being able to compare numbers/quantities is a foundational mathematics skill that is critical to effective and efficient problem-solving strategies. For example, being able to compare numbers/quantities is important when estimating the reasonableness of answers to problems: In the early school years, addition results in a larger number, subtraction produces an answer that is smaller than at least one of the original numbers, multiplication can result in answers that are larger than the addition of the same numbers, and so on.

5	7	78	94
25	12	153	146
29	34	537	287
48	58	605	650
67	65	967	965
٩٤	٧٨	٧	٥
١٤٦	١٥٣	١٢	٢٥
٢٨٧	٥٣٧	٣٤	٢٩
٦٥٠	٦٠٥	٥٨	٤٨
٩٦٥	٩٦٧	٦٥	٦٧

As with the number identification subtask, the quantity discrimination subtask saw positive growth from grade 2 to grade 3, with average accuracy rising from 66.4% in grade 2 to 75.1% in grade 3, in terms of percentage correct out of attempted (see Table 9 above). Students performed best on the single-digit item (item 1: 2 versus 5), and generally speaking, better on the two-digit number items than on the three-digit number items. On the two-digit items, the items with which students had the most difficulty were those where both the tens' and ones' digits were different. For example, while over 80% of students were able to identify the larger number between 25 and 12, only slightly more than 50% of grade 2 students and less than 70% of grade 3 students could identify the larger number between 78 and 94. A similar trend can be observed across the three-digit numbers. These trends are encouraging, because they suggest that students were aware of the role of place value, and on those items where they had to pay attention to more variables, they struggled more than on the items where they did not.

### 3.5.3 Missing Number

As described earlier, for this missing number subtask, students were shown four placeholders with numbers in a sequence, and one placeholder was left blank for a next or missing number. The student was asked to determine and name the missing number. The subtask assessed students' ability to discern and complete number patterns. Being able to recognize number patterns, including counting in patterns (by ones, tens, hundreds, fives, and twos, etc., both forward and backward), lays the foundation for other mathematical concepts such as multiplication and division and, later, algebra. Being able to identify patterns more generally aids students in problem solving—mathematics is the study of patterns.

On average, students in grade 2 responded correctly to 40% of the items attempted at a fluency rate of 3 items per minute, and grade 3 students responded correctly to 48% of the items attempted at a fluency rate of 4 items per minute. Students had the most difficulty with items where the pattern was not a simple count-forwards-by-one pattern in a low number range (such as for items 1 and 2). Solving the missing number problems in the EGMA subtask involves studying the evidence available and using this to determine the step size of the pattern, as well as whether the pattern is increasing or decreasing, and then determining the missing number by extending the existing pattern. In the case of items 1 to 9, the patterns were no more than the standard counting patterns grade 2 and grade 3 students should have been exposed to at school. Judging by the EGMA results, if students have indeed been exposed to these patterns, then the likelihood is that the exposure was as chanting (procedural) patterns only, with little analysis (conceptual understanding) of them. The Iraqi grade 2 and grade 3 textbooks do not appear to devote much time to patterns and patterning.

The low performance on item 5 (increasing a single-digit pattern with a step size of two) is of some concern. The lower performance on items 6 to 9, which included step sizes of one and ten in a larger number range (items 6 and 9, respectively), a step size of five (item 8), and a decreasing pattern with a step size of two in a low number range (item 7), all coupled with the fact that only 10 students in the entire study could answer the last item correctly (an increasing pattern with a step size of five in a

Sample missing number items

5	6	7	
14	15		17
30		50	60
	300	400	500
	7	6	0
17		10	14
60	00		30
000	400	300	

relatively low number range, but with items that were not multiples of five), reinforces the impression that Iraqi students experience and know their mathematics in a largely procedural way, which does not nurture an understanding or foster the ability of students to apply their mathematics to solve unfamiliar problems.

### 3.5.4 Addition and Subtraction (Level 1)

As described earlier, both addition and subtraction were assessed in two different tasks. The so-called level 1 tasks consisted of items for which it is expected that students should develop some level of automaticity/fluency. The items on these tasks represent the foundational addition and subtraction “facts” that are at the heart of addition and subtraction with numbers in larger number ranges. Without achieving some level of automaticity/fluency on the range of addition and subtractions “facts” represented by these items, there is little expectation that students will be able to perform addition and subtraction (or even multiplication and division) in higher number ranges.

Although there was a slight drop in performance by both the grade 2 and grade 3 students from the addition level 1 to subtraction level 1 (from 77% to 69% for the grade 2 students and from 86% to 83% for the grade 3 students), students in both grades performed well (with a high degree of accuracy) on the level 1 tasks. Likewise, the mean scores for the tasks were high, and the percentage with zero scores was reasonably low—with the possible exception of the grade 2 students’ results on subtraction level 1, where 16% of the students were unable to answer one question correctly. These results are most encouraging; however, it is not enough to be able to answer the questions correctly. The level 1 questions should also be answered with some level of automaticity/fluency. Although there is no well-established “norm” against which to compare the Iraqi students, the grade 2 students on average were able to answer nine addition level 1 and eight subtraction level 1 questions correctly in one minute, while the grade 3 students were able to answer 14 addition level 1 and 10 subtraction level 1 questions correctly in one minute.

Sample addition and subtraction level 1 items	
$1 + 3 = \square$	$4 - 1 = \square$
$6 + 2 = \square$	$8 - 2 = \square$
$3 + 3 = \square$	$6 - 3 = \square$
$7 + 3 = \square$	$10 - 3 = \square$
$5 + 5 = \square$	$10 - 5 = \square$
$\square = 1 - 4$	$\square = 3 + 1$
$\square = 2 - 8$	$\square = 2 + 6$
$\square = 3 - 6$	$\square = 3 + 3$
$\square = 3 - 10$	$\square = 3 + 7$
$\square = 0 - 10$	$\square = 0 + 0$

### 3.5.5 Addition and Subtraction (Level 2)

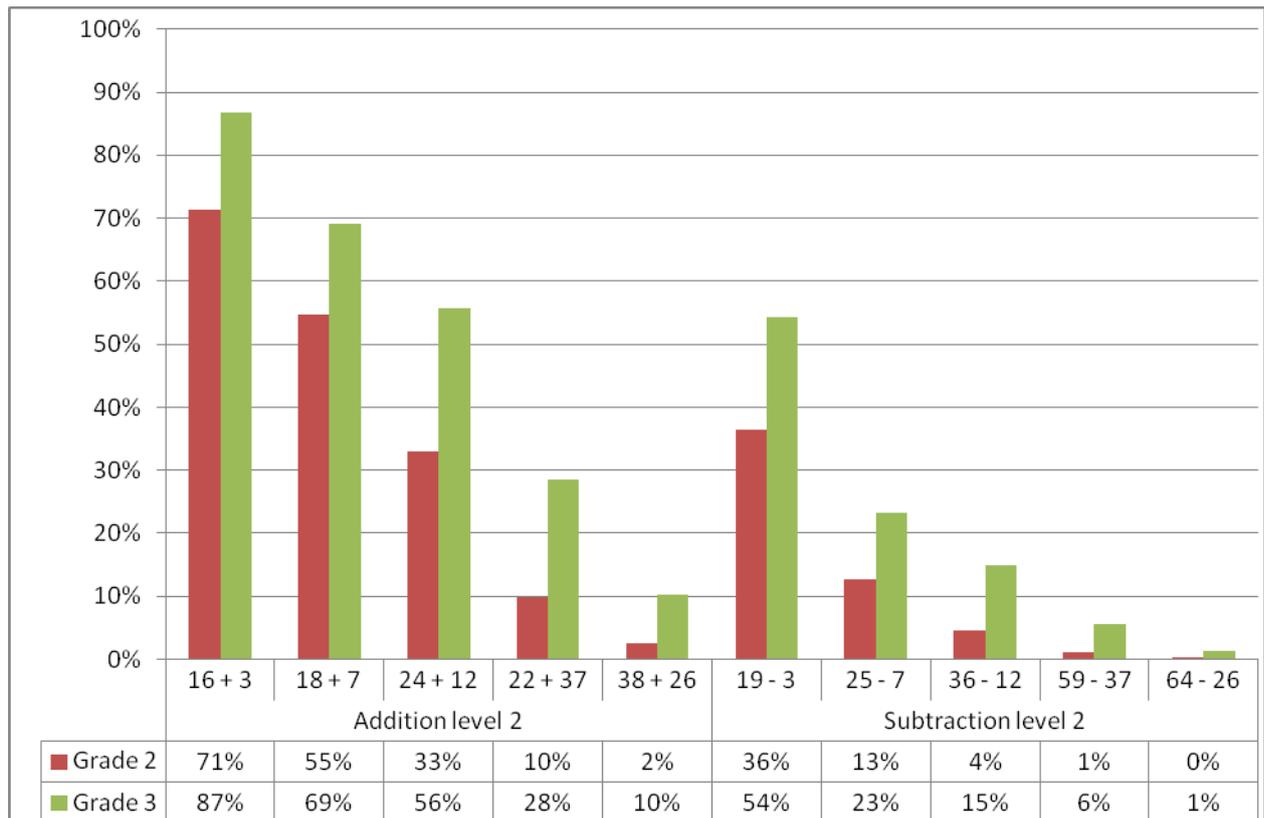
The level 2 addition and subtraction tasks assessed students' conceptual understanding of addition and subtraction, as well as their ability to apply the procedural knowledge that had been assessed in the level 1 subtasks to more complex tasks. Students were allowed to use paper and pencil to help them solve these questions, although if they used the paper and pencil only to solve the addition and subtraction problems by drawing lines, they were asked if they knew another method for solving these problems. If they did, they were encouraged to use it. Students who did not solve a single problem correctly on the level 1 versions of these tasks were not asked to solve the level 2 problems.

Addition and subtraction level 2 items	
$16 + 3 = \square$	$19 - 3 = \square$
$18 + 7 = \square$	$25 - 7 = \square$
$24 + 12 = \square$	$36 - 12 = \square$
$22 + 37 = \square$	$59 - 37 = \square$
$38 + 26 = \square$	$64 - 26 = \square$
$\square = 3 - 19$	$\square = 3 + 16$
$\square = 7 - 20$	$\square = 7 + 18$
$\square = 12 - 36$	$\square = 12 + 24$
$\square = 37 - 09$	$\square = 37 + 22$
$\square = 26 - 64$	$\square = 26 + 38$

A marked decline can be noted in performance on the level 2 addition and subtraction tasks when compared with the level 1 tasks. The performance of the grade 2 students dropped by 35% for addition, from 76.5% (addition level 1) to 41.5% (addition level 2), and by 49% for subtraction, from 69% (subtraction level 1) to 20% (subtraction level 2). The performance of the grade 3 students dropped by 29% for addition, from 86% (addition level 1) to 57% (addition level 2), and by 52% for subtraction, from 83% (subtraction level 1) to 31% (subtraction level 2). A related decline is evident for both grades on the fluency/automaticity scores.

*Figure 13* shows the performance by students on each of the items within the level 2 addition and subtraction subtasks.

**Figure 13. Addition and subtraction level 2 subtasks: Percentage of students with correct responses on each item, by grade**



Analysis of student performance on the addition and subtraction level 2 items shows two very clear trends. Firstly, there was a marked drop-off in performance from one item to the next as the items increased in complexity; and secondly, performance on the subtraction items was well below that of the performance on the addition items. The first item in each subtask ( $16 + 3 =$  and  $19 - 3 =$ ) involved a double-digit number (with a value less than 20) and a single-digit number, and did not require the bridging of the 10. Observing the students attempting this item during the testing showed that many students simply solved this on their fingers. The same is true for the second item, which involved a double-digit number, a single-digit number, and the bridging of the 20. The real drop-off in performance occurred from the third item onward. Although neither the third nor the fourth item involved the bridging of a 10, and even though the number range remained low, it is clear that the students did not see a connection between the addition and subtraction that they did on the level 1 items and the level 2 items. The last item involved addition and subtraction with double-digit numbers and the bridging of a 10. Although the performance on the addition item was slightly better than the performance on the matching subtraction item, it is clear that students were not able to respond to these items with the same confidence as on the level 1 items.

If, as we expect, the items in the level 1 tasks are indeed foundational to the performance of the level 2 tasks, then we might expect some positive correlation between the performances on the two different level tasks. Intuitively, we might expect that the students who performed with greater fluency/automaticity and greater

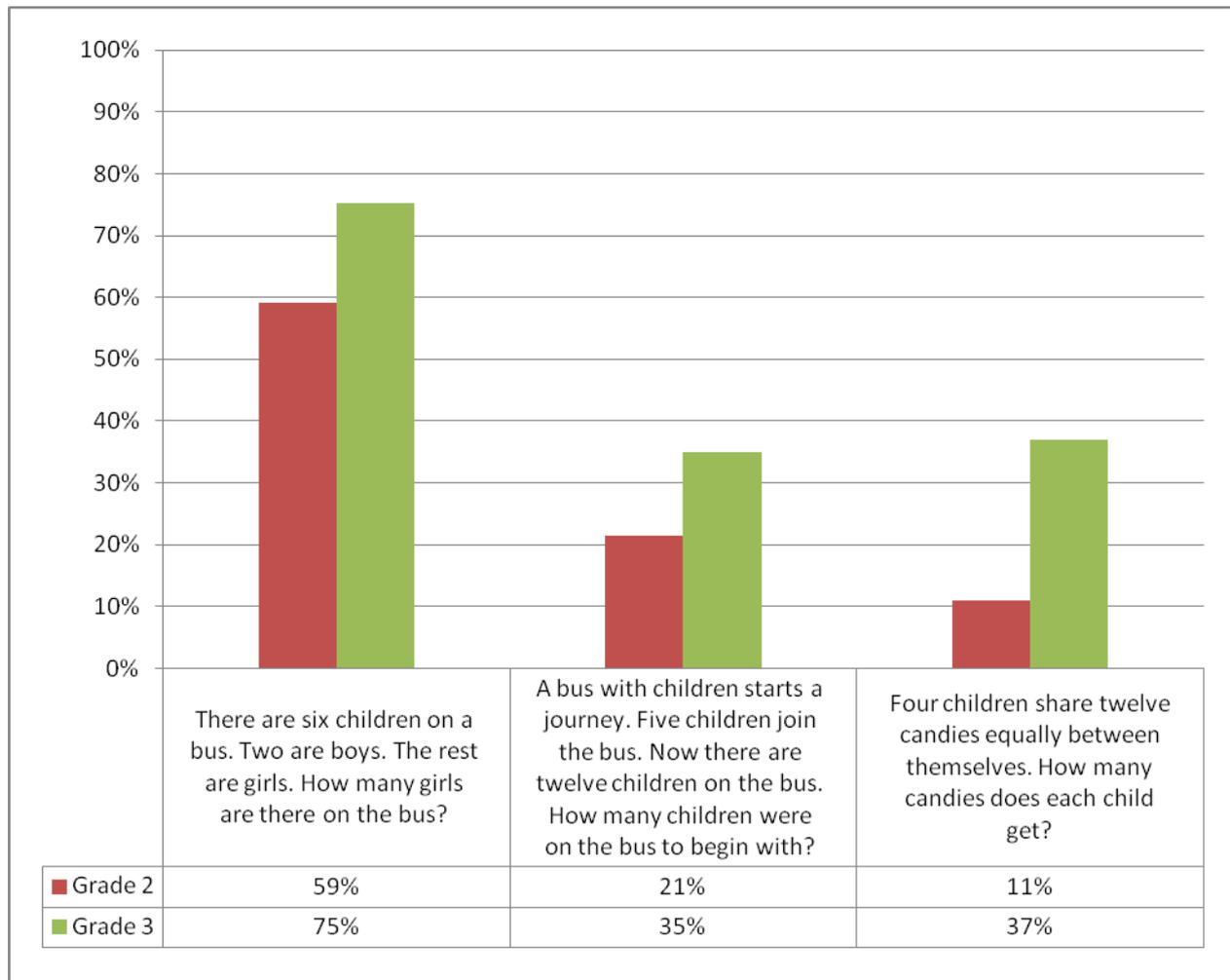
accuracy on the level 1 items would also be the students who performed well or at least better on the level 2 items. Sadly, there is no strong evidence of such a relationship in the data. One possible explanation for this, and for the apparent lack of transfer of skills from the level 1 items to the level 2 items, is that many of the students who appeared to know the answers for the level 1 items may not so much have known them in a “know and understand” sense, but instead may have memorized the answers to these questions rather than “understanding” what they were doing. Because they had only memorized these “facts,” they were unable to use them in solving problems that relied on the understanding and application of these facts.

### 3.5.6 Word Problems

When the pilot data for the Iraqi EGMA study revealed that the number identification subtask might not produce interesting data beyond the observation that most students were able to identify up to three-digit numbers with confidence, it was decided to include a short subtask to assess the ability of students to answer word problems. The word problem items assessed the ability of students to interpret a situation (presented to them in words), make a plan, and solve the problem. Therefore, the numerical values involved in the problem were deliberately small to allow for the targeted skills to be assessed without being confounded by problems requiring calculation skills that might otherwise impede performance. The situations used were designed to provoke different mathematical solutions. The word problem task was untimed, and students were allowed to use paper and pencils as well as counters to help them solve the problems. *Figure 14* summarizes the performance of the students on the word problem items, by grade.

The first word problem was a relatively straightforward comparison problem, with the structure  $2 + \square = 6$ , which could also have been interpreted as  $6 - \square = 2$ . Both the grade 2 and grade 3 students performed well on this task. The second word problem had a more complex structure in that the problem had an unknown value to which a known number was added, and the final sum also was known:  $\square + 5 = 12$ . The third problem was a straightforward sharing problem. The trend across the items and grades is twofold. On the one hand, as the complexity of the situation increased, the percentage of students answering the questions correctly decreased; on the other hand, even with the more complex situations that required quite some interpretation on the part of the student, the students in both grades performed better on these items than they did on most of the subtraction level 2 items, and even some of the addition level 2 items.

**Figure 14. Word problem subtask: Percentage of students with correct responses on each item, by grade**



The encouragement to be taken from the performance on the word problems is that it suggests quite clearly that many students were able to interpret a situation, make a plan, and solve a problem—that is, they were capable of engaging with tasks that were more conceptually demanding. This raises the question of why the students struggled with the other conceptually more demanding subtasks: missing number and addition and subtraction level 2. It is worth considering the possibility that a large proportion of Iraqi students are experiencing mathematics as a purely procedural activity, and so their focus in mathematics is on choosing and performing a procedure. When, however, they are faced with a contextually meaningful problem that does not “look like” the more typical classroom mathematics tasks, they are freed from looking for “the” procedure and instead engage with the situation and solve it.

### **3.6 How Is Student Reading Achievement Related to Achievement in Mathematics?**

As another way of examining the data, the researchers ran multiple regression models to find out whether there were any significant relationships between reading achievement and mathematics achievement. That is, students’ scores on each of the

EGRA subtasks were compared to their scores on each of the EGMA subtasks. As it turned out, all of the mathematics subtasks were significantly related to reading performance. These relationships were statistically significant, yet they ranged in size from small to moderate:

- Student performance in reading comprehension shared the most robust relationships with each of the mathematics subtasks. For example, student performance on number identification and on level 1 of the addition and subtraction subtasks explained a little more than one quarter of the variance in students' scores in reading comprehension (with  $R^2 = .23$  to  $R^2 = .31$ ).
- Students' oral reading fluency rates also had a relationship with each of the mathematics subtests (with  $R^2 = .17$  to  $R^2 = .41$ ).
- Students' performance in invented word decoding shared small to moderate relationships with mathematics achievement (with  $R^2 = .08$  to  $R^2 = 0.22$ ).
- In contrast, student performance on the listening comprehension subtask shared weak relationships with the measures of math achievement (with  $R^2 = .03$  to  $R^2 = .14$ ).
- Similarly, letter sound knowledge showed very weak relationships with mathematics achievement (with a range of  $R^2 = .01$  to  $R^2 = .07$ ).

Thus, the two subtasks that may be considered the most robust indicators of reading achievement—oral reading fluency and reading comprehension—shared strong relationships with the measures of mathematics achievement.

## 4. SSME Findings

As described in Section 2.4, the SSME gathers a wide range of information about schools. From school infrastructure and classroom resources to teaching methods and staff and student demographics, the SSME provides a holistic picture of a school ecosystem. Years of school effectiveness research have shown that understanding these factors, as well as others such as classroom management and pedagogy, student/teacher interaction, and principal- and MOE-support of school staff, are all linked to student performance and the combination of these school and student characteristics helps to explain why some schools are more successful than others.

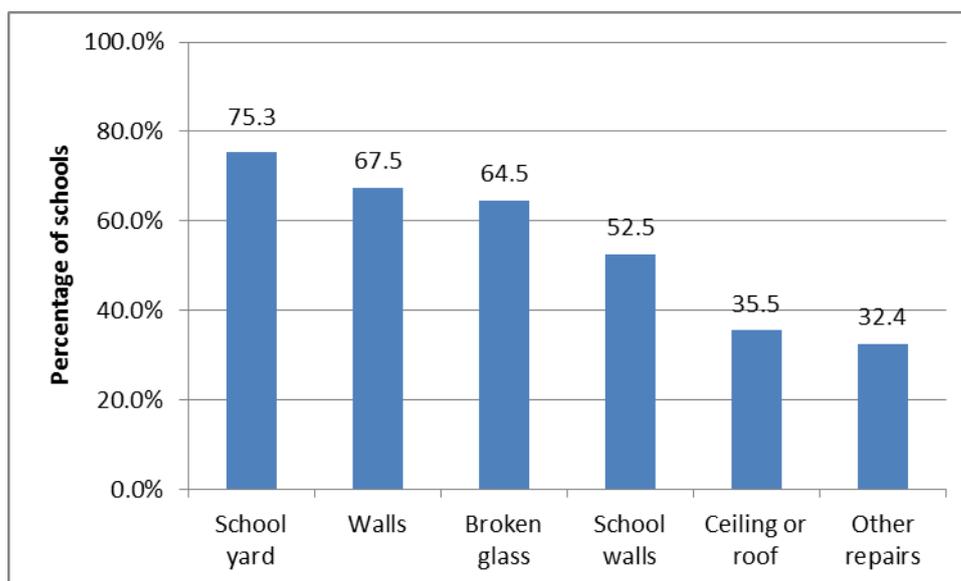
### 4.1 School Infrastructure

School infrastructure impacts the safety and comfort of students and teachers, which in turn can have an impact on attendance rates. It also serves as an indicator of resource allocations across schools and as an indicator of school management.

The years of conflict in Iraq have taken their toll on the school infrastructure in that “up to 80 per cent of school buildings in 2003 were in need of rehabilitation or major

repair.”<sup>24</sup> Our observations similarly found that 78.6% of schools were in need of repair. The frequency of the types of repairs needed is presented in *Figure 15* below.

**Figure 15. Types of repairs needed among schools reporting a need for them**



Data collection teams used their iPads to capture pictures of the schools visited. These photographs helped to document the types of repairs needed in these schools. The damaged school infrastructure has meant that many schools have to share school buildings. Fully 79% of principals reported that their school shared a building. Of these, 94.7% reported sharing the building with one other school, while 5.3% reported sharing the building with two other schools. This type of arrangement clearly will have implications for the amount of school and class time available to students during their school day. This is discussed in more detail in Section 4.12.

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<sup>24</sup> United Nations and World Bank (2003) *United Nations / World Bank Joint Iraq Needs Assessment*. UNDG: New York, as cited in associated report: Education Data for Decision Making (EdData II): Iraq Education Surveys–MAHARAT: Assessment of In-Service Teacher Training Centers in Iraq, p3.



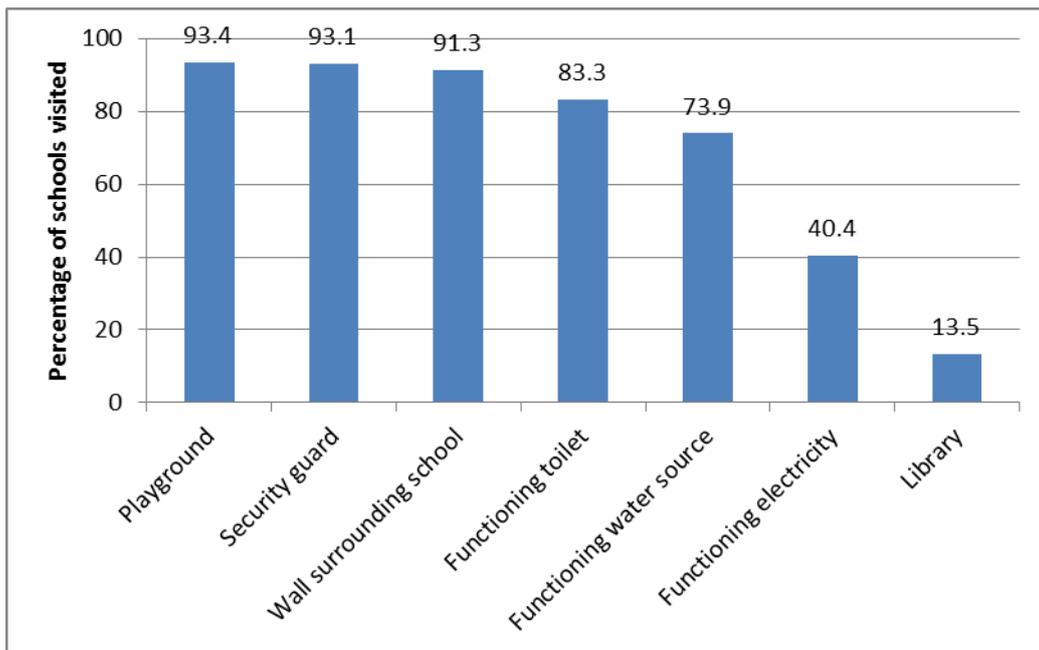
Results from the school observation instrument revealed that these Iraqi schools were well equipped in some areas and lacking in others. The images above show, from left to right, exposed electrical wiring, broken glass in classroom windows, a non-functioning water source, and a crumbling interior wall and doorway. A modest majority (60.0%) of school buildings and grounds were considered clean and neat. On the day of the assessment, fewer than half (40.4%) of schools had functioning electricity and 73.9% of schools had a functioning source of clean drinking water. Participants' responses indicated that most (83.3%) schools had one or more functioning toilets, but the flip side of this figure is that 16.7% of all schools visited had no functioning toilets for students to use. Of those with functioning toilets, researchers rated 35% as "not clean," 47% as "somewhat clean," and 18% as "very clean." Of the mixed-gender schools with toilets, 72% had functioning toilets that were only for girls, with 56 girls sharing one toilet and 65 boys sharing one toilet in these schools, on average. The availability of clean toilets and, ideally, toilets that are only for girls, is particularly important for girls' comfort and attendance at school. Thus, the availability of toilets for girls in mixed schools may be a concern. Furthermore, 20% of all girls' schools reportedly had no functioning toilets available.

Most (93.4%) schools also had a playground (see *Figure 16*). However, recall from above the observers' notations that 78.6% of the schools needed various types of repairs, which included repairs to windows, roofs or ceilings, perimeter walls, and school yards (refer to Figure 15).

In addition to the building's physical structure, the space set aside for learning materials makes a difference. For example, as discussed in some detail below, having access to reading material is crucial to students learning to read. Therefore, school or in-class libraries are important. Very few (13.5%) schools visited had a school library.

Finally, security of teachers, administrators, and students is another very important physical feature of schools. Observers looked at the availability of key security features and also asked teachers and principals how they felt about safety levels at their school. Most schools (93.1%) had a security guard, and 91.3% had a complete perimeter wall surrounding the school grounds (Figure 16). The majority of principals (98.8%) and teachers (92.2%) reported feeling safe at their schools, and 98.8% and 96.6% of principals and teachers felt that their students were safe at school. These statistics indicate that, in most cases, respondents thought that security measures were adequate.

**Figure 16. Percentages of schools with various types of infrastructure available**



## 4.2 Teachers and Principals

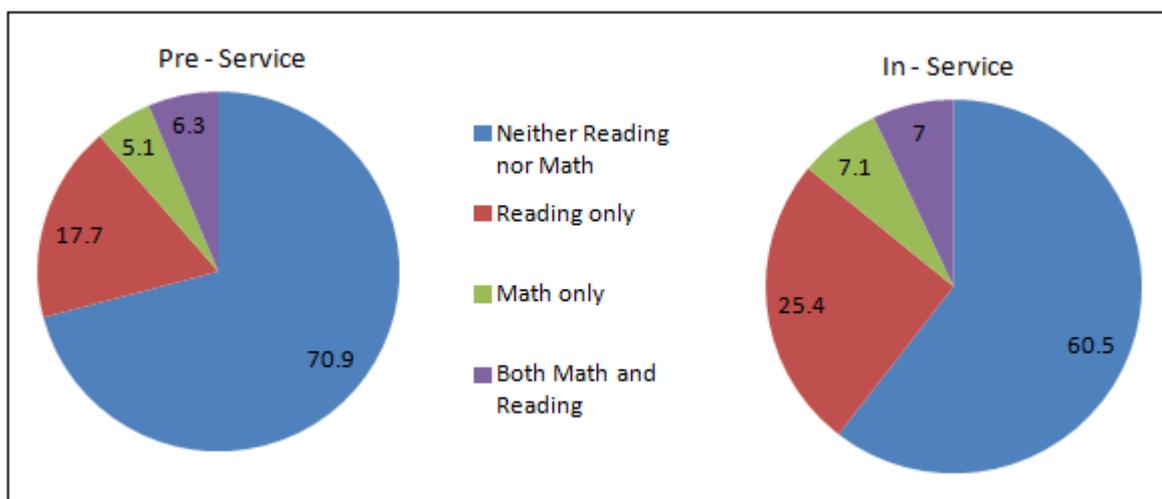
Turning to the human aspect of schools' characteristics, among the school staff, women accounted for 55.5% of principals. Having a woman as a principal was not correlated with better or worse performance in reading. In contrast, the large majority of teachers were women (84.8%). Having a female teacher was correlated with better reading fluency and comprehension but there was no significant difference on other EGRA subtasks. Students with a female teacher could read on average 3.4 more words per minute than those with a male teacher,<sup>25</sup> and scored on average 8.4% higher on reading comprehension.<sup>26</sup>

<sup>25</sup>  $p = .028$ . For the purposes of this report, only correlations with a p-value of .05 or less are considered statistically significant.

<sup>26</sup>  $p = .012$ .

Regardless of the gender of the instructional staff, teaching reading and math requires an understanding of some basic pedagogic techniques. Most (77.5%) teachers reported having a bachelor's degree. Yet in many countries, few teachers receive specific pre-service training in how to teach reading or how to teach math.<sup>27</sup> In Iraq, 70.9% of teachers had not received pre-service training in reading or math while 6.3% of teachers reported receiving *pre-service* training in how to teach reading and maths. Similarly, while 60.5% of teachers hadn't received in-service training in reading or math, only 7.0% of teachers reported receiving *in-service* training in both subjects. In **Figure 17**, we see the distribution of teachers by the training that they reported having received.

**Figure 17. Percentages of teachers reporting they had received training in how to teach reading and math**



Related to the topic of training, principals were asked whether they had received specific training in school management. Most (76.4%) said they had, and this was positively (although weakly) correlated with reading performance. Students in schools where principals had management training were able to pronounce 5.3 more letter sounds per minute, and if principals reported that they “always” implemented their management training in their school, students were able to pronounce 6.1 more letter sounds per minute.<sup>28</sup>

### 4.3 Enrollment, Class Size, and Class Composition

The average enrollment in the schools observed was 481 students, with the smallest school having an enrollment of 151 students and the largest having an enrollment of 1,545 students. The average observed classroom size was 34 students. The smallest class had 12 students and the largest had 80. A gap remained in access to primary

<sup>27</sup> K. Akyeampong, J. Pryor, J. Westbrook, and K. Lussier. (2011). *Teacher preparation and continuing professional development in Africa: Learning to teach early reading and mathematics*. Brighton, Sussex, UK: Center of International Education: University of Sussex.

<sup>28</sup> The higher number of correct letters per minute resulted from a comparison with principals who had not received management training or did not report using it;  $p = .02$  for both correlations.

schools between boys and girls among the schools sampled in Iraq, with the average ratio being 3.4 boys for every girl at the assessed mixed-gender schools. We can only imagine that the ratio of boys to girls in the mixed-gender schools increases as students progress through primary school, based on a UNESCO report statement that “In Iraq, approximately 75% of girls drop out during or after primary school.”<sup>29</sup>

#### 4.4 Student Characteristics

Among students sampled, 21% reported having attended preschool or kindergarten before primary school. This is a higher percentage than the 5.6% of 4- to 5-year-olds reported by the Ministry of Planning (2010). Kindergartens are much more prevalent in urban than in rural areas, which contain only 6% of the nation’s kindergartens and preschools.<sup>30</sup> Students who attended preschool showed slightly better performance in identifying sounds,<sup>31</sup> decoding invented words,<sup>32</sup> reading fluently,<sup>33</sup> and answering reading and listening comprehension questions.<sup>34</sup> However, it should be noted that none of these differences are statistically significant.

In Iraq, most teachers reported having some students in their class repeating the grade. Students in Iraq are given an exam at the end of the school



year. If a student is unable to pass the exam in at least three subject areas, he or she is given another opportunity to take the exam at the beginning of the next school year (after the summer holiday). If the student again fails the exam, he or she is required to repeat the grade. The average repetition rate in Iraq was 12.2% according to teacher reports, with 27.7% of teachers reporting none of their students were repeating. In

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<sup>29</sup> United Nations Educational, Cultural and Scientific Organization (UNESCO). *UNESCO Iraq Office Newsletter 2011*. Vol. 1, Issue 1, p. 4. Available from <http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Iraq/pdf/Publications/UNESCO%20Iraq%20Office%20Newsletter%20June%202011.pdf>

<sup>30</sup> UNESCO. *World Data on Education 2010/2011: Iraq*. p. 9. Available from [http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/WDE/2010/pdf-versions/Iraq.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Iraq.pdf)

<sup>31</sup> 14.8 correct letters per minute for students with preschool versus 13.3 for those without.

<sup>32</sup> 4.3 correct invented words per minute for students with preschool versus 4.15 for those without.

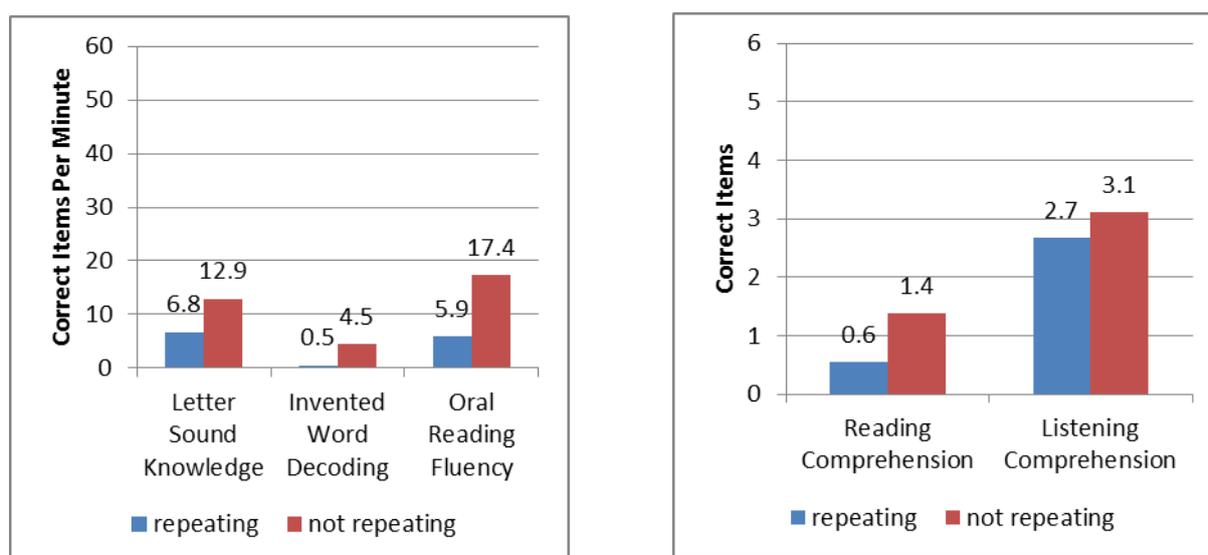
<sup>33</sup> 16.3 correct words per minute for students with preschool versus 16.05 for those without.

<sup>34</sup> 1.3 total correct answers versus 1.2 for reading comprehension and 3.2 versus 3.1 for listening comprehension.

contrast, only 7% of students reported being in the same grade as they were the previous year. The percentage of self-reported repeaters was higher among male (8.2%) than female (6.2%) students. Not surprisingly, the student-reported repetition rate was greater among grade three students (7.8%) than it was among grade two students (6.8%).

Students who reported they were repeating their grade performed worse than those who did not report repeating in all EGRA subtasks other than listening comprehension (see **Figure 18**). As would be expected, students who did not report repeating were able to identify almost 13 letters per minute and read more than 17 words per minute, compared with fewer than 7 letters per minute and fewer than 6 words per minute for those reporting repeating.<sup>35</sup>

**Figure 18. Literacy achievement for students who reported repeating**



**Note:** 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.

Grade 2 students' ages ranged from 6 to 14 years, while grade 3 students' ages ranged from 6 to 15 years. Incidence of students being over-age for their grade level in Iraq is not uncommon; in this assessment, 27% of students in grade 2 were older than 8 years and 31% of students in grade 3 were older than 9 years. In contrast, almost no student was younger than 7 years in grade 2 or younger than 8 years in grade 3. Students who could be considered over-age performed significantly worse than those enrolled in the grade most appropriate for their age.<sup>36</sup> It should be noted that most of the repeaters also were likely to have been over-age.

Another variable that sometimes correlates with performance on reading and math assessments is language of instruction versus language(s) spoken at home. Thus, students were asked what language they spoke at home. Nearly all students (97.8%)

<sup>35</sup> 12.9 clpm versus 6.8 clpm ( $p = 0$ ); 17.4 wpm 5.9 wpm ( $p = 0$ ).

<sup>36</sup>  $p = .061$ ) for clpm;  $p = 0$  for all other subtasks.

reported speaking Arabic in their homes. The remaining small percentage reported speaking Kurdish or another language at home. Students who did not speak Arabic at home had significantly weaker performance in letter sounds,<sup>37</sup> reading fluency,<sup>38</sup> and reading and listening comprehension.<sup>39</sup> This finding is not surprising as Arabic is their second language.

Nutrition can also play a role in how well a student can learn. When asked whether they had eaten breakfast before arriving at school on the day of the assessment, 84.3% of students reported that they had. Although eating a meal at home before school was not correlated with performance, having a light meal during the school day was found to contribute to stronger performance in reading. Students who reported having a light meal at school (71.9%) performed better on all EGRA subtasks.<sup>40</sup>

#### **4.5 Parental Involvement at Home and at School**

Parental involvement is traditionally closely correlated with student success at school. Parental involvement can include simply encouraging students to attend school on time and to complete their homework. Other parents may review their children's schoolwork, encourage their children to do well, and read to their children or ask their children to practice reading aloud at home. More ambitious parents may be involved in the schools' parent-teacher organization.

In Iraq, the majority of teachers interviewed reported were not satisfied with parents' involvement in their children's schoolwork and only 35.0% of teachers were satisfied with parental involvement. Students whose teachers reported being satisfied were able to read 6.1 more words per minute than students whose teachers said they were not satisfied with parental involvement.<sup>41</sup> Additionally, these students could identify 4.5 more numbers per minute and correctly answer 2.1 more level 1 addition problems and 1.7 more level 1 subtraction problems per minute.<sup>42</sup> Teachers that reported that parents reviewed their children's schoolwork was also associated with stronger reading performance.<sup>43</sup>

Parents who are aware of their students' performance are generally more involved than those who are not informed. Almost all the students (93.9%) said that their parents knew about their tests. Students who reported that their parents knew about a recent good grade read 10.1 more words per minute than students whose parents were

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<sup>37</sup> 1.5 clpm versus 13.8.

<sup>38</sup> 4.8 cwpm versus 16.3.

<sup>39</sup> 0.2 versus 1.3 for reading comprehension and 0.4 versus 3.2 for listening comprehension.

<sup>40</sup> Compared to students who did not have a light meal at school, students' average gains in EGRA scores were 4.3 more letters per minute ( $p = .004$ ), 1.4 more invented words per minute ( $p = .001$ ), 4.3 more words per minute (oral reading fluency;  $p = .009$ ), 0.5 more correct reading comprehension answers ( $p = 0$ ), and 0.8 more correct listening comprehension answers ( $p = .001$ ).

<sup>41</sup>  $p = .008$ .

<sup>42</sup>  $p = .003$ ;  $p = .003$ ;  $p = .008$ .

<sup>43</sup> Students whose teachers reported that "most" parents review school work were able to read 9.6 more words per minute ( $p = 0$ ) and correctly answer 3.7 more level 1 addition problems per minute ( $p = 0$ ) and 2.9 more level 1 subtraction problems per minute ( $p = .001$ ).

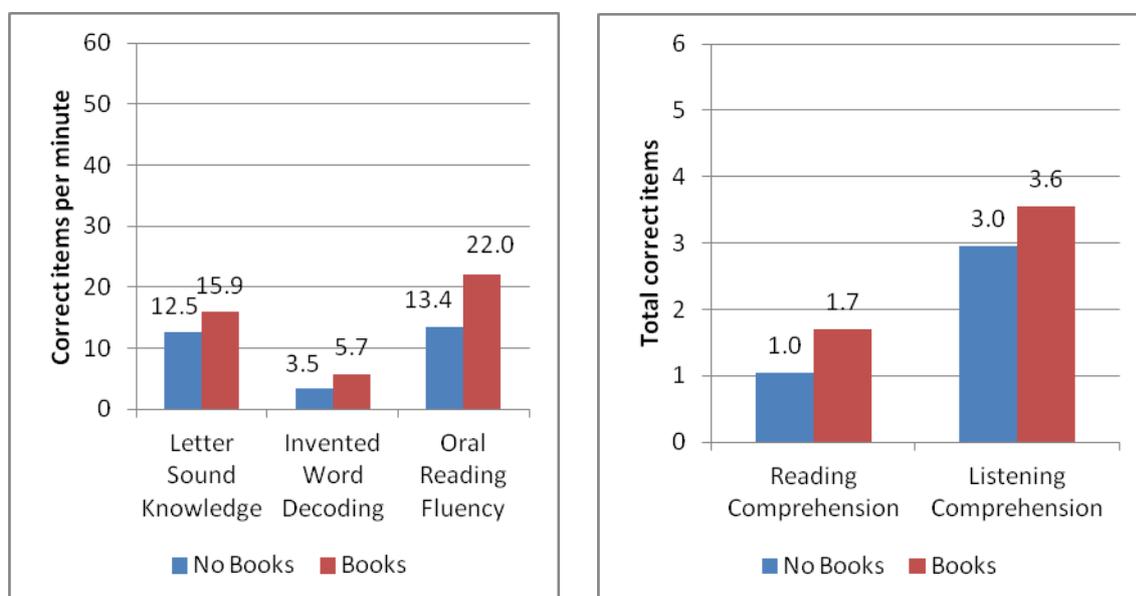
unaware of their grades.<sup>44</sup> Additionally, these students could identify 9.5 more numbers per minute and answer 4.2 more level 1 addition problems.<sup>45</sup>

Most (83.8%) students said their primary caregiver could read. Having a literate caregiver was positively correlated with reading performance, with these students being able to read 5 more words per minute than students whose caregiver was illiterate.<sup>46</sup>

Access to reading materials outside of school has clear implications for students' reading development, because Iraqi students who reported that they had books (other than textbooks) available at home showed greater mastery of letter-sound knowledge, more accurate decoding of invented words and real words in passages, and better comprehension of written and oral passages (see **Figure 19**).<sup>47</sup>

However, most (71.3%) students said they had no books to read at home other than their textbooks.

**Figure 19. Literacy achievement for students by access to books at home**



**Note:** 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. The graph on the right shows student performance on the tasks that were untimed and had a restricted range for possible scores.

In addition, students were asked how often they read to someone at home, and also how often someone at home read to them. Responses are presented in **Figure 20**.

There was a fairly broad distribution of student-reported at home reading practice. A

<sup>44</sup>  $p = 0$ .

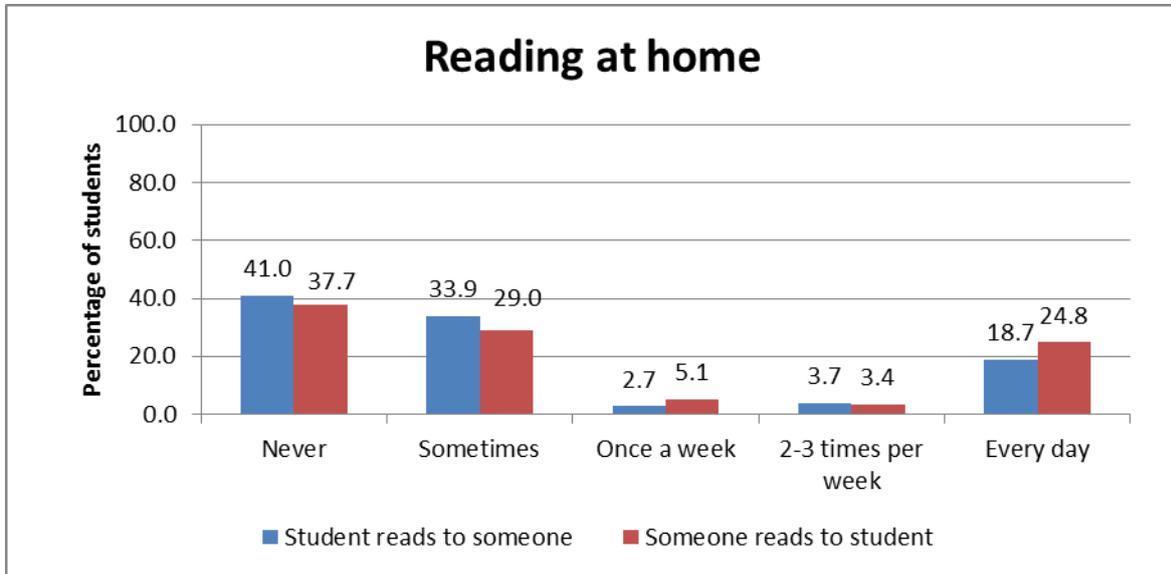
<sup>45</sup>  $p = .023$ ;  $p = .038$ .

<sup>46</sup>  $p = .01$ .

<sup>47</sup> The difference in means between students who reported having access to books at home and those who did not was statistically significant for all the EGRA performance measures ( $p = .001$  for letter naming;  $p = .000$  for invented word reading;  $p = .001$  for oral reading fluency;  $p = .000$  for reading comprehension;  $p = .003$  for listening comprehension).

substantial share of the students (41.0%) reported that they never read to someone at home, and 37.7% reported never being read to by a person in their home (see **Figure 20**), a slightly smaller share reported reading sometimes (33.9 and 29.0 respectively). An even smaller share (18.7%) reported reading aloud at home “every day,” and 24.8% reported that someone read to them at home “every day.”

**Figure 20. Frequency of reading at home**

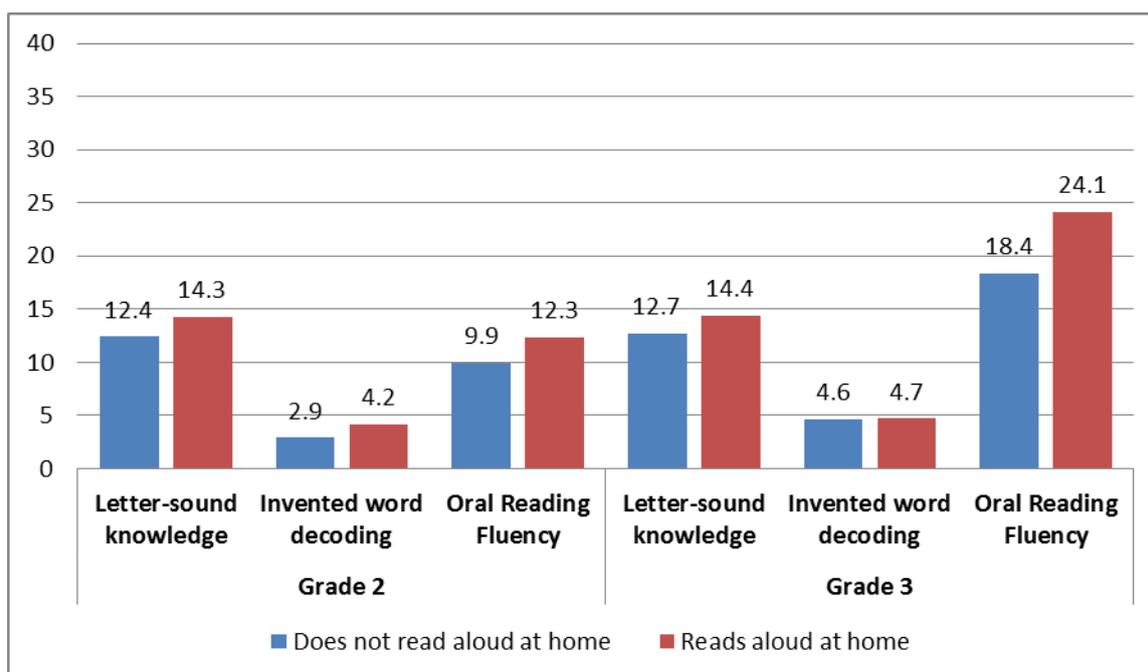


As with the presence or absence of reading materials outside of school, practicing reading at home was similarly associated with better performance on the reading assessments. For example, students who reported reading at home at all were able to read on average 2 more words per minute in grade 2 and 6 more words per minute in grade 3 than those who never read at home,<sup>48</sup> and those who said they read at home every day read 5.7 more words per minute than those who reported never reading at home.<sup>49</sup> Therefore, reading at home frequently is essential to better performance. **Figure 21** shows performance levels on the timed subtasks for students who reported that they did or did not read at home.

<sup>48</sup> The difference in reading performance among those reading at home and those not was statistically significant for letter sounds and invented words; it was significant for oral reading fluency ( $p = .094$  at grade 2;  $p = .019$  at grade 3).

<sup>49</sup>  $p = .01$ .

**Figure 21. Student performance and reading at home**



Participation in a parent-teacher association (PTA) at the school is another example of parental involvement. Of the schools sampled, 99.4% had a PTA, according to the principal. When asked about how frequently the PTA met during the past year, 65.4% of principals responded with “every 2-3 months,” 30.4% said “once a year,” and 3.5% said “once a month.” Principal satisfaction with the level of support provided by the PTA was split, with 56.1% of principals reporting that they were satisfied, and 43.9% reporting that they were unsatisfied.

Finally, a fair percentage of students (14.3%) reported being late at least one day the previous week, which may be a reflection of a lack of parental involvement as well.

#### **4.6 Availability and Use of Pedagogic Materials**

Pedagogic materials are essential for both students and teachers. Teachers need textbooks and reference materials to help them properly follow the MOED’s curriculum. Teaching instruments such as blackboards, chalk, writing materials, and student registers are fundamental teaching tools. Similarly, students need to have access to textbooks, reading books, exercise books or slates, math manipulatives,<sup>50</sup> and writing utensils.

The availability of resources for Iraqi students is high. Almost all students were observed to have an Arabic language textbook (98.3%) and math textbook (98.4%). Similarly, assessors found that on average, 97% of students in sampled classrooms possessed a language exercise book, 98.2% had a math exercise book, and 98.5% of students had a writing utensil during the day of the visit.

<sup>50</sup> “Manipulatives for counting” refers to the use of small objects, such as stones or sticks, that teachers may use with students to help them master rational counting and/or to understand and solve simple addition or subtraction problems.

On average, teachers were less well-equipped with basic teaching tools. Although nearly all had at their disposal a blackboard/whiteboard (99.5%) and pen or pencil (94.2%) in the classroom, fewer had chalk/markers (66.8%) for writing on the board. Reference materials were less prevalent: 53.4% of teachers had a language reference book, and 51.2% had a math reference book in the classroom. During observed reading and math lessons, textbooks and the blackboard were used to the near exclusion of other materials, although during math lessons teachers also used math manipulatives, such as small objects to assist students with counting or solving problems, or shapes, in the case of geometry.

## **4.7 Reading Materials Available in School**

Having ready access to a variety of reading materials (i.e., in addition to textbooks) is essential for emerging readers. Without this access, students miss opportunities to develop and practice reading skills, expand their vocabulary, and strengthen their understanding of the language. Reading materials can range from magazines and booklets of short stories in classrooms to readers and books at home. Availability of reading materials in Iraqi schools was found to be low. As was previously mentioned, just 13.5% of schools visited had a library. Having a library was positively correlated with reading performance; students in these schools were able to read 7 more words per minute than students in schools without a library.<sup>51</sup> Additionally, only 4.6% of classrooms were observed to have books other than textbooks for students to read.

## **4.8 Lesson Content**

### **4.8.1 Reading Lesson**

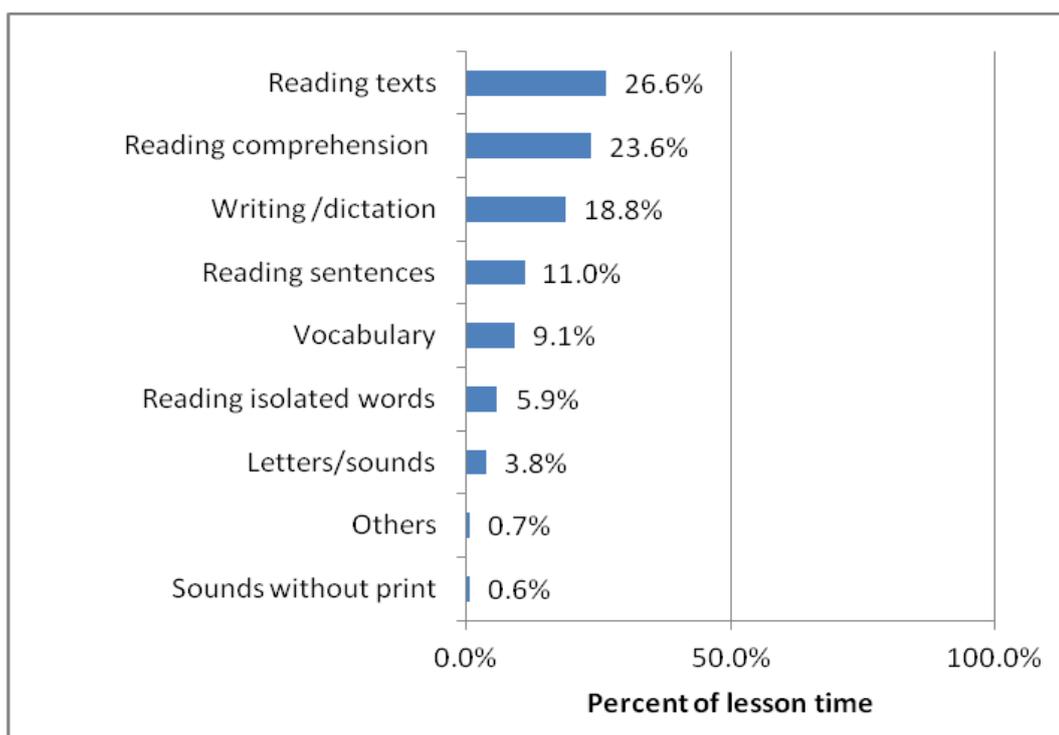
In addition to noting instructional materials used during lessons, classroom observers were also asked to note the instructional content of the lessons taught. This information helps researchers understand whether or not the lesson content matches appropriately with students' understanding of the subject matter. During reading lessons (*Figure 22*), content was focused primarily on reading texts (38.0%), understanding them (33.8%), and writing (26.9%). A fair amount of lesson time was also spent on reading sentences (15.8%) and vocabulary (13.0%).<sup>52</sup>

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<sup>51</sup>  $p = .023$ .

<sup>52</sup> Classroom observers were permitted to select multiple items at once during the reading and math lessons, given that instructional content areas can overlap or teachers may focus on multiple content areas at once.

**Figure 22. Instructional content – Reading lesson**



Less time was spent on more basic, foundational literacy skills, such as reading isolated words (8.4%), letter sounds (5.4%), and sounds without print (0.8%). Given the EGRA scores discussed in Section 3.2, it is evident that many of these students, even by grade 2 or 3, still had not mastered their knowledge of letter sounds or their ability to decode new words. Thus, the relatively small amount of time that teachers were spending working on these foundational skills, combined with the extensive amount of time focused on more advanced reading skills, indicates that teachers may be moving ahead in the curriculum despite their students' mastery or understanding of the material.

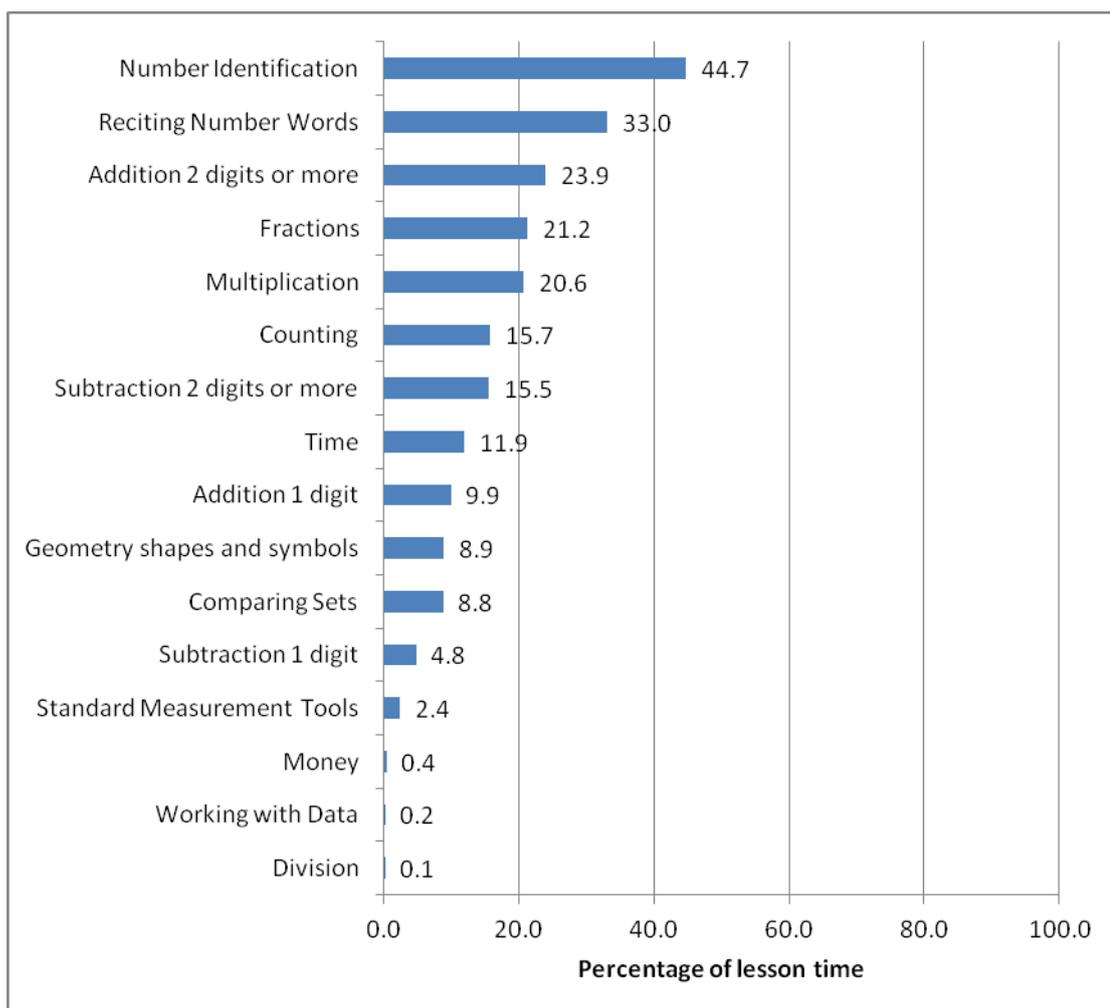
Two other categories of observation during the reading lesson were teacher focus and teacher action. Teachers primarily focused on the entire class (74.2% of the time), and spent most of the remainder of the time focused on individual students (17.6%). Teachers spent the largest proportions of lesson time listening to students and speaking to the class, followed by monitoring students. This would seem to indicate teachers who pay close attention to their students' learning progress. To teachers' credit, almost no time was spent on non-instructional activities during lessons. Observers noted that during the reading lesson, students spent the largest proportion of lesson time listening to or watching the teacher, followed by individual students reading out loud. Students spent very little time reading silently or asking questions.

#### **4.8.2 Mathematics Lesson**

As with the reading lesson, classroom observers took note of what was happening during a grade 2 math lesson in each school visited. They observed a wide variety of mathematical concepts across the classrooms visited (see **Figure 23**). The largest proportion of time was spent on number identification (44.7%), followed by reciting

number words (33.0%), 2-digit addition (23.9%), fractions (21.2%), and multiplication (20.6%). The relative ease with which students were able to perform the number identification subtask of the EGMA may be explained, at least in part, by the amount of practice they get during lessons. Within these classrooms, less time was spent on counting (15.7%), which is when students are most likely to learn number patterns—such as counting by twos, fives, or tens—a skill that would have contributed to their performance on the missing number subtask of the EGMA. As was discussed in section 3.4, students performed well (in terms of accuracy, if not speed) on level 1 addition and subtraction subtasks. Teachers were observed to spend more time on higher level addition (23.9%) and subtraction (15.5%) problems during lessons.

**Figure 23. Instructional content – Math lesson**



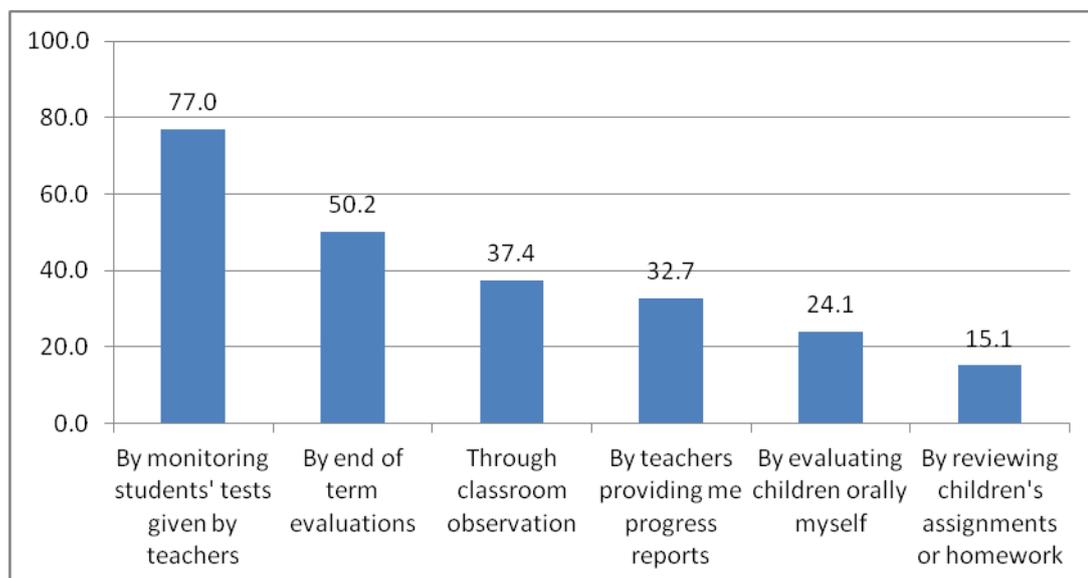
As with the reading lesson, observations of teacher action during math lessons again indicated that these teachers spent most of the lesson time asking questions of the class, and listening to and monitoring students, and very little time on non-instructional activities. Students in math lessons spent most of the time answering questions and listening to the teacher. Students also frequently did work at the blackboard.

## 4.9 Student Evaluation and Pedagogical Oversight

Evaluation of students by both teachers and principals is an extremely important component of effective teaching because it provides crucial insight into how students are progressing in their understanding of the lesson material throughout the school year.

Principals reported applying a number of direct and indirect approaches to evaluate how students were doing academically (see *Figure 24*). Approaches included classroom observation, oral evaluation of students, review of student work, and student assessments. Students in schools where principals said they review assignments or homework or review progress reports performed better on the oral reading fluency subtask of the EGRA as well as on the number identification subtask of the EGMA.<sup>53</sup>

**Figure 24. Evaluation approaches, as reported by principals**

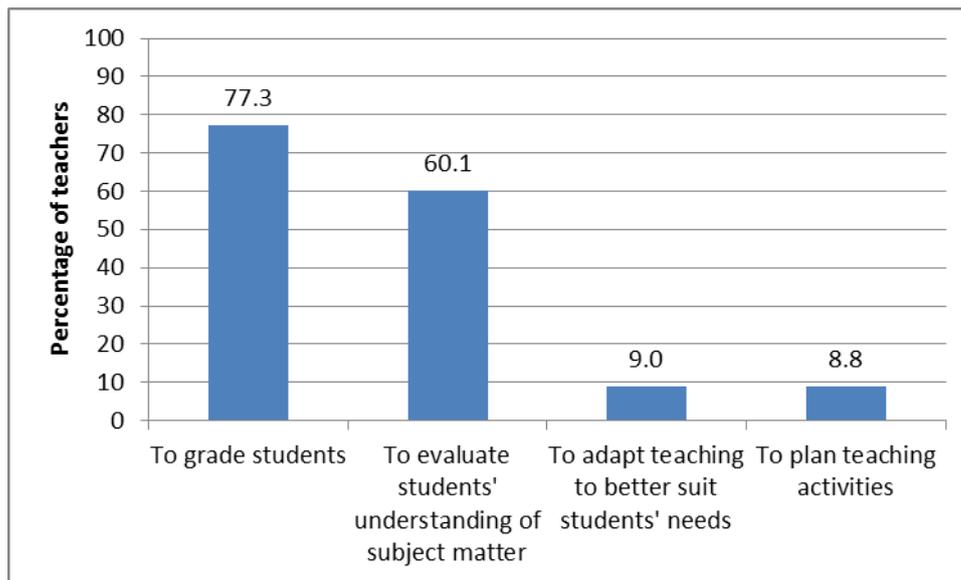


Teachers reported using oral evaluations (83.8%), written tests (82.1%), and homework (53.8%)<sup>54</sup> as their primary means of monitoring their students' academic progress, with a small minority also citing the end of year test (5.7%). Teachers were then asked how they use the results of oral or written tests in their teaching (see *Figure 25*). Although a majority of teachers reported using test results to evaluate students' understanding of subject matter (60.1%), very few said they used the information they had learned about their students to adapt their teaching (9.0%) or to plan activities (8.8%) accordingly. This finding would help to explain why so little classroom time is spent on foundational reading skills when students do not appear to have mastered them.

<sup>53</sup> +7.5 cwpm,  $p = .002$ ; +4.1 cnumidpm,  $p = .003$ .

<sup>54</sup> The majority of students (91.8%) reported that their teacher checked their homework during the last week.

**Figure 25. Use of test results, as reported by teachers**



This finding challenges the potential conclusion from the classroom observation of teacher action (discussed above), in which teachers were observed to spend a fair amount of reading lesson time listening to and monitoring their students. Although such close attention would seem to lead to teachers adjusting their approach as they notice students struggling in specific areas, nevertheless, as the evaluation data suggest, this attention may similarly fail to correspond to adjustments in teaching method or content as the school year progresses.

In addition to evaluating students, researchers also interviewed teachers and principals about administrative oversight of teachers. All teachers reported that the principal checked their lesson plans, with most saying weekly (60.6%) or daily (32.5%). All principals also reported checking teacher lesson plans, but with more saying daily (46.4%) than weekly (33.6%). Principals' oversight of lesson plans is positively correlated with all EGRA subtasks and several EGMA subtasks.<sup>55</sup> Finally, principals were asked how often they visited classrooms to observe lessons. The largest proportion (54.4%) said they went every 2-3 months.

Collectively, these findings show that teachers and principals are intentionally measuring students' academic progress, and principals are monitoring students' learning outcomes as well as teachers' lesson plans and teaching practices. However, taking into consideration these findings with both the classroom observation data discussed earlier as well as student performance on the EGRA and EGMA results, there appears to be a disconnect between what teachers are teaching (to which principals are agreeing), and what students are successfully learning. This disconnect may stem, in part, from the fact that teachers do not generally use assessment results to adjust their teaching.

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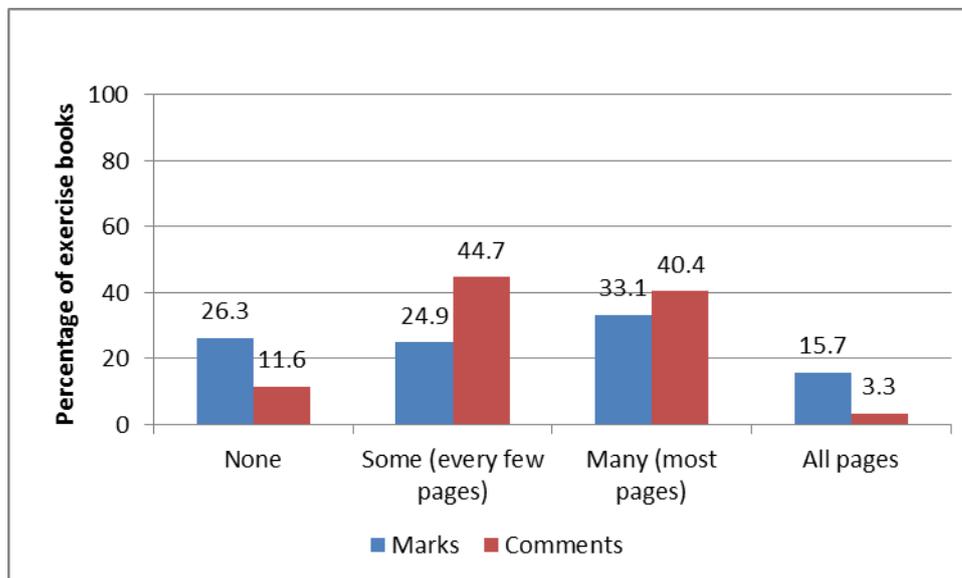
<sup>55</sup> For example, students whose principals said they check teachers' lesson plans every week were able to read 12.5 more words per minute ( $p = 0$ ) and identify 8 more numbers per minute ( $p = 0$ ) than those whose principals reported checking lesson plans only twice per year.

#### 4.10 Teacher – Student Interaction

How teachers interact with students is an important component of the classroom learning environment. Teacher feedback facilitates students’ ongoing improvement and better ensures that they will achieve curricular goals. Teachers’ corrective feedback helps students to correct errors, clarify misconceptions, and learn more effectively. Assessment teams’ evaluation of teacher-student interaction includes marks and comments written into exercise books, responses to students’ homework and class work, responses to weaker students, and responses to negative student behavior, such as bullying.

The majority of teachers observed did provide students with feedback in their exercise books, based on observation (**Figure 26**). Most books examined were found to have marks (73.7%) or comments (88.4%) written by the teacher. Those students whose exercise books had marks on all of the pages (15.7% of books examined) read, on average, 7.1 more words per minute than those students whose books had no marks.<sup>56</sup> Similarly, as previously reported, the majority of students (91.8%) reported that their teacher checked their homework during the last week.

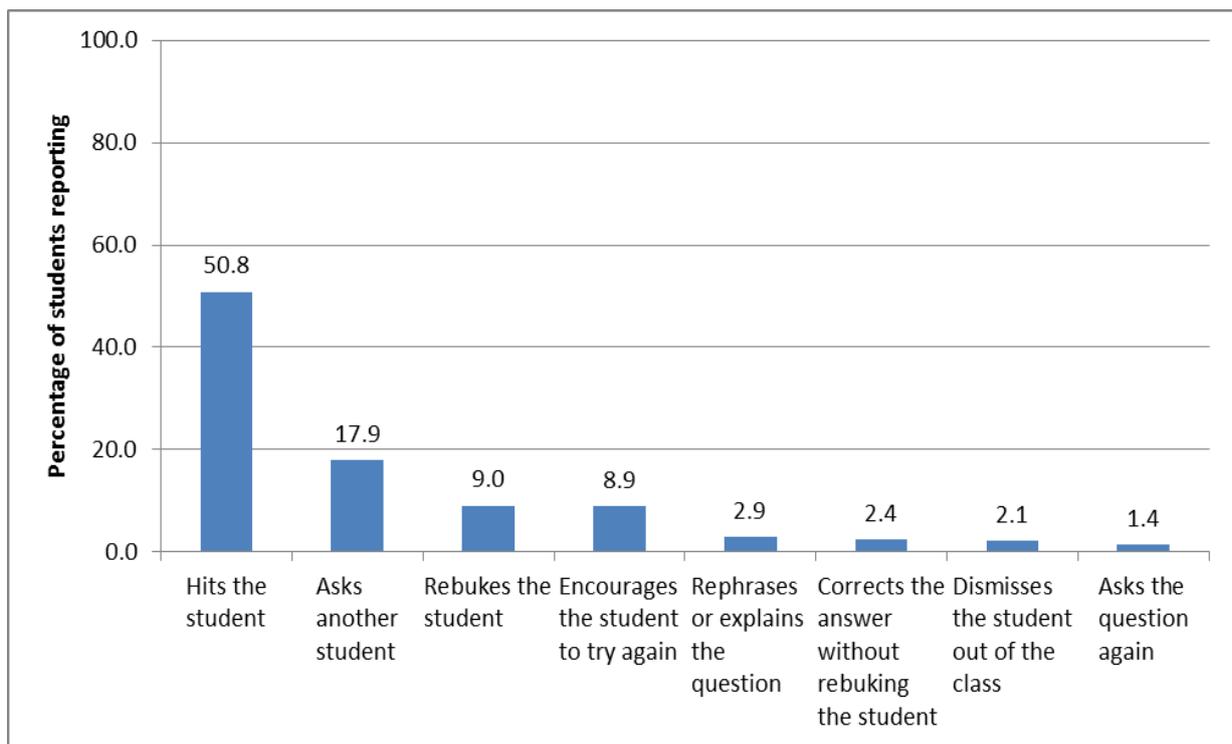
**Figure 26. Teacher feedback in student exercise books**



<sup>56</sup>  $p = .042$ .

Student questions occupied very little time (3.7% in reading and 5.5% in math) during the lessons, which may indicate reluctance on the part of the students to ask questions.<sup>57</sup> Students reported that when they were unable to answer a question correctly during a lesson, their teachers usually hit them (50.8%), asked another student (17.9%), or rebuked them (9%), although some teachers did encourage them to try again (8.9%). Overall, the majority of students (62.7%) reported that their teachers responded punitively when they answered questions incorrectly, while 37.3% reported constructive responses from their teachers. This may explain, in part, students' reluctance to answer or ask questions. Students were also asked what their teacher did when they do well on an assignment or test. Most students said their teacher praised them (81.2%). A few students (7.3%) said their teacher did nothing, and 3.3% said their teacher gave them a small gift.

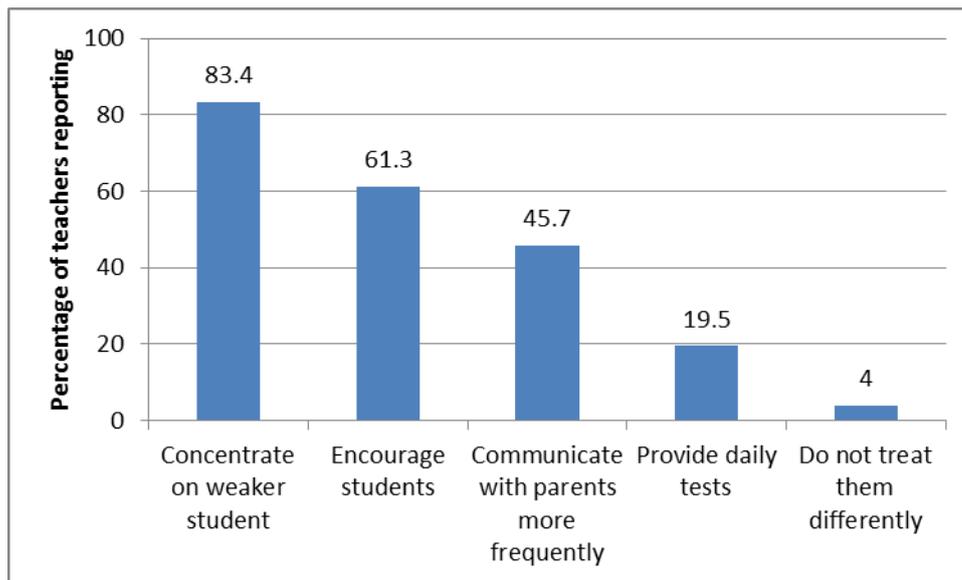
**Figure 27. Teacher response to student mistakes**



Teacher-student interaction also includes the ways in which teachers respond to and manage challenges in their classrooms. Teachers were asked how they responded to weaker students in their classes, as well as how they dealt with bullies. **Figure 28** indicates teachers' responses to how they treat weaker students. The most common solution proposed by teachers was to concentrate their efforts more on weaker students (83.4%). Other common responses included “encourage students” (61.3%) and “communicate more frequently with parents” (45.7%).

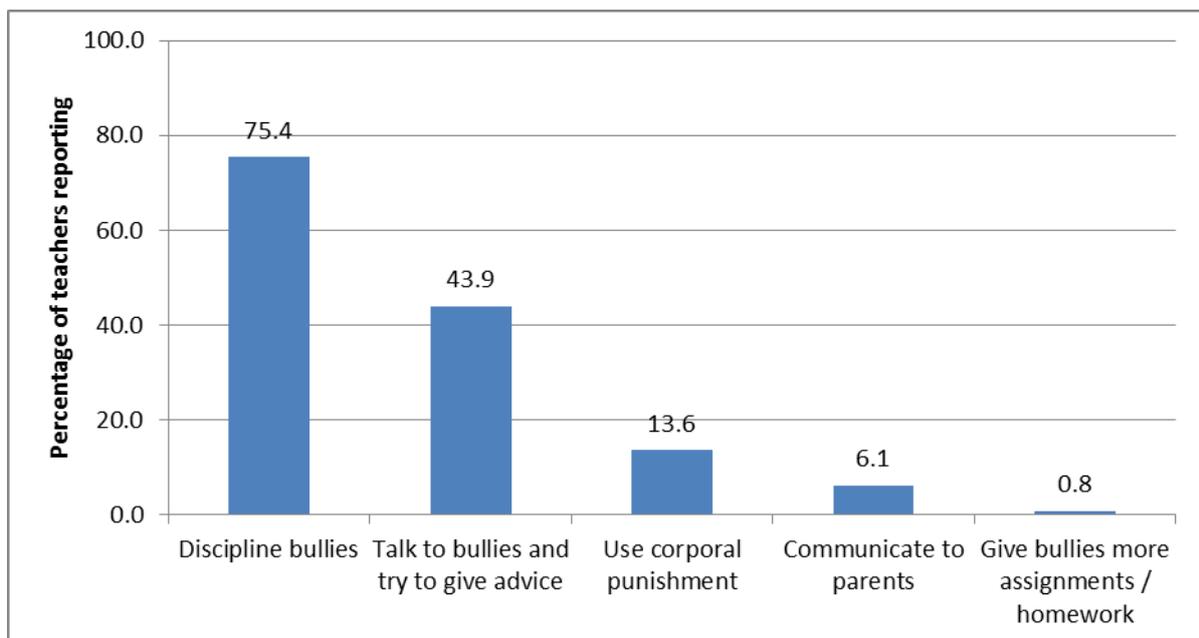
<sup>57</sup> On the importance of creating positive learning environments where students feel unafraid to ask questions, see F. Pajares (1996), Current directions in self-efficacy research, in M. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement*, Vol. 10 (pp. 1–49). Greenwich, Connecticut, USA: JAI Press.

**Figure 28. Teacher responses to weaker students**



Teachers also were asked how they dealt with aggressive students or bullies in the classroom (*Figure 29*). The majority (75.4%) reported that they disciplined bullies, but a fair amount (43.9%) said that they talked to bullies and tried to give advice.

**Figure 29. Teacher responses to bullies**

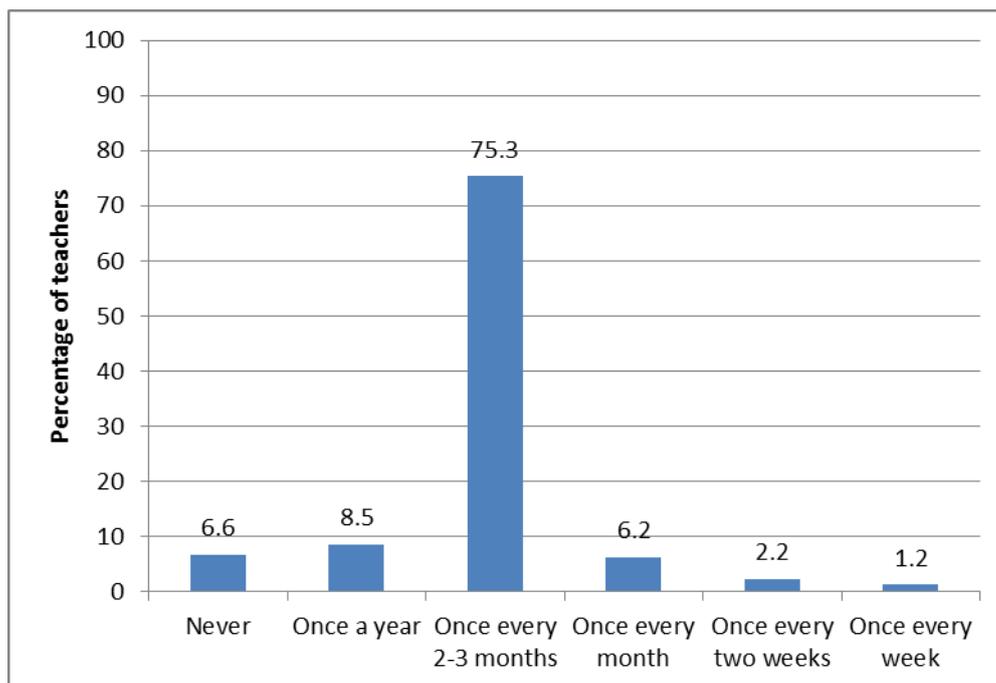


### 4.11 Administrative Support

The extent to which administrators and teachers are supported by the Ministry of Education can be a factor in the success of the school. Researchers asked principals and teachers several questions about the involvement of the MOED. When asked about the responsiveness of the MOED to their requests for support, 25.3% of principals reported that the MOED was “always responsive,” 49.8% said some “sometimes,” and 24.9% said “not at all” responsive.

Similarly, teachers were asked how frequently a MOED education supervisor visited the school. The largest proportion of teachers (75.3%) reported receiving a visit “every 2-3 months” (*Figure 30*).

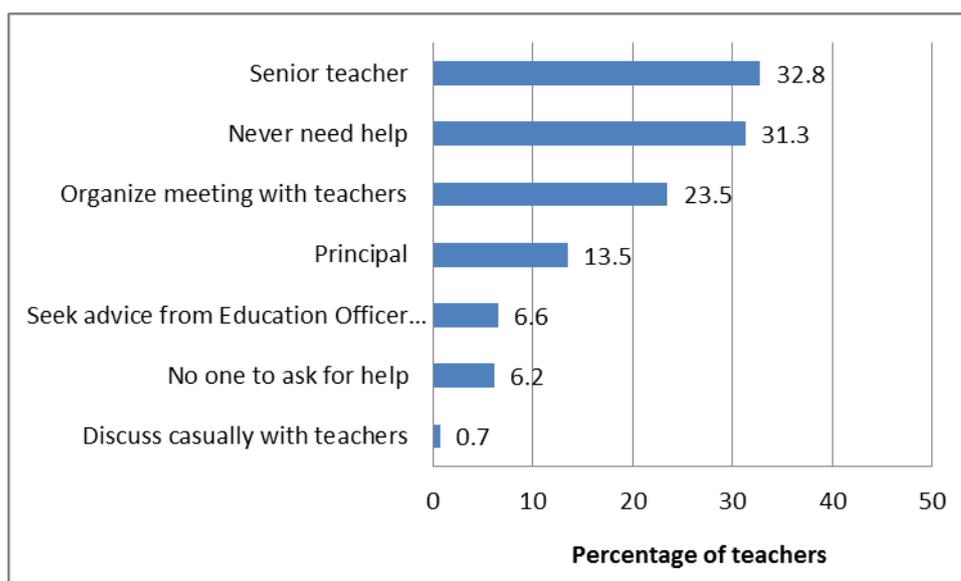
**Figure 30. Frequency of visits by Ministry of Education supervisors**



Teachers were asked whom they consulted for help if they needed it (*Figure 31*). Many (32.8%) said they went to a senior teacher for help. A few (13.5%) reported asking the principal. Interestingly, teachers who reported that they consulted the principal for help when they needed it were 12 times more likely to teach in a strong-performing classroom.<sup>58</sup> Teachers seeking out the advice of a principal would tend to indicate a stronger principal so this finding is quite logical.

<sup>58</sup> As measured by the invented words subtask,  $p = .006$ .

**Figure 31. Teachers' responses about whom they consult for help**



#### **4.12 Time on Task**

Even when good teaching techniques are applied, students cannot succeed if they are not given sufficient learning time at school. Time-on-task is, therefore, an important indicator in determining school effectiveness. Time-on-task in the classroom includes such teacher activities as verbal instruction, lecture, and leading a discussion or group activity. Classroom management and discipline are not considered on-task activities. Students are spending time on-task when they are reading aloud or silently, working on mathematics problems, engaging in a discussion or debate, practicing a skill, and doing seatwork. They are off-task if they are interacting socially or are otherwise disengaged.

Several SSME questions are designed to provide information from which to calculate time on-task, such as what time the school day starts, the length of the school day, the number of days during the school year that the school is closed, absenteeism, and the amount of time set aside for assembly and breaks. Additionally, the classroom observation instrument (previously mentioned) provides crucial insight into how lesson time is spent. Thus, rather than relying on self-reporting by teachers regarding time on-task, researchers were able to make direct observations in the classroom.

##### **4.12.1 Length of the school year**

The official school year in Iraq lasts a minimum of 32 weeks. A 5-day school week results in 160 days of instruction per year. Unscheduled school closings appear to be a relatively uncommon occurrence, with a total of only 14% of schools reporting to have been closed on a non-holiday during the school year. Principals reported school closings ranging from 1-15 days, with 9 being the average number of days of closure. Taking school closings into account brings the average number school days in session

down to 151 days per year. This is one of the shortest school calendars we have encountered in our recent survey work.

#### 4.12.2 Length of the school day

As noted in Section 4.1, 79% of principals reported that they share their school building with another school. This has implications for the length of the school day. Table 10 presents the total number of lesson hours that students should be receiving every week according to the 2010 curricular guidelines of the MOED. Among grade 2 and 3 students, daily lesson time ranges from 3.6 hours per day for grade 2 students in double shift schools to 4.2 hours for grade 3 students in single shift schools.

Assuming a 32 week school year, official annual instructional time for these two grades ranges from 576 to 672 hours. With an average school closing rate of 9 days the range for instructional hours decreases, becoming 543 to 634 hours.

**Table 10. Hours per subject, week, and grade for single and double shift schools**

Subject	Double Shift Schools		Single Shift Schools	
	Grade 2	Grade 3	Grade 2	Grade 3
Islamic	2.7	2.0	3.0	2.3
Arabic	6.0	5.3	6.8	6.0
English	0.0	2.0	0.0	2.3
Mathematics	4.0	4.0	4.5	4.5
Science	2.0	2.0	2.3	2.3
Art	1.3	1.3	1.5	1.5
Physical Education	1.3	1.3	1.5	1.5
Song & Music	0.7	0.7	0.8	0.8
<b>Total lesson time</b>	<b>18.0</b>	<b>18.7</b>	<b>20.3</b>	<b>21.0</b>
Daily hours of class time	3.6	3.7	4.1	4.2
Annual instructional time assuming 32 weeks per year	576	597	648	672

Source: UNESCO "Word Data on Education: Iraq",<sup>59</sup> - Total weekly, daily, and annual instructional time based on author calculations.

59 UNESCO. "Word Data on Education 2010/2011: Iraq." Vol. 7. p.12.

[http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/WDE/2010/pdf-versions/Iraq.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Iraq.pdf)

When principals were asked about the duration of their school day, they reported an average school day of 4.3 hours (*Table 11*; note that this is for all grades at the school and not specifically for the grades assessed). Schools that do not share the building enjoy a slightly longer school day with an average of 4.6 hours per day.

Understandably, the school day becomes shorter when the building is shared across multiple schools or shifts. When school breaks such as assembly time and lunch are taken into consideration, the instructional time is reduced further. Time spent in classrooms is 3.6 hours per day on average, but can be as low as 2.5 hours per day when 3 schools or shifts are sharing the same building.

**Table 11. Average school and class hours by number of schools sharing the school building**

	School Hours	Class Hours
<b>1 school</b>	4.6	3.8
<b>2 schools</b>	4.2	3.6
<b>3 schools</b>	2.9	2.5
<b>Average</b>	4.3	3.6

To calculate the average number of hours available for teaching and learning during an entire school year, analysts multiplied 3.6 hours in the average school day by 151 days in the average school year, for a total of 544 hours of available instructional time during the school year. Considering the extreme case, in which 3 schools share a school building and the average length of the school day is 2.5 hours, the total becomes just 378 hours annually. These figures all fall well short of the 850–1,000 minimum number of annual instructional hours recommended by the World Bank and UNESCO through the Education for All (EFA) initiative.<sup>60</sup> As will be discussed below, class time spent on non-instructional activities, teacher and student absenteeism, and tardiness can all work to further erode annual instructional hours.

#### **4.12.3 Teaching time during observed lessons**

Observed reading and math lessons were largely focused on learning. During both the reading and the math lessons, students were virtually never observed off-task. In fact, students were only off-task during 0.1 % of the reading lesson and 0.8% of the mathematics lesson. Similarly, the amount of time that teachers were observed to be involved in non-instructional activities, such as classroom management, was very minimal. This was particularly true during reading lessons, where only 0.5% of time was spent off-task. Teachers were observed to be off-task more during the math lesson, with 3.4% of time spent on non-instructional activity. Given the very limited

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<sup>60</sup> EFA Global Monitoring Report, 2005, p. 149.

amount of class time available for teaching and learning, continuing to ensure such productive use of time will be important.

#### **4.12.4 Student and Teacher Absenteeism and Late Arrival**

Student absenteeism can have an obvious correlation with low performance. When asked about the typical number of absent students, teachers reported an average absenteeism rate of 4.9%. The average observed absenteeism rate recorded by researchers on the day of the assessment was 11%. Student absence (as reported by teachers) is negatively correlated with student performance.<sup>61</sup> When students were asked, 28% reported being absent one day or more in the previous week, with most (64.8%) citing sickness as the reason.

Attendance records are crucial, as they keep teachers and the school administration informed and aware of absenteeism issues. Just under half (49.3%) of teachers reported keeping a student attendance register. However, among teachers that did keep an attendance register, examination of the registers indicated that most updated their registers on a daily basis, with 88.7% having updated their register the very day of the visit. All principals reported keeping student attendance registers. When registers were examined, 36.0% were found to be updated daily.

As with student absenteeism, teacher absenteeism has been shown to be a major factor in school ineffectiveness and low student performance in some countries. Surveys in several countries show that schools are routinely missing a quarter of their staff, with rural schools faring even worse.<sup>62</sup> When asked, principals reported an average teacher absenteeism rate of 8.9% on the day of the visit, with rates ranging from 0 (among 36% of schools) to 43% of teachers in a single school. A fair percentage (28.0%) of students reported being absent from school on one or more days in the preceding week. The majority (67.4%) of these students were absent due to illness. Another 16.7% were absent due to an unspecified emergency and 7.7% of the absent students said that they were absent because students or teachers at their school were treating them badly.

Late arrival undermines students' learning time and recurrent late arrival is associated with lower performance. The impact of late arrival is particularly strong in cases where the length of the school day or shift is short. Teachers reported average student tardiness rates ranging from 0% to 33% with an average rate of 2.2%. When asked, 14.3% of students reported being late to school on one or more days in the preceding week.

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<sup>61</sup> Students read an average of 4 words less per minute when their teachers that report having one or more students absent on a normal day.

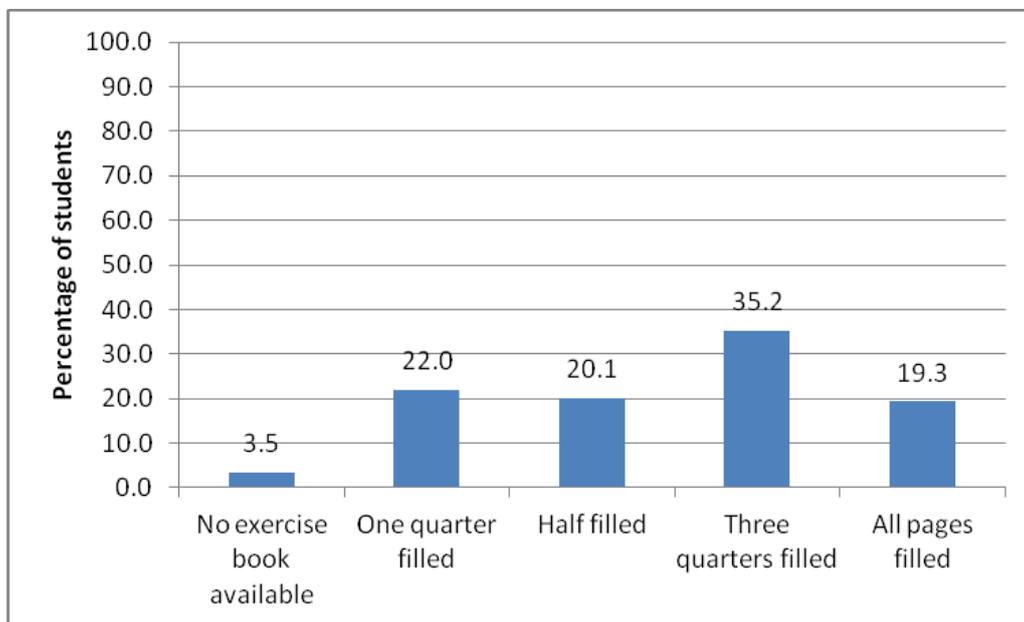
<sup>62</sup> Abadzi, Helen. 2007. *Absenteeism and Beyond: Instructional Time Loss and Consequences*, World Bank Policy Research Working Paper No. 4376, p. v.

Late arrival of teachers is another issue that can erode the learning time for students in school. Principals' reports indicate extremely low levels of late arrival among teachers. Most principals (93%) reported that there were no late arrivals of teachers on the day of the assessment, and 97% of principals had teacher attendance registries. These registries were updated on a daily basis. The average principal-reported late arrival rate was a mere 0.2%.

#### 4.12.5 Curriculum Coverage

Time on-task will impact the amount of material a teacher is able to cover during the school year and the amount of work students are able to accomplish. Students' exercise books can provide us with an indication of how much learning time they have had during the school year. As part of every student interview, assessors noted what proportion of the exercise book had been completed. Analysis revealed that there was a wide range in exercise book completion rates, with some students not having an exercise book and others having exercise books with only a quarter of the pages used, and others still having completely full exercise books (*Figure 32*).

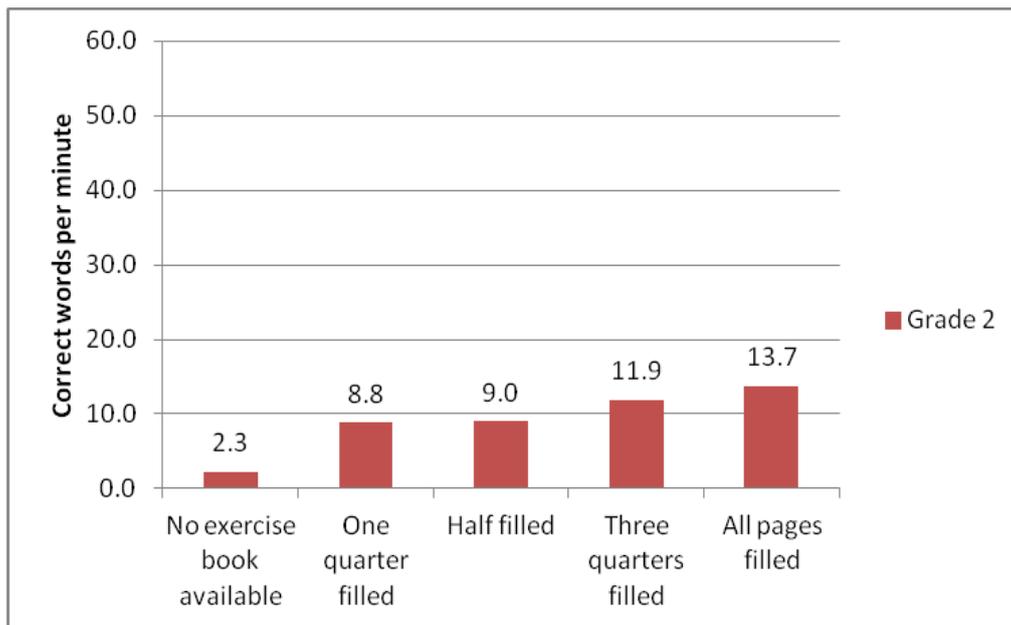
**Figure 32. Student exercise book coverage**



Student exercise book coverage was positively correlated with student performance.<sup>63</sup> The pattern of this correlation is much more marked in grade 2, where students with full exercise books were reading an average of 4.9 more words per minute than those students who only had a quarter of their exercise books completed (*Figure 33*).

<sup>63</sup> p=.001

**Figure 33. Oral reading fluency by exercise book coverage in grade 2**



## 5. Conclusions

The aim of the present study was to measure the early reading and mathematics skills among grade 2 and grade 3 students in a sample of Iraq's public schools. The study also sought to identify school and student characteristics that were related to student performance. The EGRA and EGMA instruments, adapted in Iraq by Iraqi and international subject area specialists.

### 5.1 EGRA

The results of the EGRA in Iraq revealed that by the end of grade 3, the majority of students had not yet acquired sufficient foundational skills to read fluently with comprehension. Specifically, overall students showed limited knowledge of the letter sounds, a fundamental and critical skill for learning to read. Iraqi students, on average, could identify 13.4 correct letter-sounds per minute (see Table 4). More than one quarter of the students (26.5%) were unable to correctly identify the sounds associated with any of the letters. Given students' difficulties in identifying letter sounds, it is not surprising that students could not sound out, or decode, unfamiliar words, reading on average 4.7 invented words at the end of grade 3. Indeed, close to half the students (47.5%) could not decode a single invented word. Taken together, these findings suggest that students 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.

Because the students had not acquired the basic building blocks for reading, their oral reading fluency scores were low. The students read on average 16.0 correct words per minute (Table 4), with 25.9% of the students unable to read a single word. As a consequence, reading comprehension was low, with students answering on average

1.3 questions, and with only 0.2% of grade 2 students and 7.3% of grade 3 students being able to correctly answer at least four of the five reading comprehension questions (Figure 7). Students performed better in listening comprehension, answering 3.1 questions out of 6, on average.

These findings suggest that Iraqi students need greater instructional support, not only in their word recognition and decoding skills, but even in the more basic ability to recognize and associate sounds with letters.

## **5.2 EGMA**

The EGMA instrument for Iraq consisted of two distinctly different kinds of subtasks: one type that assessed more procedural knowledge (number identification, quantity discrimination, and addition and subtraction level 1), and a second type that assessed a more conceptual understanding/application of the procedural knowledge that had been measured in the other tasks (missing number, addition and subtraction level 2, and word problems). The overriding trend evident across the EGMA results and at both grade levels is that the students did better on the more procedural items and less well on the items that required them to understand and apply their (procedural) knowledge. This probably reveals more about how students experience the teaching and learning of mathematics than it does about the innate abilities of the students.

There are two different views of the subject. On the one hand, mathematics can be regarded as the “*memorization of facts, rules, formulas, and procedures needed to determine the answers to questions*”; on the other hand, mathematics can be regarded as a “*meaningful, sense-making, problem-solving activity*.” The former has been the predominant view for many generations, and its deficiency is evident in the ongoing struggle of young children to make sense of and succeed in the study of mathematics.

The Iraqi EGMA results suggest that memorization plays a large role in the way that students know and learn mathematics. The fact that, throughout the study and across the grades, there was a trend of students doing well on the items that relied on procedural knowledge—knowledge that can also be memorized—and then struggling on the tasks and items that required both the understanding and the application of what should have been procedural (rather than memorized) knowledge, points strongly in this direction.

## **5.3 SSME**

The SSME findings revealed areas of strength as well as areas needing improvement in Iraqi schools. Despite the need for infrastructure repairs in many schools, the vast majority of principals and teachers said that they and their students are safe. Teachers and students do not suffer from a shortage of textbooks and exercise books, and although the school year is short and the necessity of shift schools serves to compress the time available for learning, little of that time is spent off-task on non-instructional activities.

While teachers were skilled at staying on-task during the school day, researchers found that few teachers planned their lessons according to their students' academic progress or understanding of material, based on assessment or evaluation results. Such adaptation may be discouraged, or teachers may not know how to teach in response to the specific literacy or numeracy needs of their students. This may be explained in part by a lack of targeted pre-service training in how to teach reading and math, as reported by half of the teachers interviewed.

Teacher feedback is an essential part of teaching and student learning. Teacher feedback in student exercise books varied widely, but students whose teachers provided marks or comments on all pages were found to be stronger readers. Additionally, teacher responses to student mistakes during class can reveal teacher-student dynamics. The majority of students interviewed reported punitive, rather than constructive responses from their teachers when they answered a question incorrectly, with half reporting being hit by their teacher. Students rarely ask questions during lessons suggesting that students either lack the opportunity to ask questions or that they are reluctant to do so.

Classroom observations of reading lessons showed that the largest proportions of lesson time were spent on advanced reading activities, but very little time was spent on more basic reading skills. Conversely, observations of math lessons revealed that relatively large amounts of lesson time were spent on basic concepts—number identification and reciting number words—and students did fairly well on the EGMA in this area. Additionally, teachers were observed to mix these basic elements of mathematics with higher level (more conceptual) concepts such as addition and subtraction with 2 or more digits, fractions, and multiplication. Less time was spent on single digit addition and subtraction—problems that students showed moderate ability to perform on the EGMA.

Reading practice at school and at home is another important factor that the SSME investigated. Although most schools lacked a library, students at those that did have a library were stronger readers. Similarly, while having books at home other than textbooks was uncommon, students who did have books and practiced reading at home were stronger readers. Not surprisingly, parental involvement in their children's learning is associated with better student performance.

Finally, the short school year in Iraq, combined with short school days due to the shift system or shared buildings, leaves insufficient annual hours for learning.

## 6. Recommendations

For TASK 1, Analysis of Student Performance in Reading and Mathematics, Pedagogic Practice, and School Management, the EGRA and EGMA results reveal more about how students experience the teaching and learning of reading and mathematics than about students' innate abilities. The TASK 1 results suggest that memorization plays a large role in the way that students acquire knowledge. The fact that, throughout the study and across the grades, students tended to perform better on the items that relied on procedural knowledge—knowledge that can also be

memorized—and then struggled on the tasks and items that required both the understanding and the application of what should have been procedural (rather than memorized) knowledge, points strongly toward memorization.

The study also revealed that the vast majority of teachers report a lack of targeted pre-service or in-service training in how to teach reading and mathematics.

In addition the survey found that:

- Few teachers planned their lessons according to their students' academic progress or understanding of material, based on assessment or evaluation results.
- Teacher feedback in student exercise books varied widely, but students whose teachers provided marks or comments on all pages were found to be stronger readers.
- The majority of students interviewed reported punitive, rather than constructive, responses from their teachers when they answered a question incorrectly, with half reporting being hit by their teacher.
- Students rarely ask questions during lessons, suggesting that students either lack the opportunity to ask questions or that they are reluctant to do so.

**Recommendation 1:** Teacher training (both pre-service and in-service) needs to focus on the development of early grade-specific skills in teaching reading and mathematics.

Teacher training, in general, needs to focus on developing a more child-centered pedagogy.

Teacher training needs to focus on developing both the subject content knowledge and the pedagogical content knowledge.

**In support of Recommendation 1:**

- The early grade education community in Iraq needs exposure to current international best practices for early grade teaching approaches both for reading and for mathematics. The policy dialogue revealed that while there is a general understanding for the need to do things differently and possibly even a desire for doing so, there appears to be a general lack of understanding of how this can be accomplished. More generally, there may be a need for the adoption of a more child-centered approach to teaching.
- Both pre- and in-service training needs to adopt more learner-centered approaches, to involve more demonstration and practice situations and to involve coaching/mentoring approaches.
- An analysis of current international curriculum developments for early grade teaching approaches both for reading and for mathematics is needed. This may lead to a need for revising curricular content, to bring the curriculum in line with more current understandings of children's early development both for reading and for mathematics.
- The curriculum revisions envisaged above will lead to a need for revising teaching and learning materials, e.g. textbooks, etc.

- The survey also found that while teachers conducted regular assessment, the assessment had little impact on how they teach.

A total of 79% of principals in the survey reported that their school shared a building. Of these, 94.7% reported sharing the building with one other school, and 5.3% reported sharing the building with two other schools. In schools that did not share their school building, the average number of instructional hours was found to be 3.8 hours per day, while in situations where the school building was shared by three schools, the instructional time was found to be 2.5 hours per day. Across all schools surveyed, the average school day was found to be 3.6 hours in length. When those average school hours per day are combined with an Iraqi school year of 32 weeks in length, the survey concluded that total school hours per year (instructional time) vary between 378 and 543 hours per year. This number of hours falls well short of the World Bank and United Nations Educational, Scientific, and Cultural Organisation (UNESCO) recommendation. The World Bank and UNESCO, through the Education for All (EFA) initiative, have recommended that the minimum number of instructional hours should be 850–1,000 per year.

Additionally, the survey found that there is a need for infrastructural repairs in most schools.

**Recommendation 2:** There is a need to increase the number of instructional hours per year. Although increasing the number of instructional hours per year is necessary, it is not sufficient—as much attention needs to be given to *what happens during these instructional hours* (see Recommendation 1) as to *providing these hours*.

**In support of Recommendation 2:**

- There is a need for an infrastructural development program. On the one hand, this program needs to address the shortage of schools across the country. On the other hand, this program needs to address the general state of disrepair across all schools.
- Reading practice at school and at home plays an important role in developing reading skills. The survey, unsurprisingly, found that students at schools with libraries were stronger readers. Yet only 13.5% of the surveyed schools had a library, and only 4.6% of classrooms were observed to have any books available to students other than their textbooks. Similarly, while having books at home other than textbooks was uncommon, students who did have books and practiced reading at home were stronger readers. Not surprisingly, parental involvement in their children’s learning is also associated with better student performance.

**Recommendation 3:** There is a need to increase children’s access to reading materials, both at school and at home.

Parents need to be more involved in the schooling of their children.

**In support of Recommendation 3:**

- Access to reading materials (in addition to textbooks) needs to be increased at schools—a library campaign may well be needed.
- Access to reading materials (in addition to textbooks) needs to be increased in homes. A national campaign that makes parents aware of the role that they play in their children’s education in general, and specifically encouraging them to provide more reading materials for their children, is needed.

# **Annex A: EGRA and EGMA Instruments**

## أداة تقييم مهارات القراءة في المرحلة الابتدائية: نموذج التعليمات للقائم بالاختبار 2012

### تعليمات عامة

المهم هو أن تبني علاقة فيها اللعب والمرح مع التلميذ الذي سيخضع للتقييم بحيث تبدأ بمحادثة بسيطة حول مواضيع تهتم التلميذ (انظر المثال أدناه). ليحس بأن هذا التقييم - تقريباً - مثل لعبة سيتمتع بها وليست بشيء صعب. من المهم جداً أن تقرأ فقط بصوت عال وبوضوح وبمهمل مضمون المربعات.

على نفسي عندي ..... الأطفال، عمرهم .....؛ عندي في الدار.....، صباح الخير. اسمي \_\_\_\_\_ أسكن في \_\_\_\_\_. أريد أن أتكلم معك  
الرياضة التي أمارسها .....، [الخ]

1. تكلم لي عن نفسك وعن عائلتك؟ [انتظر الجواب؛ إذا كان التلميذ غير متحمس للكلام، ضع عليه السؤال رقم 2. إذا  
تكلم بارتياح، انتقل للفقرة الموالية: الموافقة الشفهية].

2. ماذا يعجبك أن تعمل خارج المدرسة؟

### الموافقة الشفهية

- اسمح لي أن أقول لك لماذا أنا معك اليوم. أنا أشتغل مع وزارة التربية الوطنية وأحاول أن أفهم كيف يتعلم الأطفال القراءة. تم اختيارك بالصدفة مثل في لعبة.
- أحب أن تتعاون معي في هذه العملية. ولكن إذا لم ترد المشاركة، أنت حر.
- سنلعب لعبة القراءة. سأطلب منك أن تقرأ بعض الحروف وبعض الكلمات و قصة قصيرة بصوت عال.
- سأستعمل هذا العداد لأقيس الوقت الذي تحتاجه في القراءة.
- هذا ليس امتحاناً وليس له أي تأثير على نقطك المدرسية.
- سأسألك بعض الأسئلة الأخرى عن عائلتك. مثلاً بأي لغة تتكلم في البيت وبعض الأمور عن عائلتك.
- لن أكتب اسمك. لن يتعرف أي أحد على أجوبتك.
- مرة أخرى، أنت غير ملزم بالمشاركة إذا لم تكن ترغب في ذلك. وإذا بدأنا ولم ترد الجواب على أي سؤال، فلا بأس.
- هل لديك سؤال؟ هل أنت مستعد؟

لا  نعم  إذا حصلت على الموافقة الشفهية للطفل ضع علامة في هذا المربع  
(إذا لم تحصل على الموافقة، أ شكر الطفل وانتقل للطفل الذي بعده واستعمل نفس الاستمارة)

ح. اسم الأستاذ	أ. تاريخ التقييم
	ب. اسم القائم بالاختبار
	ج. اسم المدرسة
ط. سن التلميذ	د. المحافظة
ي. جنس التلميذ 1 ○ = طفل 2 ○ = طفلة	هـ. الدائرة/التربية
ك. وقت الشروع: _____ : _____ (حسب نظام 24 ساعة)	و. مواقيت حضور التلاميذ 1 ○ = يوم كامل 2 ○ = الصباح 3 ○ = بعد الظهر
	ز. المستوى الدراسي 1 ○ = الثاني 2 ○ = الثالث

## التعرف أصوات الحروف [القسم]

أظهر للطفل ورقة الحروف الموجودة في كتيب التنشيط وقل له:

هذه ورقة مملوءة بالحروف الأبجدية العربية. اقرأ الأصوات التي عرفتتها وليس اسم الحرف ولكن صوته.

مثلا ، صوت هذا الحرف [أشّر إلى الحرف َ] هو " َ " مثل في كلمة " هَرَبَ " .

و الآن لنقم بتمرين: قل لي صوت هذا الحرف [وأشّر لحرف َ]:

إذا كان جواب الطفل صحيحا، قل : جيد، صوت هذا الحرف هو " َ " .

إذا كان جواب الطفل غير صحيح، قل : صوت هذا الحرف هو " َ " .

لنجرب حرفا آخر: قل لي صوت هذا الحرف [أشّر لحرف َ]:

إذا كان جواب الطفل صحيحا، قل : جيد، صوت هذا الحرف هو " َ " .

إذا كان جواب الطفل غير صحيح، قل : صوت هذا الحرف هو " َ " .

هل فهمت المطلوب منك؟

عندما أقول لك "لنبدأ"، ركز جيدا و اعطني صوت الحروف بسرعة قدر ما تستطيع. سنبدأ من هنا ونكمل بهذه الطريقة [أشّر للحرف التالي لحرف المثال وتتبع معه بأصبعك على السطر الأول بالكامل إذا وصلت إلى حرف لم تتعرف عليه سأقوله لك. وإلا سأبقى صامتا أستمتع إليك. مستعد؟ لنبدأ.

شغل العداد عندما يبدأ التلميذ الحرف الأول. تتبع معه بالقلم وضع **بوضوح** علامة / على أي خطأ. عندما يصلح الطفل خطاه وحده

أحسب الإجابة صحيحة. إذا فاتت وعلمت الإجابات الخاطئة التي يصححها التلميذ بنفسه على أنها خطأ، علم الحرف بدائرة وواصل

التمرين. **ابق صامتا**، إلا أن تعطي الأجوبة كالتالي: حين يتردد الطفل لمدة ثلاث ثواني، إعطه صوت الحرف. أشّر للحرف التالي وقل :

"**لنكمل من فضلك**". ضع علامة على الحرف الذي صححته للطفل. إذا أعطاك الطفل اسم الحرف عوض الصوت، إعطه صوت الحرف

وقل : ["من فضلك إعطني صوت الحرف"]. هذا التذكير يمكن أن يكون مرة واحدة فقط خلال التمرين.

بعد مرور 60 ثانية، ستقول 'لنتوقف'. ضع العلامة ( [ ) على آخر حرف قرأه.

قاعدة التوقف المبكر: إذا وضعت علامة على جميع الأجوبة في السطر الأول على أنها خطأ ولم يتدارك التلميذ أي خطأ من أخطائه، قل "**شكرا**" و أوقف التمرين. ضع علامة في المربع الموجود في أسفل الصفحة وانتقل للتمرين الذي بعده.

مثال: 1 2 3 4 5 6 7 8 9 10

10	9	8	7	6	5	4	3	2	1	
َ	ي	ة	و	س	ـ	غ	ف	د	ك	(10)
م	ة	ئ	و	م	ت	ي	ئ	ـ	ش	(20)
ل	ص	ل	ـ	ـ	ب	ـ	ئ	ـ	خ	(30)
ه	ب	ل	ح	ئ	ن	ـ	ل	ح	ج	(40)
ل	ع	ك	ـ	ز	ت	ـ	ر	ـ	ـ	(50)
ر	ـ	ث	ت	ج	ـ	ف	ـ	ط	ذ	(60)
ـ	ق	خ	ذ	ـ	ئ	ـ	ل	غ	ك	(70)
ط	ـ	س	ي	ص	ظ	ز	ه	ث	م	(80)
ق	ئ	ـ	د	ـ	ئ	ئ	ر	ر	ش	(90)
ض	ب	و	ئ	ع	ـ	ـ	م	ن	ر	(100)

الوقت الذي بقي في العداد في نهاية التمرين (عدد الثواني) :

ضع علامة في هذا المربع إذا أوقفت التمرين حيث الطفل لم يجب على أي سؤال في السطر الأول :

## قراءة كلمات غير مألوفة: 2 القسم

أظهر للطفل صفحة الكلمات المخترعة في كتيب التنشيط وقل :

هذه بعض الكلمات المخترعة. اقرأ أكبر عدد من الكلمات ما استطعت. لا تقرأ حرفاً حرفاً. هذه الكلمة المخترعة " الفلأط " .

الآن نقوم بالتمرين التالي: اقرأ هذه الكلمة [أشر إلى كلمة شلاميد]:

إذا قال الطفل "شلاميد" ، قل له :حسن جدا ، " شلاميد"

إذا لم ينطق الطفل " شلاميد " بشكل صحيح، قل : هذه الكلمة المخترعة هي " شلاميد"

نحرب الآن كلمة أخرى: اقرأ من فضلك هذه الكلمة [أشر إلى كلمة " ناسب"]:

ناسب " ناسب " ، قل : حسن جدا ، " إذا قال الطفل "

" ناسب " بشكل صحيح، قل : هذه الكلمة المخترعة هي " ناسب إذا لم ينطق الطفل "

حين أقول لك "نبدأ" ركز جيدا واقرأ الكلمة بأقصى سرعة ممكنة . اقرأ الكلمات الموجودة بالصفحة. ابدأ بالسطر الأول. سابقي صامتة أستمع اليك إلا اذا احتجت مساعدتي. هل فهمت المطلوب منك. مستعد؟ نبدأ.

شغل العداد حين يقرأ التلميذ الكلمة الأولى. تابع معه بقلمك وضع بوضوح علامة / على أي خطأ. حين يصلح الطفل خطأ وحده أحسب الإجابة صحيحة. إذا سبق أن وضعت علامة /على الإجابات الخاطئة التي يصلحها التلميذ بنفسه على أنها خطأ، أحط الحرف بدائرة وواصل التمرين. التزم الصمت ، الا في الحالات التالية يمكنك الإجابة: حين يتردد الطفل لمدة ثلاث ثواني، اقرأ أنت الكلمة. أشر للكلمة التي تليها وقل : "تابع من فضلك". ضع علامة على الكلمة التي تم تصحيحها للطفل.

بعد مرور 60 ثانية، قل 'نتوقف'. ضع العلامة ( ) على آخر كلمة قرأها الطفل.

**قاعدة التوقف المبكر:** إذا كانت جميع الأجوبة في السطر الأول خاطئة ، قل "شكرا" وأوقف التمرين. ضع علامة في المربع الموجود في أسفل الصفحة وانتقل للتمرين التالي.

ناسب شلاميدُ الفلأطُ : أمثلة

5	4	3	2	1	
سَدْعُ	فِصَا	رَوَكُ	سُوهِشْ	أَفَالُ	(5)
عَنْ	أُضِيحُ	أَسْرَأُ	مَجِكُ	يَاشْتُ	(10)
وَجِيبُ	أَشْبِقُ	الْقُسْنُ	سَطِيفُ	كُنْتُ	(15)
جُمْدَةٌ	حُنْبُ	مَادُوا	حَنَّ	طَذَا	(20)
ذُلَى	وَضَعُ	قِرَا	أَشِيْمَةُ	أَسِلُ	(25)
يَاسِبُ	رَمِيلُ	إِلْقَامُ	مَعَكُنُ	شَا	(30)
زَبْدَبُ	أَضِي	مَرَبُ	عَجَّةُ	النَّدِيْقُ	(35)
لِحَادَا	الِكِرْفُ	سَلْمَى	عُبَيْرَا	بَيْفَ	(40)
تَمُ شِيرُ	مِكُ	عَلُ	مُنُ	كِسَامُ	(45)
الْأَمِطُ	صُدْمُنُ	مَخَاكُ	رِشَالَةٌ	هَابِرُ	(50)

الوقت المتبقي على العداد في نهاية التمرين (عدد الثوان) :

ضع علامة في هذا المربع إذا تم توقيف التمرين حيث أن الطفل لم يجب على أي سؤال في السطر الأول :

حسننا ننتقل للقسم التالي

### - أ. قراءة مقطع شفوي 3 القسم

أظهر للطفل القصة الموجودة في كتيب التنشيط وقل له:

هذه قصة قصيرة. أريد أن تركز جيداً وقرأها بصوت عالٍ وبأقصى سرعة ممكنة. حين تنتهي، سأطرح عليك بعض الأسئلة حول ما قرأته. هل فهمت المطلوب منك؟ حين أقول لك "نبدأ"، اقرأ القصة جيداً. سابقي صامتاً أستمع اليك إلا إذا احتجت مساعدتي. مستعد؟ نبدأ.



شغل العداد حين يقرأ التلميذ الكلمة الأولى. تابع معه بقلمك وضع بوضوح علامة / على أي خطأ. حين يصلح الطفل خطأه بنفسه اعتبر الإجابة صحيحة. ابقى صامتاً، ما عدا إذا تردد التلميذ اعط الأجابة كالتالي: حين يتردد الطفل لمدة ثلاث ثواني، اعط انت الكلمة. أشر للكلمة التي بعدها وقل: "تتابع من فضلك". علم على الكلمة التي تم تصحيحها للطفل على أنها خطأ.

بعد مرور 60 ثانية، قل 'نتوقف'. ضع علامة ( [ ) على آخر كلمة قرأها الطفل. قاعدة التوقف المبكر: إذا لم يقرأ الطفل أي كلمة صحيحة في السطر الأول، قل "شكراً" وأوقف التمرين. ضع علامة في المربع الموجود في أسفل الصفحة وانتقل للتمرين التالي.

### القسم 3 - ب.

بعد مرور 60 ثانية، إذا قرأ الطفل المقطع في أقل من 60 ثانية، اسحب من أمامه مقطع القصة واطرح عليه السؤال الأول أدناه.

اترك للطفل 15 ثانية على الاكثر كي يجيب على السؤال. ضع علامة على جواب الطفل في الخانة المناسبة وانتقل إلى السؤال الثاني.

اقرأ الأسئلة في كل سطر حتى تصل للقوس ( [ ) ووضح إلى أين وصل الطفل في قراءة المقطع.

سأطرح عليك الآن بعض الأسئلة حول القصة التي قرأت. حاول أن تجيب على الأسئلة قدر ما استطعت:

لا إجابة	غير صحيح	صحيح		
			حول من تدور القصة؟	سارَةُ بِنْتُ مُؤَدَّبَةٍ تَعِيشُ سَعِيدَةً مَعَ أَبِيهَا، وَهِيَ تُحِبُّ النِّظَافَةَ وَالتَّرْتِيبَ. وَتُحَافِظُ عَلَى دُرُوسِهَا
			كيف تحاول سارة مساعدة والدتها؟	تسَاعِدُ والدَتَهَا فِي المَطْبَخِ
			ماذا يعمل البائع المتجول على مقربة من المدرسة؟	وَفِي يَوْمٍ شَاهَدَتْ سارَةَ بائِعاً مُتَجَوِّلاً يَبِيعُ المَأْكُولَاتِ عَلَى مَقْرَبَةٍ مِنَ المَدْرَسَةِ فَفَكَّرَتْ أَنْ تَأْكُلَ مِنْهُ
			ماذا أخبرت سارة الطبيب عندما ذهبت إليه؟	رَجَعَتْ إِلَى البَيْتِ وَحِينَ دَخَلَتْ إِلَى المَطْبَخِ صَاحَتْ وَوَضَعَتْ يَدَهَا عَلَى بَطْنِهَا، أَسْرَعَتْ بِهَا أُمُّهَا إِلَى المَرْكَزِ الصِّحِيِّ. وَأخْبَرَتْ سارَةَ الطَّبِيبَ بِمَا أَكَلَتْ مِنَ البَائِعِ المَتَجَوِّلِ.
			لماذا نمتنع عن تناول الطعام من الباعة المتجولين؟	أَجْرَى الطَّبِيبُ فُحُوصَاتِهِ وَوَصَفَ لَهَا الدَّوَاءَ وَنَصَحَهَا بِعَدَمِ تَنَاوُلِ الأَطْعِمَةِ المَكشُوفَةِ؛ لِأَنَّهَا مُلوَّثَةٌ وَغَيْرُ صِحِيَّةٍ، قَالَتْ سارَةُ: لَنْ أَكْرَرَ هَذَا الفِعْلَ أَبَداً.

الوقت المتبقي على العداد في نهاية التمرين (عدد الثواني) :

ضع علامة في هذا المربع إذا تم توقيف التمرين حيث أن الطفل لم يجب على أي سؤال في السطر الأول:

حسنًا ننتقل إلى القسم التالي

## القسم 4 - فهم المسموع

هذا التمرين لا يعتمد التوقيت. ليس هناك ورقة للتلميذ. القائم بالاختبار يقرأ بصوت عال المقطع التالي مرة واحدة فقط، بتمهل (كلمة كل ثانية تقريباً). قل:

سأقرأ عليك قصة قصيرة بصوت عال، مرة واحدة. و بعد ذلك سأطرح عليك بعض الأسئلة. اسمع جيداً من فضلك وحاول أن تجيب قدر ما استطعت على الأسئلة. هل فهمت المطلوب منك؟

كُلَّ صَبَاحٍ، تَحْلُبُ أُمِّي بَقَرَتَهَا، وَ تُحَضِّرُ لَنَا الْفُطُورَ. ذَاتَ يَوْمٍ، لَمْ تَجِدِ الْبَقْرَةَ فِي الْإِسْطَبْلِ. اسْتَيْقَظْتُ فَلَمْ أَرَ فُطُوراً عَلَى الطَّاوِلَةِ. كَانَتْ أُمِّي قَدْ خَرَجَتْ لِلْبَحْثِ عَنْهَا عِنْدَ الْجِيرَانِ، وَ فِي الْحَقْلِ، وَ قُرْبَ النَّهْرِ. غَيْرَ أَنَّهَا لَمْ تَعْثُرْ عَلَيْهَا. فَبَكَتْ حُزْناً لِأَنَّهَا كَانَتْ تُحِبُّهَا كَثِيراً. فَلَمَّا عَادَتْ سَمِعَتْ ضَجِيجًا فِي الْمَطْبَخِ. إِنَّهَا الْبَقْرَةُ! تَأْكُلُ جَزْراً مِنْ سَلَةِ الْخُضَرِ

○ لا إجابة	○ غير صحيح	○ صحيح	تحلب الام بقرتها وَ تُحَضِّرُ لَنَا الْفُطُورَ	-ماذا تفعل الأم كل صباح؟
○ لا إجابة	○ غير صحيح	○ صحيح	لم تجد البقرة.	ماذا حدث للام في الاسطبل؟
○ لا إجابة	○ غير صحيح	○ صحيح	لان الام لم تحلب البقرة.	لماذا لم يجد الطفل فطورا على الطاولة
○ لا إجابة	○ غير صحيح	○ صحيح	بحثت عنها عند الجيران و في الحقل و قرب النهر	اين بحثت الام عن البقرة؟
○ لا إجابة	○ غير صحيح	○ صحيح	لأنها تحب بقرتها	لم بكت الأم؟
○ لا إجابة	○ غير صحيح	○ صحيح	البقرة	ما الذي احدث الضجيج في المطبخ؟

30 ثانية	A	المهمة 1 : التعرف على الأعداد																				
<p>✋</p> <ul style="list-style-type: none"> <li>• عند انتهاء الوقت المحدد (30 ثانية) ضمن ساعة عداد الوقت.</li> <li>• إذا قمت بتسجيل أن الاجابات الموجودة في السطر الاول جميعها خاطئة، توقف عن أكمال هذا التمرين وضع علامة حول الرمز الصندوق الموجود أسفل الصفحة ثم أذهب الى التمرين التالي.</li> </ul> <p>⌚</p> <ul style="list-style-type: none"> <li>• إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوان بدون اجابة.</li> </ul>	<p>🔊</p> <p>فيما يلي بعض الأعداد، أريد منك أن تقرأ العدد مع الاشارة إليه . سأستعمل العداد وسأخبرك متى تبدأ ومتى تتوقف . عندما أقول إبدأ ، قل الأعداد حسب استطاعتك وابدأ من هذا العدد وتابع من اليمين الى اليسار سطرا بسطر.</p> <p>ابدأ من هنا . هل أنت مستعد ؟ ما هو هذا العدد ؟</p> <p>✍ (/) غير صحيح أو بدون جواب</p> <p>([]) عند آخر عدد منطوق به</p> <table border="1" data-bbox="810 779 1177 1059"> <tr> <td>٣٠</td> <td>١٢</td> <td>٠</td> <td>٩</td> <td>٢</td> </tr> <tr> <td>٤٨</td> <td>٢٣</td> <td>٣٩</td> <td>٤٥</td> <td>٢٢</td> </tr> <tr> <td>٦٥</td> <td>٨٧</td> <td>٧٤</td> <td>٣٣</td> <td>٩١</td> </tr> <tr> <td>٩٨٩</td> <td>٧٣١</td> <td>٥٨٠</td> <td>٢٤٥</td> <td>١٠٨</td> </tr> </table>	٣٠	١٢	٠	٩	٢	٤٨	٢٣	٣٩	٤٥	٢٢	٦٥	٨٧	٧٤	٣٣	٩١	٩٨٩	٧٣١	٥٨٠	٢٤٥	١٠٨	<p>✍ (/) غير صحيح أو بدون جواب</p> <p>([]) عند آخر عدد منطوق به</p>
٣٠	١٢	٠	٩	٢																		
٤٨	٢٣	٣٩	٤٥	٢٢																		
٦٥	٨٧	٧٤	٣٣	٩١																		
٩٨٩	٧٣١	٥٨٠	٢٤٥	١٠٨																		
<input type="text"/>		<p>✍ الوقت المتبقى على العداد</p>																				
<input type="text"/>		<p>✍ ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.</p>																				

المهمة 2 : مقارنة الأعداد - تمرين	
x 🕒	B1 📖
x 🖐	<p>👁️ أنظر إلى هذين العددين. أيهما الأكبر ؟ ٨ ٤</p> <p>👁️ ✓ صحيح ، ٨ هو الأكبر. لنتابع</p> <p>👁️ x العدد ٨ هو الأكبر . [ أشر إلى ٨ ] هذا هو العدد ٨ . [ أشر إلى ٨ ] هذا العدد هو ٤ . الرقم ٨ أكبر من ٤ . لنتابع .</p>
x 🕒	<p>👁️ أنظر إلى هذين العددين. أيهما الأكبر ؟ ١٢ ١٠</p> <p>👁️ ✓ صحيح ، ١٢ هو الأكبر. لنتابع</p> <p>👁️ x العدد ١٢ هو الأكبر . [ أشر إلى ١٠ ] هذا العدد هو ١٠ . [ أشر إلى ١٢ ] هذا العدد هو ١٢ . ١٢ أكبر من ١٠ لنحاول مثلاً آخر.</p>

المهمة 2 : مقارنة الأعداد																															
60 ثانية 🕒	B2 & B3 📖																														
🖐	<p>👁️ أنظر الى هذه الاعداد وأخبرني أي الاعداد أكبر (أقرا كل عدد للتميذ)</p> <p>🖐 (/) غير صحيح أو بدون جواب</p> <p>🖐 ([ ]) عند آخر عدد منطوق به</p>																														
<p>• عند انتهاء الوقت المحدد (60 ثانية) ضمن ساعة عداد الوقت.</p> <p>• اذا قمت بتسجيل أن الاجابات الموجودة في العمود الاول جميعها خاطئة ولم يتم تصحيحها من قبل التلميذ، توقف عن أكمل هذا التمرين وضع علامة حول الرمز الصندوق الموجود أسفل الصفحة ثم أذهب الى التمرين التالي.</p> <p>• إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوانٍ بدون أجابة.</p>	<table border="1"> <tbody> <tr> <td>٩٤</td> <td>٩٤</td> <td>٧٨</td> <td>٧</td> <td>٧</td> <td>٥</td> </tr> <tr> <td>١٥٣</td> <td>١٤٦</td> <td>١٥٣</td> <td>٢٥</td> <td>١٢</td> <td>٢٥</td> </tr> <tr> <td>٥٣٧</td> <td>٢٨٧</td> <td>٥٣٧</td> <td>٣٤</td> <td>٣٤</td> <td>٢٩</td> </tr> <tr> <td>٦٥٠</td> <td>٦٥٠</td> <td>٦٠٥</td> <td>٥٨</td> <td>٥٨</td> <td>٤٨</td> </tr> <tr> <td>٩٦٧</td> <td>٩٦٥</td> <td>٩٦٧</td> <td>٦٧</td> <td>٦٥</td> <td>٦٧</td> </tr> </tbody> </table>	٩٤	٩٤	٧٨	٧	٧	٥	١٥٣	١٤٦	١٥٣	٢٥	١٢	٢٥	٥٣٧	٢٨٧	٥٣٧	٣٤	٣٤	٢٩	٦٥٠	٦٥٠	٦٠٥	٥٨	٥٨	٤٨	٩٦٧	٩٦٥	٩٦٧	٦٧	٦٥	٦٧
٩٤	٩٤	٧٨	٧	٧	٥																										
١٥٣	١٤٦	١٥٣	٢٥	١٢	٢٥																										
٥٣٧	٢٨٧	٥٣٧	٣٤	٣٤	٢٩																										
٦٥٠	٦٥٠	٦٠٥	٥٨	٥٨	٤٨																										
٩٦٧	٩٦٥	٩٦٧	٦٧	٦٥	٦٧																										
🕒	<p>🖐 الوقت المتبقى على العداد</p>																														
🕒	<p>🖐 ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.</p>																														

<p>⊗ ×</p>	<p>C1  المهمة 3: الأعداد المناسبة (سلسلة الأعداد) تمرين</p>																
<p>⊗ ✎</p> <p>⊗ ⊖</p>	<p>⊗ ✎ لاحظ الأعداد التالية ١، ٢، ٤، ما هو العدد المناسب (أشر إلى الفراغ)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٤</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">(٣)</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٢</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">١</td></tr> </table> </div> <p>⊗ ✎ صحيح , ٣ . لننتقل الى مثال آخر.</p> <p>⊗ ✎ هنا العدد هو ٣ . أقرأ الأعداد معي (مع الإشارة إلى كل عدد على حدة)؛ ١، ٢، ٣، ٤، إذن العدد المناسب هو ٣ . لننتقل الى مثال آخر</p> <hr/> <p>⊗ ✎ لاحظ الأعداد التالية ٥، ١٠، ١٥، ما هو العدد المناسب (أشر الى الفراغ)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">(٢٠)</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">١٥</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">١٠</td></tr> </table> <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٥</td></tr> </table> </div> <p>⊗ ✎ صحيح ٢٠ لننتقل الى مثال آخر</p> <p>⊗ ✎ العدد المناسب هو ٢٠، و الآن قم بترديد الأعداد معي، (مع الإشارة إلى كل عدد على حدة)؛ ٥، ١٠، ١٥، ٢٠، إذن العدد المناسب هو ٢٠. لننتقل الى مثال آخر .</p>		٤		(٣)		٢		١		(٢٠)		١٥		١٠		٥
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<p>⊗ 60 ثانية</p>	<p>C3 &amp; C2  المهمة 3: الأعداد المناسبة (سلسلة الأعداد)</p>																								
<p>⊗ ✎</p> <ul style="list-style-type: none"> <li>● عند انتهاء الوقت المحدد (60 ثانية) ضمن ساعة عداد الوقت.</li> <li>● إذا قمت بتسجيل أن الاجابات الموجودة في العمود الاول جميعها خاطئة ولم يتم تصحيحها من قبل التلميذ، توقف عن أكمل هذا التمرين، ضع علامة حول الرمز الصندوق الموجود أسفل الصفحة ثم أذهب الى التمرين التالي.</li> </ul> <p>⊗ ⊖</p> <ul style="list-style-type: none"> <li>● إذا توقف التلميذ(ة) عند الرقم</li> </ul>	<p>⊗ ✎ فيما يلي لدينا أسئلة أخرى من هذا النوع: ضع العدد المناسب داخل المستطيل الفارغ. (أقرأ الأعداد للتلميذ الواحد تلو الآخر).</p> <p>✎ (/) غير صحيح أو بدون جواب</p> <p>⊗ ✎ ([) عند آخر عدد منطوق به</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>6</p> <table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٣٥١</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٣٥٠</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٣٤٩</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٣٤٨</td></tr> </table> </div> <div style="width: 45%;"> <p>1</p> <table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٨</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٧</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٦</td></tr> <tr><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="text-align: center;">٥</td></tr> </table> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>7</p> <table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="width: 20px; height: 20px;"></td></tr> </table> </div> <div style="width: 45%;"> <p>2</p> <table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="width: 20px; height: 20px;"></td></tr> </table> </div> </div>		٣٥١		٣٥٠		٣٤٩		٣٤٨		٨		٧		٦		٥								
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لمدة 5 ثوان بدون أجابة.	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٢٢</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٢٤</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; background-color: #cccccc;">٢٦</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٢٨</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">١٧</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; background-color: #cccccc;">١٦</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">١٥</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">١٤</div> </div>	8	3
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	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">١٨</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; background-color: #cccccc;">١٣</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٨</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٣</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; background-color: #cccccc;">٨</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٦</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٤</div> <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center;">٢</div> </div>		
	<input style="width: 40px; height: 20px;" type="text"/>	✍ الوقت المتبقى على العداد	
<input style="width: 40px; height: 20px;" type="text"/>	✍ ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.		

30 ثانية ⌚	D2 & D1 📖	المهمة 4A: عملية الجمع - تمرين																				
<p>✋</p> <ul style="list-style-type: none"> <li>● عند انتهاء الوقت المحدد (30 ثانية) ضمن ساعة عداد الوقت.</li> <li>● إذا قمت بتسجيل أن الاجابات الخمسة الالى ولم يتم تصحيحها من قبل التلميذ, توقف عن أكمل هذا التمرين, ضع علامة حول الرمز الصندوق الموجود أسفل الصفحة ثم أذهب الى التمرين التالي.</li> </ul> <p>Ⓒ</p> <ul style="list-style-type: none"> <li>● إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوان بدون اجابة.</li> </ul>	<p>👤 إليك بعض تمارين الجمع الاخرى (مرر يدك على التمرين من الاعلى الى الاسفل), سأقوم بأستخدام ساعة التوقيت . أقرأ كل عدد لكل تمرين , إذا لم تتمكن من معرفة الاجابة, أنتقل الى العدد الاخر.</p> <p>هل أنت مستعد؟..... أبدأ من هنا( أشر الى التمرين الاول)</p> <p>✍ (/) غير صحيح أو بدون جواب</p> <p>([]) عند آخر عدد منطوق به</p> <table border="1" data-bbox="582 723 1366 1456"> <tbody> <tr> <td><math>(14) = 3 + 11</math></td> <td><math>(4) = 3 + 1</math></td> </tr> <tr> <td><math>(17) = 4 + 13</math></td> <td><math>(5) = 2 + 3</math></td> </tr> <tr> <td><math>(19) = 3 + 16</math></td> <td><math>(8) = 2 + 6</math></td> </tr> <tr> <td><math>(14) = 6 + 8</math></td> <td><math>(9) = 5 + 4</math></td> </tr> <tr> <td><math>(15) = 8 + 7</math></td> <td><math>(6) = 3 + 3</math></td> </tr> <tr> <td><math>(16) = 7 + 9</math></td> <td><math>(9) = 1 + 8</math></td> </tr> <tr> <td><math>(16) = 8 + 8</math></td> <td><math>(10) = 3 + 7</math></td> </tr> <tr> <td><math>(13) = 11 + 2</math></td> <td><math>(9) = 7 + 2</math></td> </tr> <tr> <td><math>(12) = 2 + 10</math></td> <td><math>(10) = 5 + 5</math></td> </tr> <tr> <td><math>(18) = 10 + 8</math></td> <td><math>(10) = 8 + 2</math></td> </tr> </tbody> </table>	$(14) = 3 + 11$	$(4) = 3 + 1$	$(17) = 4 + 13$	$(5) = 2 + 3$	$(19) = 3 + 16$	$(8) = 2 + 6$	$(14) = 6 + 8$	$(9) = 5 + 4$	$(15) = 8 + 7$	$(6) = 3 + 3$	$(16) = 7 + 9$	$(9) = 1 + 8$	$(16) = 8 + 8$	$(10) = 3 + 7$	$(13) = 11 + 2$	$(9) = 7 + 2$	$(12) = 2 + 10$	$(10) = 5 + 5$	$(18) = 10 + 8$	$(10) = 8 + 2$	<p>✍ الوقت المتبقى على العداد</p>
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<p><input type="text"/></p>	<p><input type="text"/></p>	<p>✍ ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.</p>																				

60 ثانية	D3	المهمة 4B: عملية الجمع - تمرين					
<p>✋</p> <ul style="list-style-type: none"> <li>• عند انتهاء الوقت المحدد (60 ثانية) ضمن ساعة عداد الوقت.</li> <li>• إذا لم يتمكن التلميذ من الاجابة على جميع أسالة المستوى الاول بصورة صحيحة.</li> <li>• إذا أجاب التلميذ أربعة أجابات خاطئة متتالية.</li> </ul> <p>⊞</p> <ul style="list-style-type: none"> <li>• إذا قام التلميذ بأستخدام طرائق غير مجدية (كأستخدام طرق بدائية مثلا), أطلب من التلميذ أن يستخدم أي طريقة أخرى لحل المسألة</li> <li>• إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوان بدون اجابة.</li> </ul>	<p>✎ ✎</p> <p>ورقة وقلم</p> <p>✎</p> <p>أليك بعض عمليات الجمع الاخرى . إذا كنت راغبا بأستعمال الورقة والقلم فذلك مناسب لكنك لست مرغما على فعل ذلك.</p> <p>✎ (/) غير صحيح أو بدون جواب</p> <p>( [ ) عند آخر عدد منطوق به</p> <table border="1" data-bbox="868 689 1259 1043"> <tbody> <tr> <td><math>( ١٩ ) = ٣ + ١٦</math></td> </tr> <tr> <td><math>( ٢٥ ) = ٧ + ١٨</math></td> </tr> <tr> <td><math>( ٣٦ ) = ١٢ + ٢٤</math></td> </tr> <tr> <td><math>( ٥٩ ) = ٣٧ + ٢٢</math></td> </tr> <tr> <td><math>( ٦٤ ) = ٢٦ + ٣٨</math></td> </tr> </tbody> </table>	$( ١٩ ) = ٣ + ١٦$	$( ٢٥ ) = ٧ + ١٨$	$( ٣٦ ) = ١٢ + ٢٤$	$( ٥٩ ) = ٣٧ + ٢٢$	$( ٦٤ ) = ٢٦ + ٣٨$	
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<input type="checkbox"/>		✎ الوقت المتبقى على العداد					
<input type="checkbox"/>		✎ ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.					

30 ثانية ⌚	E2 & E1 📖	المهمة 5A: عملية الطرح - تمرين																				
<p>✎</p> <p>● عند انتهاء الوقت المحدد (30 ثانية) ضمن ساعة عداد الوقت.</p> <p>● إذا قمت بتسجيل أن الاجابات الخمسة الالى ولم يتم تصحيحها من قبل التلميذ، توقف عن أكمل هذا التمرين، ضع علامة حول الرمز الصندوق الموجود أسفل الصفحة ثم أذهب الى التمرين التالي.</p> <p>Ⓒ</p> <p>● إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوان بدون اجابة.</p>	<p>✎ إليك بعض تمارين الطرح الاخرى (مرر يدك على التمرين من الاعلى الى الاسفل) سأقوم بأستخدام ساعة التوقيت . أقرأ كل عدد لكل تمرين , إذا لم تتمكن من معرفة الاجابة, أنتقل الى العدد الاخر.</p> <p>هل أنت مستعد؟..... أبدأ من هنا( أشر الى التمرين الاول)</p> <p>✎ (/) غير صحيح أو بدون جواب</p> <p>([]) عند آخر عدد منطوق به</p> <table border="1" data-bbox="582 721 1366 1429"> <tbody> <tr> <td><math>(11) = 3 - 14</math></td> <td><math>(3) = 1 - 4</math></td> </tr> <tr> <td><math>(13) = 4 - 17</math></td> <td><math>(3) = 2 - 5</math></td> </tr> <tr> <td><math>(16) = 3 - 19</math></td> <td><math>(6) = 2 - 8</math></td> </tr> <tr> <td><math>(8) = 6 - 14</math></td> <td><math>(4) = 5 - 9</math></td> </tr> <tr> <td><math>(8) = 7 - 15</math></td> <td><math>(3) = 3 - 6</math></td> </tr> <tr> <td><math>(7) = 9 - 16</math></td> <td><math>(8) = 1 - 9</math></td> </tr> <tr> <td><math>(8) = 8 - 16</math></td> <td><math>(7) = 3 - 10</math></td> </tr> <tr> <td><math>(2) = 11 - 13</math></td> <td><math>(2) = 7 - 9</math></td> </tr> <tr> <td><math>(10) = 2 - 12</math></td> <td><math>(5) = 5 - 10</math></td> </tr> <tr> <td><math>(8) = 10 - 18</math></td> <td><math>(2) = 8 - 10</math></td> </tr> </tbody> </table>	$(11) = 3 - 14$	$(3) = 1 - 4$	$(13) = 4 - 17$	$(3) = 2 - 5$	$(16) = 3 - 19$	$(6) = 2 - 8$	$(8) = 6 - 14$	$(4) = 5 - 9$	$(8) = 7 - 15$	$(3) = 3 - 6$	$(7) = 9 - 16$	$(8) = 1 - 9$	$(8) = 8 - 16$	$(7) = 3 - 10$	$(2) = 11 - 13$	$(2) = 7 - 9$	$(10) = 2 - 12$	$(5) = 5 - 10$	$(8) = 10 - 18$	$(2) = 8 - 10$	
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<input type="text"/>		✎ ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.																				

60 ثانية	E3 	المهمة 5B: عملية الجمع - تمرين					
<p></p> <ul style="list-style-type: none"> <li>• عند انتهاء الوقت المحدد (60 ثانية) ضمن ساعة عداد الوقت.</li> <li>• إذا لم يتمكن التلميذ من الاجابة على جميع أسالة المستوى الاول بصورة صحيحة.</li> <li>• إذا أجاب التلميذ أربعة أجابات خاطئة متتالية.</li> </ul> <p></p> <ul style="list-style-type: none"> <li>• إذا قام التلميذ بأستخدام طرائق غير مجدية (كأستخدام طرق بدائية مثلا), أطلب من التلميذ أن يستخدم أي طريقة أخرى لحل المسألة</li> <li>• إذا توقف التلميذ(ة) عند الرقم لمدة 5 ثوان بدون اجابة.</li> </ul>	<p></p> <p> أليك بعض عمليات الطرح الاخرى . إذا كنت راغبا بأستعمال الورقة والقلم فذلك مناسب لكناك لست مرغما على فعل ذلك.</p> <p> (/) غير صحيح أو بدون جواب</p> <p>( [ ) عند آخر عدد منطوق به</p> <table border="1" data-bbox="869 694 1260 1041"> <tr> <td><math>( ١٦ ) = ٣ - ١٩</math></td> </tr> <tr> <td><math>( ١٨ ) = ٧ - ٢٥</math></td> </tr> <tr> <td><math>( ٢٤ ) = ١٢ - ٣٦</math></td> </tr> <tr> <td><math>( ٢٢ ) = ٣٧ - ٥٩</math></td> </tr> <tr> <td><math>( ٣٨ ) = ٢٦ - ٦٤</math></td> </tr> </table>	$( ١٦ ) = ٣ - ١٩$	$( ١٨ ) = ٧ - ٢٥$	$( ٢٤ ) = ١٢ - ٣٦$	$( ٢٢ ) = ٣٧ - ٥٩$	$( ٣٨ ) = ٢٦ - ٦٤$	
$( ١٦ ) = ٣ - ١٩$							
$( ١٨ ) = ٧ - ٢٥$							
$( ٢٤ ) = ١٢ - ٣٦$							
$( ٢٢ ) = ٣٧ - ٥٩$							
$( ٣٨ ) = ٢٦ - ٦٤$							
<input type="text"/>		<p> الوقت المتبقى على العداد</p>					
<input type="text"/>		<p> ضع إشارة داخل المستطيل إذا توقف الاختبار نتيجة لعدم وجود اجابة صحيحة من التلميذ في السطر الاول.</p>					

المهمة 6 : المسائل الكلامية		
✖ 🕒	✖ 📖	
✖ 🖐	✖ ✎ ✎ ✎ عدادات، ورقة، وقلم.	
<p>● في حال توقف الطفل عند سؤال لمدة ٥ ثواني. (ولم يحاول استعمال العدادات، أو الأصابع، أو الورقة والقلم) أو</p> <p>● في حال لم يجب الطفل عن السؤال بعد مرور ٣٠ ثانية على توجيه السؤال له.</p> <p>ملاحظة: تشير عبارات "توقف وتحقق من الطفل" في كل مسألة إلى أنك يجب أن تتأكد من فهم الطفل لما قلته قبل أن تكمل. قد تحتاج لسؤال الطفل، "هل فهمت؟"</p>	<p>لدي بعض المسائل الحسابية وسوف أطلب منك حلها. هذه بعض الأشياء التي يمكن أن تساعدك. تستطيع استعمالها إذا احتجت لها، ولكنك لست مجبراً على استعمالها. استمع جيداً لكل من هذه المسائل. سأكرر المسألة في حال احتجت إلى ذلك. جيد، لنبدأ</p>	
	المسألة ١	✎
	الإجابة الصحيحة: ٤	<p>ستة أطفال في حافلة اثنان منهم ذكور [توقف وتحقق من الطفل]</p> <p>وباقى الركاب إناث [توقف وتحقق من الطفل]</p> <p>كم هو عدد الركاب الإناث في الباص؟</p>
	المسألة ٢	✎
	الإجابة الصحيحة: ٧	<p>خمسة أطفال ركبوا في حافلة. [توقف وتحقق من الطفل]</p> <p>والآن أصبح العدد 12 طفل في الحافلة. [توقف وتحقق من الطفل]</p> <p>كم كان عدد الاطفال في الباص في البداية؟</p>
	المسألة ٣	✎
الإجابة الصحيحة: ٣	<p>أربعة أطفال يتشاركون وبالتساوي 12 قطعة الحلوى. [توقف وتحقق من الطفل]</p> <p>كم كان عدد قطع الحلوى لكل طفل؟</p>	

# Annex B: SSME Instruments

## Principal Questionnaire



الإداة الخاصة بمدير المدرسة

Label

HT1 اسم المدرسة:  
HT2 أسم الشخص المسؤول عن التقييم  
HT3 الرمز الخاص بالشخص المسؤول عن التقييم  
HT4 أسم المشرف  
HT5 الرمز الخاص بالمشرف  
HT6 توقيع المشرف  
HT7 توقيع المشرف

HT8	وقت البدء :	_____													
HT9	تاريخ المقابلة	<table border="1"> <tr> <td>D</td> <td>D</td> <td>M</td> <td>M</td> <td>Y</td> <td>Y</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	D	D	M	M	Y	Y							
D	D	M	M	Y	Y										
HT10	نتيجة المقابلة	<p>رفض / أنهى المقابلة . 1</p> <p>تمت بصورة جزئية . 2</p> <p>تمت . 3</p>													
HT11	ماهو منصبك الوظيفي في المدرسة؟	<p>المدير . 1</p> <p>معاون المدير . 2</p>													
HT12	هل هي مديرة؟	<p>لا . 0</p> <p>نعم . 1</p>													
HT13	كم سنة لك وانت بهذا المنصب؟	عدد السنين	<table border="1"> <tr> <td></td> <td></td> </tr> </table>												
HT14	ماهو أعلى مؤهل دراسي حصلت عليه؟	<p>اعدادية . 1</p> <p>دبلوم . 2</p> <p>بكلوريوس . 3</p> <p>ماجستير . 4</p> <p>أخرى/ حدد . 5</p> <p>6</p>													
HT14.01		لااعلم/ رفض	888												
HT15	هل تلقيت تدريباً متخصصاً او دورات في مجال الادارة المدرسية؟	<p>لا . 0</p> <p>→ لا - أذهب الى</p> <p>إذا كان الجواب نعم اعط مثال . 1</p>													
		لاأعلم / رفض	888												

HT16	هل تمكنت من تطبيق دروس إدارة المدارس الي تلقيتها؟	0 1 2 3	. لا . نعم ، أحيانا . نعم ، عادة . نعم ، دائما
HT16.01		888	لا أعلم / رفض
HT17	هل تستفيد المدرسة من برامج ذات تمويل خاص أو تتلقى مساعدات تقنية خارجية قد لا تكون متوفرة لمدارس أخرى؟	0 1	. لا no . نعم yes
		888	لا أعلم / رفض
HT18	خلال الشهر المنصرم كم مرة غادرت المدرسة أثناء دوام المدرسة؟		عدد الايام <input type="text"/> <input type="text"/>
HT19	ماهي الصفوف التي يتم تدريسها في هذه المدرسة هذا العام؟ <b>ضع دائرة حول كل الاجابات المطابقة</b>	1 1 1 1 1 1 1 1 1 1 1	. الروضة . الاول . الثاني . الثالث . الرابع . الخامس . السادس . السابع . الثامن . التاسع . أخرى/ حدد
HT19.01			
HT19.02			
HT19.03			
HT19.04			
HT19.05			
HT19.06			
HT19.07			
HT19.08			
HT19.09			
HT19.10			
HT19.11			
HT20	في أي تاريخ بدأت الدراسة في هذا لعالم الدراسي؟		D D M M Y Y <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
HT21	خلال العام الدراسي الحالي (ما عدا العطل الرسمية) هل أغلقت المدرسة أبوابها أو توقفت الدوام فيها؟	0 1 888	. لا → لا - أذهب الي . نعم . لا أعلم / رفض
HT22	إذا كان الجواب نعم ، كم عدد الايام التي أغلقت فيها المدرسة أبوابها أو توقفت الدراسة فيها؟	888	عدد الايام لا أعلم / رفض <input type="text"/> <input type="text"/>
HT23	هل تشترك مدرستكم في المبنى مع مدرسة اخرى؟	0 1 888	. لا → لا - أذهب الي . نعم . لا أعلم / رفض

HT24	إذا كان الجواب (نعم) كم مدرسة تشغل هذه البناية بما في ذلك مدرستكم؟	. مدرستين . ثلاث مدارس . أكثر من ثلاث . لأعلم / رفض	1 2 3
HT25	كم وجبة دوام في المدرسة؟	. وجبة واحدة → . وجبتين . أكثر من وجبتين . لأعلم / رفض	0 لا - أذهب الى 1 2 888
HT26	ما هو وقت بدء الدوام للوجبة الحالية؟ استخدم طريقة 24 ساعة	: . لأعلم / رفض	888
HT27	ما هو وقت انتهاء دوام الوجبة الحالية؟ استخدم طريقة 24 ساعة	: . لأعلم / رفض → لا - أذهب الى	888
HT28	ما هو وقت ابتداء اليوم الدراسي لمدرستك؟ استخدم طريقة 24 ساعة	: . لأعلم / رفض	888
HT29	ما هو وقت انتهاء اليوم الدراسي لمدرستك؟ استخدم طريقة 24 ساعة	: . لأعلم / رفض	888
HT30	يعني أن يومك الدراسي ودوام الوجبة يستمر لـ من الساعات و ص من الدقائق ، هل هذا صحيح؟		
HT30.01	احسب فترة وجبة الدوام المدرسي وجبة يوم ومن ثم اكد ذلك مع المدير	x(ص) = <input type="text"/>	
HT30.02		y(ص) = <input type="text"/> . لأعلم / رفض	888
HT31	كم هو مجموع الوقت المحدد للأصطفاف في كل أسبوع؟	الوقت المخصص للأصطفاف	<input type="text"/>
HT31.01			دقائق
HT32.02	كم هو مجموع الوقت المحدد للاستراحات والفرص في كل أسبوع؟	الوقت المخصص للفرصة	<input type="text"/>
HT32.02		لأعلم / رفض	888
HT33	كم هو عدد التلاميذ الذكور المسجلين في هذه المدرسة حالياً؟ وكم عدد التلميذات المسجلات في المدرسة حالياً؟	عدد التلاميذ الذكور عدد التلميذات لأعلم / رفض	<input type="text"/> <input type="text"/> 8888
HT33.01			
HT33.02			
HT34	كم عدد المعلمين الذكور المعيّنين في المدرسة حالياً؟ وعدد المعلمات حالياً؟	عدد المعلمين عدد المعلمات لأعلم / رفض	<input type="text"/> <input type="text"/> 888
HT34.01			
HT34.02			

HT35	هل تم تحديد معلم واحد لمادتي القراءة والرياضيات للمرحلة الثانية أم كل على حدة؟	تم تحديد المعلم على أساس المرحلة 0 تم تحديد المعلم على أساس المادة 1 → T37 لأعلم / رفض 888
HT36	كم عدد معلمي الصف الثاني في هذه المدرسة؟ كم عدد معلمي الصف الثالث في هذه المدرسة؟	عدد معلمي الصف الثاني عدد معلمي الصف الثالث لأعلم / رفض   888
HT37 HT37.01 HT37.02	كم عدد صفوف المرحلة الثانية في هذه المدرسة؟ كم عدد صفوف المرحلة الثالثة في هذه المدرسة؟	عدد صفوف المرحلة الثانية عدد صفوف المرحلة الثالثة لأعلم / رفض 888
HT38	كم عدد المعلمين الغياب لأخر يوم ضمن دوام المدرسة؟	عدد المعلمين الغياب لأعلم / رفض 888
HT39	كم عدد المعلمين الذين هم في اجازة حاليا أو غياب بعذر؟	عدد المعلمين الغياب بعذر لأعلم / رفض 888
HT40	كم هو عدد المعلمين الذين وصلوا متأخرين للمدرسة؟ (بعد الجرس (15 دقيقة	عدد المعلمين المتأخرين لأعلم / رفض 888
HT41 HT41.01	ماذا تفعل عادة للصف الذي يكون معلمه غائبا؟ (لا تقرا الاجابات ، فقط أشر أجابة المدير	1 . أنك الصف يكملون بدون معلم 2 . أوجه معلم آخر يحل محل المعلم الغائب 3 . أجمع كل الطلاب في صف واحد 4 . أحضار معلم اضافي 5 . أخرج الطلاب من المدرسة لباقي اليوم 6 . اخراجهم للساحة 7 . أخرى أشرح لأعلم / رفض 888
سأسألك الان بعض الاسئلة حول سجلات المدرسة		
HT42	هل تحتفظ بسجلات لحضور المعلمين؟	لا → نعم لأعلم / رفض 888
HT43	هل بإمكانني رؤية سجل حضور المعلمين لطفا؟	لا يمكن السجل متوفرا لرؤيته → 1 . تكمل سجلات الحضور يوميا 2 . تكمل سجلات الحضور اسبوعيا 3 . تكمل سجلات الحضور كل أسبوعين 4 . تكمل سجلات الحضور شهريا 5 . أخرى 0 لا - أنهب الى
HT44	دون تاريخ أحدث ادخال لسجل حضور المعلمين	Day Month Year

HT45	هل تحتفظ بسجل تسجيل التلاميذ؟	<p>لا .</p> <p>→</p> <p>نعم .</p> <p>لا أعلم / رفض .</p>	<p>0</p> <p>لا - أذهب الى</p> <p>1</p> <p>888</p>						
HT46	رجاء، هل بإمكانني لطفا رؤية سجلات تسجيل التلاميذ لديك؟	<p>لم تكن السجلات متوفرة لكي اراها .</p> <p>→</p> <p>تم تحديث سجلات تسجيل التلاميذ شهريا .</p> <p>تم تحديث سجلات تسجيل التلاميذ على اساس فصلي .</p> <p>تم تحديث سجلات تسجيل التلاميذ مرة كل فصل دراسي .</p> <p>تم تحديث سجلات تسجيل التلاميذ مرة بالسنة .</p> <p>أخرى .</p>	<p>0</p> <p>لا - أذهب الى</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p>						
HT47 HT47.01 HT47.02 HT47.03 HT47.04 HT47.05 HT47.06	تتضمن سجل التلاميذ المعلومات التالية الخاصة بالتلاميذ {-ضع دائرة حول الجواب الذي ينطبق}	<p>الانتقال الى المدرسة .</p> <p>الانتقال من المدرسة .</p> <p>فصل .</p> <p>الرسوب .</p> <p>أحتياجات خاصة .</p> <p>أخرى/ حدد .</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>						
HT45	دون تاريخ آخر تحديث أو ادخال لمعلومات في سجل التلاميذ	<p style="text-align: center;"> <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> <tr> <td style="text-align: center; font-size: 8px;">Day</td> <td style="text-align: center; font-size: 8px;">Month</td> <td style="text-align: center; font-size: 8px;">Year</td> </tr> </table> </p>				Day	Month	Year	
Day	Month	Year							
HT49	هل يتم أخذ حضور التلاميذ لكل الصفوف في المدرسة؟ إذا كان الجواب نعم كم مرة عادة يحدث ذلك؟	<p>لا لم يحدث ذلك أبدا .</p> <p>نعم مرة واحدة بالسنة .</p> <p>نعم، مرتين في العام .</p> <p>نعم مرة واحدة كل شهر أو شهرين .</p> <p>نعم مرة كل شهر .</p> <p>نعم مرة كل أسبوعين .</p> <p>نعم مرة كل أسبوع .</p> <p>نعم يوميا .</p> <p>لا أعلم / رفض .</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>888</p>						
HT50	هل قمت أنت بنفسك أو أحد معاونيك بمتابعة خطط الدروس للمعلمين؟ إذا كان الجواب نعم كم مرة يحدث ذلك؟	<p>لا لم يحدث ذلك أبدا .</p> <p>نعم مرة واحدة بالسنة .</p> <p>مرتين في العام .</p> <p>نعم مرة واحدة كل شهر أو شهرين .</p> <p>نعم مرة كل شهر .</p> <p>نعم مرة كل أسبوعين .</p> <p>نعم مرة كل أسبوع .</p> <p>نعم يوميا .</p> <p>لا أعلم / رفض .</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>888</p>						
HT51	لطفا وضع لماذا تقوم بملاحظة خطط الدروس للمعلمين؟	<p>لا أعلم / رفض .</p>	888						

HT52	هل تقوم بملاحظة خطط الدروس لبعض المعلمين أكثر من المعلمين الآخرين؟ إذا كان الجواب نعم رجاء أشرح السبب.	0 1	لا، أنا أقوم بملاحظة خطط الدروس لكل المعلمين بصورة متساوية . نعم أنا أقوم بملاحظة خطط الدروس لبعض المعلمين أكثر من غيرهم. إذا كان الجواب نعم ، وضح
HT52.01		888	لا أعلم / رفض
HT53	كم مرة في الغالب تقوم أنت أو معاونتك بزيارة وملاحظة الصفوف؟	0 1 2 3 4 5 6 7	لا لم يحدث ذلك أبدا نعم مرة واحدة بالسنة نعم ، مرتين في السنة نعم مرة واحدة كل شهر أو شهرين نعم مرة كل شهر نعم مرة كل أسبوعين نعم مرة كل أسبوع نعم يوميا
HT54	ما هي الاجراءات التي تتخذها عندما تكون غير راضي عن اداء احد المعلمين لديك؟ لا تقرأ خيارات الردود فقط ارسم دائرة حول الاجابة المعطاة	0 1 1 1 1 1	لا افعل شيئا احل المشكلة بشكل مباشر مع المعلم المعني اكتب رسالة للمعلم المعني اطرح الموضوع على المشرف التربوي او المديرية اخرى في حال اخرى ، اشرح
HT54.01 HT54.02 HT54.03 HT54.04		888	لا أعلم / رفض
HT55	كيف تعلم بحصول تقدم علمي لتلاميذك؟	1 1 1 1 1 1 1	ملاحظة صفية مراقبة نتائج امتحانات التلاميذ التي يجريها المعلمون أقيم التلاميذ شفويا بنفسي. ملاحظة الواجبات والفروض البيتية المعطاة للتلاميذ يقدم المعلمون لي تقارير عن تطور مستوى التلاميذ تقييمات نهاية الفصل الدراسي أخرى/ حدد
HT55.01 HT55.02 HT55.03 HT55.04 HT55.05 HT55.06 HT55.07	{ لا تقرأ الاجوبة ، فقط ضع دائرة حول الاجابة المطابقة}.	888	I don't know/ refused
HT56	في بداية العام الدراسي وحسب الخطة الحالية لوزارة التربية ، هل حصلت مدرستك على العدد الكافي من الكتب المدرسية لكل تلاميذك؟	0 1 لا - اذهب الي 888	لا نعم → لا أعلم / رفض
HT57	إذا كان الجواب كلا ، كم كانت الفترة الزمنية لحين تسلمكم الكتب الناقصة؟	0 1 2 3 4 5 888	لم أستلم الكتب على الاطلاق سنة واحدة أربعة أو خمسة شهور شهرين أو ثلاثة شهر واحد أسبوعين أو أقل لا أعلم / رفض

HT58	هل لديكم مكتبة في المدرسة؟	لا no . → نعم yes . لأعلم / رفض .	0 لا - أذهب الى 1 888
HT59	هل يستطيع التلاميذ الوصول الى الكتب الموجودة في المكتبة؟	لا No . → نعم Yes . لأعلم / رفض .	0 لا - أذهب الى 1 888
HT60	كم مرة يحصل التلاميذ على الكتب من المكتبة؟	شهرياً . أسبوعياً . يوميًا . لأعلم / رفض .	1 2 3 888
HT61 HT61.01 HT61.02 HT61.03 HT61.04 HT61.05 HT61.06	أين يستطيع التلاميذ قراءة كتب المكتبة؟ (لا تقرأ الاجوبة فقط ضع دائرة حول الاجابة المطابقة)	في مكتبة المدرسة . في الصف . في المنزل . في أماكن أخرى في المدرسة . لأعلم / رفض .	1 1 1 1 888
HT62	بأي صف تتوقع أن يتمكن التلاميذ من قراءة اللغة العربية بطلاقة؟ ( لا تقرأ الخيارات فقط اشر اجابات المدير )	الصف الاول . الصف الثاني . الصف الثالث . الصف الرابع او أعلى . لأعلم / رفض .	1 2 3 4 888
HT63	بأي صف تتوقع أن يتمكن التلاميذ من كتابة اللغة العربية؟ (لا تقرأ الخيارات فقط اشر اجابات المدير)	الصف الاول . الصف الثاني . الصف الثالث . الصف الرابع او أعلى . لأعلم / رفض .	1 2 3 4 888
HT64	هل يوجد مجلس للآباء والمعلمين في هذه المدرسة؟	لا . → نعم . لأعلم / رفض .	0 لا - أذهب الى 1 888
HT65	كم مرة اجتمع هذه المجلس في العام الدراسي الماضي؟	لم يجتمع على الاطلاق . مرة في السنة . مرة كل شهرين أو ثلاثة . مرة كل شهر . مرة كل أسبوع . لأعلم / رفض .	0 1 2 3 4 888
HT66	يشكل عام ، هل انت مرتاح للدعم الذي يقدمه مجلس الآباء والمعلمين للمدرسة؟	لا . نعم . لأعلم / رفض .	0 1 888
HT67	يشكل عام ، هل انت مرتاح لمستوى مشاركة الآباء في العمل المدرسي؟	لا . نعم . لأعلم / رفض .	0 1 888



HT73	ما هي نسبة التلاميذ الذين يحصلون على وجبات مجانية عن طريق هذه البرامج؟	. قليلة 1 . ربع 2 . نصف 3 . معظمهم 4 . كل 5 . لا أعلم / رفض 888
سأسألك الآن عدد من الأسئلة عن مستوى السلامة في مدرستك		
HT74	هل هناك أي شيء في بنايات المدرسة قد يشكل مشكلة سلامة بالنسبة للتلاميذ؟ إذا الجواب نعم اشرح رجاء	. لا 0 . نعم 1 . أشرح 888 لا أعلم / رفض
74.01		
HT75	هل تشعر بالامان داخل مدرستك؟	. لا 0 . نعم 1 . لا - أذهب الى . لا أعلم / رفض 888
HT76	إذا كان الجواب لا / اشرح كيف ذلك رجاء	
HT77	هل تشعر أن المعلمين يكونون بأمان داخل المدرسة؟	. لا 0 . نعم 1 . لا - أذهب الى . لا أعلم / رفض 888
HT78	إذا كان الجواب لا / اشرح كيف ذلك رجاء	
HT79	هل تعتقد أن التلاميذ يشعرون بأمان في مدرستهم؟	. لا 0 . نعم 1 . لا - أذهب الى . لا أعلم / رفض 888
HT80	إذا كان الجواب لا / اشرح كيف ذلك رجاء	
HT81	هل تشارك مدرستك في نشاطات لاصفية او احتفالات معينة داخل وخارج المدرسة ؟	. لا 0 . لا - أذهب الى . نعم 1 . لا أعلم / رفض 888
HT82	أذا كان الجواب نعم ، ما نوع النشاطات؟ [ لا تقرأ اختيارات الاجابة ، ضع دائرة حول الاجابات المعطاة ]	. معارض 1 . معرض فنية 1 . مسابقات رياضية 1 . نشاطات دينية 1 . منافسات مدرسية 1 . سفرات مدرسية 1 . أخرى/ حدد 1 888 لا أعلم / رفض
82.01		
82.02		
82.03		
82.04		
82.05		
82.06		
82.07		

HT83	بمقاييس من واحد الى خمسة ، خامسا هو ممتاز واولا هو ضعيف جدا ، كيف تصف علاقتك بموظفي مديرية التربية؟	<p>1 . اولاً ، ضعيف جدا</p> <p>2 . ثانياً ، ضعيف</p> <p>3 . ثالثاً ، لا جيد ولا ضعيف</p> <p>4 . رابعاً ، جيد</p> <p>5 . خامساً ، ممتاز</p>	888
HT84	هل تعتقد ان الوزارة متعاونة مع طلباتك للدعم؟	<p>0 . ليست كذلك على الاطلاق</p> <p>1 . احيانا هي كذلك</p> <p>2 . دائما هي كذلك</p> <p>888 . لأعلم /رفض</p>	
HT85	قدم مقترح واحد لغرض تحسين الاداء في نظام المدارس الابتدائية.		(1)
	وقت الانتهاء (استخدم طريقة 24 ساعة)	[CPC33] End time > Start Time	:
	شكرا جزيلاً		

## Teacher Questionnaire

الإداة الخاصة بالمعلم

Label

T1 أسم المدرسة  
 T2 رقم المدرسة  
 T3 رقم المعلم  
 T4 أسم الشخص المسؤول عن التقييم  
 T5 رمز الشخص المسؤول عن التقييم  
 T6 أسم المشرف  
 T7 رمز المشرف  
 T8 توقيع المشرف

ملاحظة أن كافة التعليمات والخاصة بالشخص الي يجري المقابلة مكتوبة بالخط العريض وبالحروف الكبيرة. لاتقرأ الاجوبة على الشخص الذي تقابله مالم

T9	وقت البدء (أستخدم طريقة 24 ساعة)	_____ :													
T10	تاريخ المقابلة	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>D</td> <td>D</td> <td>M</td> <td>M</td> <td>Y</td> <td>Y</td> </tr> </table>							D	D	M	M	Y	Y	
D	D	M	M	Y	Y										
T11	نتيجة المقابلة	رفض / أنهى المقابلة ..... 1 تمت بصورة جزئية ..... 2 تمت ..... 3													
T12	هل هي معلمة؟	لا ..... 0 نعم ..... 1													
T13	ماهي لغتك الام؟	العربية ..... 1 الكردية ..... 2 التركمانية ..... 3 الاشورية ..... 4 أخرى / حدد ..... 5													
T13.01		..... 9													
T14	ماهو أعلى مؤهل علمي حاصل عليه؟	شهادة الاعدادية ..... 2 دبلوم ..... 3 بكالوريوس ..... 4 ماجستير ..... 5 أخرى/ حدد ..... 6 لااعلم/ رفض ..... 888													
T15	ما هو مجال تخصصك؟	عام ..... 1 عربي ..... 2 رياضيات ..... 3 اسلامية ..... 4 علوم ..... 5 رياضة ..... 6 فنية ..... 7 لغة انكليزية ..... 8 أخرى/ حدد ..... 9 لااعلم/ رفض ..... 888													
T15.01															

T16	خلال التدريب الذي سبق التعيين ، هل تلقيت تدريباً متخصصاً في كيفية تدريس مادة القراءة؟	لا ..... 0 نعم ..... 1 لاعلم/رفض ..... 888
T17	انتهاء الخدمة ، هل اشتركت في اية دورات تدريبية في موضوع كيفية تدريس مادة القراءة؟	لا ..... 0 <input type="checkbox"/> SKIP TO T20 نعم ..... 1 لاعلم/رفض ..... 888
T18	هل تمكنت من تطبيق ما تعلمته من الدورات التدريبية حول تدريس مادة القراءة؟	لا ..... 0 نعم أحياناً ..... 1 نعم عادةً ..... 2 نعم دائماً ..... 3 لاعلم/رفض ..... 888
T19	إذا كان الجواب نعم يرجى ذكر مثال حول كيفية تمكّنك من تطبيق الدروس التي تعلمتها خلال التدريبات	لم يذكر أي مثال ..... 0 ذكر مثال ..... 1 لاعلم/رفض ..... 888
T20	خلال التدريب الذي سبق التعيين ، هل تلقيت تدريباً متخصصاً في موضوع كيفية تدريس مادة الرياضيات؟	لا ..... 0 نعم ..... 1 لاعلم/رفض ..... 888
T21	انتهاء الخدمة ، هل اشتركت في اية دورات تدريبية في موضوع كيفية تدريس مادة الرياضيات؟	لا ..... 0 <input type="checkbox"/> اذهب الناهب الى نعم ..... 1 لاعلم/رفض ..... 888
T22	هل تمكنت من تطبيق ما تعلمته خلال دورات طرق تدريس الرياضيات؟	لا ..... 0 نعم أحياناً ..... 1 نعم عادةً ..... 2 نعم دائماً ..... 3 لاعلم/رفض ..... 888
T23	إذا كان الجواب نعم يرجى ذكر مثال حول كيفية تمكّنك من تطبيق الدروس التي تلقيتها خلال التدريب	لم يذكر أي مثال ..... 0 ذكر مثال ..... 1 لاعلم/رفض ..... 888
T24	ما الصف أو الصفوف التي تقوم بتدريسها خلال هذه السنة؟ {أشر } حول كل الاجابات المطابقة	الصف الاول ..... 1 الصف الثاني ..... 1 الصف الثالث ..... 1 الصف الرابع ..... 1 الصف الخامس ..... 1 الصف السادس ..... 1 الصف السابع ..... 1 الصف الثامن ..... 1 الصف التاسع ..... 1
T25	هل تقوم بتدريس نفس الصف منذ بدء لعام الدراسي؟	لا ..... 0 نعم ..... 1 لاعلم/رفض ..... 888
T26	هل تحتفظ بسجل لحضور وغياب التلاميذ؟	لا ..... 0 <input type="checkbox"/> نعم ..... 1 لاعلم/رفض ..... 888
T27	هل بإمكانك رؤية سجل حضور التلاميذ لطفاً؟	لم يكن السجل متوفراً ..... 1 تستكمل سجلات حضور التلاميذ يوميا ..... 2 تستكمل سجلات حضور التلاميذ اسبوعيا ..... 3 تستكمل سجلات حضور التلاميذ كل اسبوعين ..... 4 تستكمل سجلات حضور التلاميذ شهريا ..... 5 أخرى ..... 6

T28	سجل تاريخ آخر مرة تم فيها تدوين الحضور		D D M M Y Y	
T29	في هذا الصف كم تلميذة تم تسجيلها؟			888
T30	في هذا الصف كم تلميذة تم تسجيلها؟			888
T31	كم هو عدد التلاميذ الذكور في الصف الراسيين من العام الماضي؟	تلاميذ ذكور لاعلم/ رفض		888
T32	كم هو عدد التلميذات في الصف الراسيات من العام الماضي؟	بنات لاعلم/ رفض		888
T33	في الايام الاعتيادية كم يبلغ عدد الغياب من التلاميذ؟	لا أعلم / رفض		888
T34	في الايام الاعتيادية كم عدد التلاميذ الذين يأتون متأخرين؟ <b>تعريف كلمة متأخر هو التلميذ الذي يحضر متأخرا على الاقل 15 بعد بداية الدرس</b>	لا أعلم / رفض		888
T35	هل تتعاون مع زملائك في وضع خطة لدرس؟ ذا كان الجواب نعم ، كم مرة يحصل ذلك؟	لا ..... 0 نعم، 2-4 مرات في الاسبوع ..... 1 نعم، خمس مرات في الاسبوع ..... 2 نعم، مرة كل أسبوعين ..... 3 نعم، شهريا ..... 4 لا أعلم/ رفض ..... 5 888		
T36	هل يقوم المدير او معاونه بتدقيق خطط الدروس؟	لا ..... 0 <input type="checkbox"/> أذهب الى ..... 1 نعم ..... 888 لا أعلم/ رفض ..... <input type="checkbox"/> أذهب الى		
T37	أذ كان الجواب نعم ، كم مرة يحدث ذلك عادة؟	مرة كل سنة ..... 1 مرة كل شهرين أو ثلاثة ..... 2 مرة كل شهر ..... 3 مرة كل أسبوعين ..... 4 مرة كل أسبوع ..... 5 يوميًا ..... 6 لا أعلم/ رفض ..... 888		
T38	هل ترى ان الكتب المدرسية التي توزعها الوزارة مفيدة؟	لا ليست مفيدة ..... 0 مفيدة على نحو معتدل ..... 1 مفيدة جدا ..... 2 لا أعلم/ رفض ..... 888		
T39	عند احتياجك لمساعدة في مجال التدريس ، من تستشير؟	لا احتاج الى مساعدة أبدا ..... 0 لا يوجد شخص أطلب منه المساعدة ..... 1 أنظم اجتماعات مع المعلمين ..... 1 أناقش الأمر عرضيا مع المعلمين ..... 1 المدير ..... 1 المعلم الاقدم ..... 1 أطلب النصح من المشرف التربوي أو متخصص في المادة ..... 1 أخرى/ حدد ..... 1 لا أعلم / رفض ..... 888		

T40	كم مرة يقوم المدير أو معاونه بملاحظتك أثناء التدريس؟	ولا مرة ..... 0 مرة كل سنة ..... 1 مرة كل شهرين أو ثلاثة ..... 2 مرة كل شهر ..... 3 مرة كل أسبوعين ..... 4 مرة كل أسبوع ..... 5 يومياً ..... 6 لأعلم/رفض ..... 888
T41	منذ بدء العام الدراسي الحالي ، هل قام المشرف التربوي بزيارة المدرسة؟ إذا كان الجواب نعم ، كم مرة؟	ولا مرة ..... 0 ☐ مرة كل سنة ..... 1 مرة كل شهرين أو ثلاثة ..... 2 مرة كل شهر ..... 3 مرة كل أسبوعين ..... 4 مرة كل أسبوع ..... 5 يومياً ..... 6 لأعلم/رفض ..... 888 ☐
T42	وهل قدم المشرف التربوي النصح حول نظام أو أنضباط التلاميذ؟	لا ..... 0 نعم ..... 1 لأعلم/رفض ..... 888
T43	هل قام المشرف التربوي بتقديم النصح حول تقييم أو قياس أداء التلاميذ؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T44	هل قام المشرف التربوي بتقديم النصح حول التدريس؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T45	هل قام المشرف التربوي بتقديم معلومات أو إرشادات رداً على سؤال طرحته عليه؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T46	كيف تقوم بقياس مدى التقدم العلمي لتلاميذك؟ لا تقراً الاجابات فقط ) ضع دائرة حول الاجابة المطابقة	امتحانات تحريرية ..... 1 تقييم شفهي ..... 1 بحوث ومشاريع ..... 1 فواجب بيتي ..... 1 تقييم نهاية السنة ..... 1 أخرى/ حدد ..... 1
T47	كيف تتم الأفادة من نتائج الامتحانات التحريرية والشفوية في تدريسك؟ لا تقراً الخيارات ، فقط ضع دائرة حول الاجابات الملائمة	اصنف مستوى التلاميذ ..... 1 أقيم مستوى فهم التلاميذ للمادة ..... 1 أضع خطط التدريس ..... 1 أكيف الدرس ليتلائم مع احتياجات التلاميذ ..... 1 /أخرى _ ..... 1 لأعلم / رفض ..... 888
T48	كيف تتعامل مع التلاميذ ضعفاء المستوى العلمي في صفك؟ لا تقراً الخيارات ، فقط ضع دائرة حول الردود المعطاة	لا تعاملهم بشكل مختلف ..... 0 تركز على التلميذ الاضعف ..... 1 تجري اختبارات يومية ..... 1 تشجع التلاميذ ..... 1 تتصل بولي امرهم بشكل مستمر ..... 1 أخرى/ حدد _ ..... 1 لأعلم / رفض ..... 888

T49	كيف تتعامل مع التلاميذ المشاكسين والعدائين في الصف؟ لا تقرأ الخيارات ، فقط ضع دائرة حول الرد المعطى	لا افعل شيئاً / اتجاهلهم ..... 0 الاتصال بأولياء امورهم ..... 1 أتحدث مع المشاكسين وأقدم النصح ..... 1 اعطيهم المزيد من الواجبات البيتية ..... 1 اعاقبهم انضباطياً ..... 1 استخدم عقوبات بدنية † ..... 1 أخرى ، وضح ..... 1 لأعلم / رفض ..... 888
T50	تم هو عدد الآباء أو أولياء الامور الذين يتابعون الواجب البيتى لابنائهم؟	لأحد ..... 0 البعض ..... 1 معظمهم ..... 2 كلهم ..... 3 لأعلم / رفض ..... 888
T51	يشكل عام ، هل أنت راض عن مشاركة الآباء لأبنائهم في ادائهم الدراسي؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T52	بأي صف تتوقع أن يتمكن التلاميذ من قراءة اللغة العربية بطلاقة؟ ( لا تقرأ الخيارات فقط اشر أجابات المدير)	الصف الاول ..... 1 الصف الثاني ..... 2 الصف الثالث ..... 3 الصف الرابع أو أعلى ..... 4 لأعلم / رفض ..... 888
T53	بأي صف تعتقد انه من المناسب للاطفال أن يبدأو كتابة اللغة العربية؟ لا تقرأ الاجابات فقط اشر على اجابة المعلم.	الصف الاول ..... 1 الصف الثاني ..... 2 الصف الثالث ..... 3 الصف الرابع أو أعلى ..... 4 لأعلم / رفض ..... 888
□ الان سوف اسالك عدد من الاسئلة عن السلامة في مدرستك!		
T54	هل تشعر بالامان في مدرستك؟	لا ..... 0 نعم ..... 1 اذهب الى 56 اذهب الى 56 لأعلم / رفض ..... 888
T55	اذا كان الجواب كلا ، أشرح رجاءا	_____
T56	هل تشعر أن التلاميذ يشعرون بالامان في المدرسة؟	لا ..... 0 نعم ..... 1 اذهب الى 58 اذهب الى 58 لأعلم / رفض ..... 888
T57	ذا كان الجواب كلا ، أشرح رجاء	_____
T58	هل تعتقد ان علاقتك مع ادارة المدرسة جيدة؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T59	هل تستلم عادة راتبك في موعده المحدد؟	لا ..... 0 نعم ..... 1 لأعلم / رفض ..... 888
T60	وقت الانتهاء ( استخدم طريقة 24 ساعة)	_____ :

## Student Questionnaire

## الأداة الخاصة بالطالب

يرجى ملاحظة أن التعليمات الخاصة بالشخص الذي يجري المقابلة مكتوبة بالخط العريض. يرجى عدم قراءة خيارات الاجوبة المعطاة للشخص الذي تقابله  
مالم تجد في السؤال طلبا صريحا وواضحا بذلك.

:

وقت البدء (استخدم نظام 24 ساعة)

S11

تاريخ المقابلة

اليوم	الشهر	السنة

S12

وضع المقابلة

رفض: اشكر الطالب ثم انهي المقابلة

1

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2

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3

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تمت المقابلة بشكل جزئي

تمت بشكل كامل

S13

هل الطالب أنثى؟

0

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1

.

لا

نعم

S14

كم عمرك؟

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S15

ما اللغة التي تتحدث بها عادة في المنزل؟

1

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2

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3

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العربية

الانجليزية

الفرنسية

4	.	أخرى / حدد	
2 3	.	الصف الثاني الصف الثالث	S16 في أي صف أنت (لاحظ إذا لم يكن في الصف الثاني أو الثالث ، اشكره وأشرح له أن الاختبار لتلاميذ الصفين الثاني والثالث فقط)
1 2 3 888	.	الاول الثاني الثالث لأعلم/ رفض	S17 في أي صف كنت في العام الماضي؟ (لا تحاول الاستعلام من خلال السؤال فيما إذا كان الطالب راسبا من العام الماضي)
0 1 888	.	سيراً على الاقدام بمفرده سيراً برفقة أحد الاقارب سيراً برفقة أحد أفراد العائلة البالغين بواسطة باصات النقل العام وبمفردي أخرى / حدد رجاء <hr/> لأعلم / رفض	S18 كيف تذهب الى المدرسة في الايام الاعتيادية؟

0	.	لا يوجد لدى الطالب كراسة. انتقل إلى قسم 22	هل بإمكانني رؤية كراسة اللغة العربية الخاصة بك رجاءً؟	S19
1	.	ربع الكراسة	إذا كانت الإجابة نعم ، يرجى ملاحظة عدد الصفحات المستخدمة في الكراسة. ( أعط بعض الملاحظات الايجابية بخصوص أداء الطالب , لا تعلق على الدرجات المنخفضة للطالب أو على ملاحظات المعلم)	
2	.	نصف الكراسة		
3	.	ثلاثة أرباع الكراسة		
4	.	كل صفحات الكراسة		
888	.	لأعلم / رفض		
0	.	مستعمل	هل كان كتاب التمارين الذي قمت باستلامه جديدا أم مستخدم سابقا؟	S20
1	.	جديد		
2	.			
3	.	لأعلم/ رفض		
		ولا صفحة بعض الصفحات معظم الصفحات كل الصفحات	يرجى ملاحظة عدد الصفحات المؤشرة من قبل المعلم أو التي تم تصحيح الاخطاء فيها.	S21
		ولا صفحة بعض الصفحات معظم الصفحات كل الصفحات	يرجى ملاحظة عدد الصفحات التي قام المعلم بوضع ملاحظة عليها أو قام بوضع تعليق أو أية تغذية راجعة.	
			ماذا يفعل المعلم حينما يكون أداؤك جيدا في الدرس	S22

0	.	لاشيء	أو الامتحان؟
1	.	يمتدحني	
2	.	يمنحني جائزة	
3	.	يعفيني من الاعمال الروتينية أو الواجب البيتي.	
4	.	أشياء أخرى / حدد	
888	.	لا أعلم / رفض	S22.01
1	.	يقوم المعلم بتلخيص \ إعادة شرح السؤال	S23
2	.	يقوم المعلم بتشجيع الطالب على المحاولة مرة أخرى	
3	.	يقوم المعلم بسؤال طالب آخر	
4	.	يقوم المعلم بإعادة طرح السؤال	
5	.	يصحح المعلم الإجابة لكنه لا يوبخ الطالب/ة	
6	.	يقوم المعلم بتوبيخ الطالب الطالبة	
7	.	يقوم المعلم بطرد الطالب/الطالبة خارج الصف	
8	.	يقوم المعلم بضرب الطالب	
9	.	يوقف الطالب في زاوية الصف	
10	.	أخرى / حدد	
888	.	لا أعلم/ رفض	
0	.	لا.... انتقل إلى قسم 27	S24
1	.	نعم	

888	.	لأعلم / رفض		
0	.	ولا يوم	كم مرة خلال الأسبوع الماضي كان عندكم واجب بيتي؟	S25
1	.	يوم واحد		
2	.	يومان		
3	.	ثلاثة أيام		
4	.	أربعة أيام		
5	.	خمسة أيام		
888	.	لأعلم / رفض		
0	.	لا	هل قام المعلم بمتابعة الواجب البيتي خلال الاسبوع الماضي؟	S26
1	.	نعم		
888	.	لأعلم / رفض		
1	.	لا أحد	S27	
1	.	أخ/ أخت	S27.01	
1	.	أم/ أب	S27.2	
1	.	جدة /جد	S27.3	
1	.	أخرى / حدد	S27.4	
888	.	لأعلم/ رفض	S27.05	
0	.	لا	هل تناولت أية وجبة طعام قبل حضورك الى المدرسة هذا اليوم؟	S28
1	.	نعم		
888	.	لأعلم / رفض		
		كلا no	هل تتناول وجبات خفيفة اثناء الدوام بالمدرسة؟	S29

		نعم yes لا أعلم / رفض	
			S30
0	.	كلا ، لم يحصل أن تغيبت في الاسبوع الماضي	هل تغيبت عن المدرسة خلال الاسبوع الماضي؟ إذا كانت الاجابة نعم ، فما سبب الغياب؟
1	.	نعم ، لأنني كنت مريضا	
2	.		
3	.	نعم ، لأنني كنت مضطرا لأداء عمل آخر في المنزل	
4	.	نعم ، لأنني كنت مضطرا للعناية بأحد المرضى من أفراد عائلتي	
5	.	نعم ، لأنني لم أجد وسيلة نقل	
6	.	نعم ، لأن الجو كان سيئاً	
7	.	نعم ، بسبب حالة طارئة	
8	.	نعم ، لأنه من الخطر الشديد الذهاب الى المدرسة	
9	.	نعم ، لأنه من الخطر الشديد التواجد في المدرسة	
10	.	نعم, لأنني لم استيقظ مبكرا	
11	.	نعم ، لأنني كنت مضطرا لرعاية أحد أخواني	
12	.	نعم ، لأنني لم أجد الزي المدرسي الخاص بي أو أن زي المدرسة لم يكن جاهزا ذلك اليوم	
13	.	نعم ، لأن المعلمين أو التلاميذ يعاملونني بطريقة سيئة	
	.	نعم, لسبب آخر (حدد)	
		لا أعلم/ رفض	S31

0	كلا ، لم يحصل أن تأخرت في الأسبوع الماضي	هل حصل وأن تأخرت عن المدرسة في أي يوم من أيام الأسبوع الماضي؟ ( إذا كان الجواب نعم) فمالسبب وراء تأخرك؟	S31.01
1	نعم ، لأنني كنت مريضا		
2	نعم ، لأنني كنت مضطرا لأداء عمل آخر في المنزل		
3	نعم ، لأنني كنت مضطرا للعناية بأحد المرضى من أفراد عائلتي		
4	نعم ، لأنني لم أجد وسيلة نقل		
5	نعم ، لأن الجو كان سيئا		
6	نعم ، بسبب وجود حالة طارئة		
7	نعم ، لأنه من الخطر الشديد الذهاب الى المدرسة		
8	نعم ، لأنه من الخطر الشديد التواجد في المدرسة		
9	نعم، لأنني لم استيقظ مبكرا		
10	نعم ، لأنني كنت مضطرا لرعاية أحد أخواني		
11	نعم ، لأنني لم أجد زي المدرسة أو أن زي المدرسة لم يكن جاهزا ذلك اليوم		
12	نعم ، لأن المعلمين أو التلاميذ يعاملونني بطريقة سيئة		
13	نعم، لسبب آخر (حدد)		
888	لأعلم/ رفض		
0	لا إذا كان الجواب كلا اذهب الى الفقرة S33	في آخر مرة حصلت فيها على درجة جيدة في امتحان أو واجب معين في المدرسة ، هل علم والدك أو ولي أمرك بتلك الدرجة الجيدة؟	S32
1	نعم لأعلم/ رفض		

1	.	لم يفعلوا أي شيء	إذا كان الجواب (نعم), ما لذي فعله والداك حيال ذلك؟	S33					
2	.	قدموا لي التهنئة أو قاموا بتشجيعي							
3	.	قاموا بمعانقتي / قبلوني							
4	.	أعطوني هدية							
5	.	أخرى/ حدد	S33.01						
888	.	لأعلم/ رفض							
		No لا Yes نعم لأعلم/ رفض /	هل كنت في الروضة قبل المدرسة؟	S34					
		لا نعم لأعلم/ رفض	هل لديك وقت متاح للقراءة في صفك الدراسي أو في مكتبة المدرسة؟	S35					
0	.	لا	بعيدا عن كتب المدرسة هل لديك كتب أخرى تقوم بقراءتها في المنزل؟	S36					
1	.	نعم							
888	.	لأعلم/ رفض							
0	.	أبدا لم أفعل	كم مرة تقرأ عادة بصوت مرتفع لشخص آخر في بيتك؟	S37					
1	.	أحيانا							
2	.	مرة واحدة في الاسبوع							
3	.	مرتين أو ثلاث في الاسبوع							

4 888	.	يومياً لأعلم / رفض		
0 1 2 3 4 888	.	لا يوجد أحياناً مرة واحدة في الاسبوع مرتين أو ثلاثة في الاسبوع يومياً لأعلم/ رفض	هل هناك شخص في منزلك يقوم بالقراءة لك ؟ إذا كان الجواب نعم ، كم مرة يقرأ لك؟	S38
اقرأ الفقرات التالية للتلاميذ (هل تمتلك عائلتك الأشياء التالية؟)				S39
0 1	.	لا نعم	مذياع	S39.01
0 1	.	لا نعم	تلفزيون	S39.02
0 1	.	لا نعم	دراجة هوائية	S39.03
0 1	.	لا نعم	سيارة	S39.04
0 1	.	لا نعم	حاسوب	S.39.05
0 1	.	لا نعم	مطبخ داخل منزلك	S39.06
0 1	.	لا نعم	حاسوب	S39.07
ما نوع المرفق الصحي في منزلك؟ اقرأ الخيارات				
0 1	.	لا نعم	حمامات خارجية غير مرتبطة بالصرف الصحي	S45
0 1	.	لا نعم	حمامات خارجية مرتبطة بالصرف الصحي	S46

0	.	لا	حمامات داخلية مرتبطة بالصرف الصحي	S47
1	.	نعم Yes		
ما نوع غازا فرن الطبخ المستخدم لإعداد الوجبات في منزلك؟ وهل تستخدمه عائلتك في العادة؟ أقرأ الخيارات .				
0	.	لا	حطب للطبخ	S48
1	.	نعم		
0	.	لا	موقد على الحطب	S49
1	.	نعم		
0	.	لا	طباق على الغاز أو الكهرباء	S50
1	.	نعم		
من اين تحصل على مياه الاستحمام في منزلك؟				
0	.	لا		S51
1	.	نعم	نهر/ مياه ينابيع	
0	.	لا	خزان / بئر	S52
1	.	نعم		
0	.	لا	حنفية مياه أو أنبوب مياه داخل منزلك	S53
1	.	نعم		
0	.	لا	صهريج مياه	S54
1	.	نعم		
أخرى				
S55				
ماذا تريد ان تصبح عندما تكبر؟ (لا تقرأ الخيارات ، ضع دائرة حول الجواب المعطى)				
		طبيب عالم نجم رياضي سياسي مهندس		S56
ماهو الدرس الذي يعجبك؟				
		اللغة العربية		S57

	العلوم الرياضيات اللغة الانكليزية التربية الاسلامية		
	اللغة العربية العلوم الرياضيات اللغة الانكليزية التربية الاسلامية	ما هو الدرس الذي لا يعجبك ؟ (لا تقرأ الخيارات ، ضع دائرة حول الجواب (المعطى)	S58
0 1 2 3 888	لا القراءة فقط الرياضيات فقط كلاهما لأعلم/ رفض	هل تأخذ دروس خصوصية في القراءة أو الرياضيات خارج المدرسة؟	S59
:		وقت انتهاء التقييم ( استخدم نظام 24 ساعة)	S60
شكرا جزيلاً			

## School Observation



December 2011

School Observation Tool

Label

<p>ASMA AL MADRASA SOB1 RQAM AL MADRASA SOB2 ASMA AL SHAKHS AL MSOOL EN SOB3 AJRAA LTAQYIM RIMZ AL SHAKHS AL DHI AJRY SOB4 AL TAQYIM ASMA AL MASHRAF SOB5 RIMZ AL MASHRAF SOB6 TAQYIM AL MASHRAF SOB7</p>
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:		وقت البدء (استخدم طريقة 24 ساعة)	SOB8												
<table border="1"> <tr> <td>يوم</td> <td>يوم</td> <td>شهر</td> <td>شهر</td> <td>سنة</td> <td>سنة</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		يوم	يوم	شهر	شهر	سنة	سنة							موعد المقابلة	SOB9
يوم	يوم	شهر	شهر	سنة	سنة										
1 2 3	رفض / أنهي المقابلة تمت بصورة جزئية تمت	نتيجة المقابلة	SOB10												
<table border="1"> <tr> <td></td> <td></td> </tr> </table>				كم عدد الصفوف في المدرسة؟	SOB11										
<table border="1"> <tr> <td></td> <td></td> </tr> </table>				كم عدد الصفوف المستخدمة حالياً للتدريس والتعليم؟	SOB12										
0 1	لا نعم	هل مباني المدرسة والمناطق المحيطة بها نظيفة ومرتبطة؟	SOB13												
0 اذبح الى 1	لا نعم	هل المدرسة بحاجة الى تصليحات مهمة وضرورية؟	SOB14												
1 1 1 1 1 1 1	شبابيك مكسورة سقف او سطح جدران صفوف جدران مدرسة بحالة سيئة ساحات المدرسة اخرى اذا اخرى ، اشرح	اذا كان الجواب نعم ، اشر كافة انواع التصليحات المطلوبة؟ [ضع دائرة حول اي خيار تجده مطابق]	SOB15 15.01 15.02 15.03 15.04 15.05 15.06												

0 أذهب الى	لا	هل المدرسة مزودة بالكهرباء؟ إذا كان الجواب نعم ، هل تشتغل لهذا اليوم؟	SOB16
1	نعم لكنها كانت مقطوعة هذا اليوم		
2	نعم الكهرباء متوفرة هذا اليوم		
1	الكهرباء الوطنية	إذا كان الجواب نعم ، ما هو مصدر الكهرباء؟ [ضع دائرة حول الجواب الذي تجده مطابقاً]	SOB17
1	المولد		17.01
1	كلاهما		17.02
1	اخرى		17.03
	إذا اخرى ، اشرح		17.04
			17.05
0 أذهب الى	لا يوجد	ما هو مصدر مياه الشرب الذي تستخدمه المدرسة؟	SOB18
1	بئر		
2	مضخة يدوية		
3	حنفية		
4	خزان لمياه الامطار		
5	مضخة دات المكيس		
6	نهر		
0	لا	هل مصادر المياه هذه تعمل؟ ( هل كان الماء متوفراً أثناء الزيارة	SOB19
1	نعم		
	مرافق صحية	كم عدد المرايق الصحية أو المراحيض المتحركة القابلة للاستخدام؟ المرحاض القابل للاستخدام هو	SOB20
	مرافق صحية	من بين هذه المرايق الصحية القابلة للاستعمال كم منها (ان وجدت) مخصصة للبنات؟	SOB21
0	غير نظيفة على الاطلاق	هل كانت المرايق الصحية نظيفة؟	SOB22
1	نظيفة نوعا ما		
2	نظيفة جدا		
0	لا توجد مكتبة في المدرسة	هل توجد مكتبة في المدرسة؟ إذا كان الجواب نعم ؟ فهل كان فيها تلاميذ أثناء الزيارة؟	SOB23
1	توجد لكن لم يكن فيها تلاميذ		
2	نعم وكان فيها تلاميذ		
1	لا يوجد	هل يوجد هاتف شغال في المدرسة؟ (ضع دائرة حول الاجابة المطابقة)	SOB24
1	نعم يوجد هاتف أرضي		24.01
1	نعم لدى المدير هاتف نقال		24.02
1	أخرى: حدد		24.03
1			24.04
0	لا	هل هناك ساحة للعب؟	SOB25
1	نعم		

أذا كان العدد صفر أذهب الى

0	.....	لا	هل المدرسة محاطة بسور؟	SOB26
1	.....	نعم ، جزء منها محاط بسور		
2	.....	نعم محاطة كلها بسور		
0	.....	لا	هل يوجد حراس للمدرسة؟	SOB27
1	.....	نعم		
0	.....	لا	هل تعلق اعلانات الملاحظات والمستجدات في ساحات المدرسة ليتم توصيل المعلومات الادارية والمهنية الضرورية؟	SOB26
1	.....	نعم		
: _____			وقت الانتهاء (استخدم طريقة 24 ساعة)	

## Classroom Inventory

Label													
<p>اسم المدرسة رقم المدرسة رقم المعلم اسم الشخص المسؤول عن لتقييم الرمز الخاص بالشخص المسؤول عن التقييم اسم المشرف الرمز الخاص بالمشرف توقيع المشرف</p>													
_____	وقت بدء اجراء التقييم ( استخدم طريقة 24 ساعة ) starting Time												
<table border="1"> <tr> <td>Y</td> <td>Y</td> <td>M</td> <td>M</td> <td>D</td> <td>D</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Y	Y	M	M	D	D							تاريخ اجراء المقابلة
Y	Y	M	M	D	D								
_____	تلاميذ ذكور												
_____	تلميذات												
_____	ح تى تحصل على العدد المتوفر من الكتب المدرسية ، اطلب من التلاميذ ان يمسه كل منهم بكتاب اللغة العربية وان يرفعه الى الاعلى ( لو تطلب الامر اطلب ان يتم اخراج عدد التلاميذ الذين يملكون كتاب اللغة العربية المدرسي												
_____	رجاء اطلب من التلاميذ الامساك بكتاب الرياضيات ورفعه عاليا في( اذا تطلب الامر اطلب اخراج كتاب الرياضيات من الخزانة وتوزيعه على الطلاب كالمعادة												
_____	عدد التلاميذ الذين لديهم كتاب رياضيات												
_____	عدد التلاميذ الذين لديهم كتاب تمارين اللغة												
_____	عدد التلاميذ الذين لديهم كتاب تمارين الرياضيات												
_____	عدد التلاميذ الذين لديهم قلم رصاص/ قلم جاف												
1	هل يمتلك المعلم الاشياء التالية؟ ( ضع دائرة حول المواد التي يمتلكها المعلم)												
1	سيورة سوداء أو بيضاء .....												
1	طباشير/قلم ماركر للوحة .....												
1	السوداء / البيضاء .....												
1	قلم رصاص/ قلم حبر .....												
1	دفتر ملاحظات .....												
1	كتاب اللغة المدرسي .....												
1	كتاب الرياضيات .....												

0 أذهب	رفض / ليس لديه دفتر خطة الدليل	هل بإمكانني رؤية دفتر خطة الدرس؟	CIN17
1	نعم		
		إذا كان الجواب نعم ، يرجى الاجابة على الاسئلة التالية بحسب ملاحظتك لدفتر الخطة	CIN18
0	لا	هل يوجد جدول زمني للتدرج في المنهج في مقدمة دفتر خطة الدرس؟	CIN18.01
1	نعم		
		ما تاريخ اخر خطة لدرس كتبت؟	CIN18.02
1	لا يوجد تأثير لتواريخ في خطط الدروس		
2	لا يوجد خطط للدروس في الدفتر		
0	لا	هل وقع المدير على اخر خطة لدرس ؟	CIN18.03
1	نعم		
0	لا توجد	كم عدد الكتب / الكراسات الأخرى غير لكتب المدرسية الميسرة والمتوفرة للتلاميذ ( غير ممنوعة عنهم) ويمكنهم قراءتها؟	CIN19
1	1-4		
2	5-9		
3	10-19		
4	20-39		
5	40+		
0	لا توجد	كم عدد المجالات المتوفرة والميسرة للتلاميذ لقراءتها؟	CIN20
1	1-4		
2	5-9		
3	10-19		
4	20-39		
5	40+		
0	لا	هل تعرض نتائج التلاميذ على نشرات الجدران؟	CIN21
1	نعم		
0	لا توجد مصطبات. كراسي أو رحلات	حدد ماهي قطع الاثاث المتوفرة لخدمة التلاميذ؟	CIN22
1	مصطبات/كراسي موجودة لكن بدون رحلات		
2	مصطبات/ كراسي ورحلات موجودة		

0 1	..... ..... → أذهب الى	لا نعم	عدد المقاعد كافيا للتلاميذ ( تأكد من وجود تلاميذ يجلسون على الارض أو أن هناك أكثر من تلميذ واحد يجلس على نفس المقعد )	CIN23
			إذا كان الجواب كلا ، أشر الى حالة المقاعد للطلبة ( ضع دائرة حول الخيار المناسب)	CIN24
1 1 1 1	..... ..... ..... .....		يجلس التلاميذ على الارض الاطفال واقفون يجلس عدد من الأطفال على مقعد واحد . يجلس الطلبة على رحلات أو يتناوب الأطفال على الجلوس على المقاعد	CIN24.01 CIN24.02 CIN24.03 CIN24.04
0 1 2 3	..... ..... ..... .....	صفوف مجاميع صغيرة دائرة circle أخرى/ أشرح	أشرح طريقة ترتيب الرحلات أو المصطبات / الكراسي المستخدمة في الصف؟	CIN25
			وقت الانتهاء ( أستخدم طريقة 24 ساعة )	CIN26
			Ending Time (use 24 hours format) :	

## Classroom Observation (Reading)



## مشاهدة الصف الدراسي/ القراءة في المرحلة الأساسية

### الملاحظة

13 12 11 10 9 8 7 6 5 4 3 2 1

وقت بدء المشاهدة

وقت انتهاء المشاهدة

أ. تركيز اهتمام المعلم (اختر بديل واحد فقط)

9 كل الصف

10 مجموعة صغيرة

11 طالب واحد

12 غير ذلك/ لم يكن تركيزه على الطلبة

13 لم يكن المعلم في الصف

ب. المحتوى التعليمي

14 أصوات بدون طباعة

15 حروف/ أصوات

16 قراءة كلمات منفصلة

17 قراءة جمل

18 مفردات ( معاني كلمات)

19 كتابة/ أملاء

20 قراءة نصوص

21 قراءة أستيعابية - نص

22 أشياء أخرى أو لأعلم

ج. النشاط الذي يقوم به المعلم

23 القراءة بصوت عال

24 كتابة

25 شرح

26 تحدث

27 الإصغاء الى الطلبة

28 مراقبة الطلبة

29 متابعة نشاطات الطلبة الكتابية

30 أخرى/ سلوك غير تعليمي



## Classroom Observation (Mathematics)



## مشاهدة الصف الدراسي/ الرياضيات في المرحلة الأساسية

### الملاحظة

13	12	11	10	9	8	7	6	5	4	3	2	1		
													وقت بدء المشاهدة	
													وقت انتهاء المشاهدة	
أ. تركيز اهتمام المعلم (اختر بديل واحد فقط)														
													9 كل الصف	
													10 مجموعة صغيرة	
													11 طالب واحد	
													12 غير ذلك لم يكن تركيزه على الطلبة	
													13 لم يكن المعلم في الصف	
ب. محتويات علمية														
													14 يردد الأرقام	
													15 تحديد الرقم	
													16 العد	
													17 مقارنة المجاميع	
													18 الجمع- عدد واحد	
													19 الجمع - عددين أو أكثر	
													20 الطرح رقم واحد	
													21 الطرح عددين أو أكثر	
													22 الضرب	
													23 القسمة	
													24 الكسور	
													25 الكسور العشرية والنسب المئوية	
													26 النقود	
													27 الوقت	
													28 أدوات القياس القياسية	
													29 لعمل باستخدام البيانات والرسومات الخ.	
													30 الهندسة ( أشكال ورموز )	
													31 أخرى لا أعلم	
													32 أنجز باستخدام الأشياء	
													33 انجز باستخدام الصور	

ج. نشاط المعلم - اللغة												
											التسميع, الاعداد	34
											كتابة المسألة على السبورة	35
											شرح	36
											لإصغاء الى الطلاب	37
											يطرح أسئلة	38
											مراقبة الطلبة	39
											قضايا غير تعليمية ( اخلاقية... الخ )	41
											أخرى.	42
. النشاطات التي يقوم بها الطالب اللغة												
											التكرار / التسميع	43
											الاصغاء أو مشاهدة المعلم	44
											طرح الأسئلة	45
											الاجابة على الاسئلة	46
											النقل من الصبورة	47
											الكتابة على الصبورة	48
											حل المشكلة عن طريق أشراك جميع الطلاب	49
											نشاط لمجموعة صغيرة ( في الرحلة)	50
											نشاط طالب ( جالس على الرحلة)	51
											أخرى مشاريع ألعاب الخ	52
											بعيدا عن الدرس تحدث ,نوم ,لعب	53
المواد المستخدمة - اللغة												
											سبورة	54
											كتاب منهجي	55
											كتب تشاط ورقة نشاط, نسخ.	56
											بطاقات خاطفة	57
											ملصقات / جداول حائط	58
											يدوي عد	59
											يدوي هندسة	60
											يدوي كسور	61
											لوحات جيبيه	62
											أشكال أو قطع مغناطيسية	63
											دفتر ملاحظات خاصة بالطلبة	64
											خرى - لأعلم	65

# Annex C: Sample Methodology and Weighting

This annex presents additional details about the sample design for the Iraq 2012 EGRA-EGMA-SSME study.

## Stage 1: Sample Selection and Weighting of Schools

The Iraq Education Management Information Systems (EMIS) unit provided a list of all public primary schools in six provinces of Iraq: Anbar, Baghdad, Karbala, Maysan, Najaf, and Wassit. After removing: double entered schools (n=8), schools with a second grade enrollment less than 20 (n=231), schools with a third grade enrollment less than 20 (n=107), schools located in districts deemed too dangerous for the assessment team to enter<sup>64</sup> (n=159), and school which participated in the pilot study (n=7), a final list of 2,264 schools was used to draw the sample of schools. The 2,264 schools contained an estimated 307,059 grade 2 and grade 3 students.

Before drawing the random sample of 54 schools, the 2,264 schools were stratified by province (Anbar, Baghdad, Karbala, Maysan, Najaf, and Wassit). Within each stratum, schools were sorted by district and the combined enrollment of grades 2 and 3. An equal number of nine schools was selected in each province to maximize the precision within each province. Schools were randomly selected with probability proportional to combined grade 2 and grade 3 enrollment.

For each selected school, two replacement schools were selected, to be used if the sampled school were not available to participate or were not eligible however; no schools were replaced.

To make the sample representative of the six region population, school weights were calculated as the inverse of the selection probability of the school (Weight1, Stage 1 selection) and then scaled to the total number of schools for each Province.

$$\text{Weight}_{School} = \text{Weight1} \cdot \text{Scaled School Weight}$$

Where:

$$\text{Weight1}(s, i) = \frac{[\text{Total Number of Grade2 + Grade3 students}] \text{ in Province}(s)}{[\text{Number Grade2 + Grade 3 in Selected School}(i)] \text{ in Province}(s)}$$

$$\text{Scaled School Weight}(s) = \frac{[\text{Sum of Weight1 of All Schools}] \text{ in Province}(s)}{[\text{Total Number of Grade2 + Grade3 students}] \text{ in Province}(s)}$$

$s = 1 \text{ to } 6 \text{ Provinces}$

$i = 1 \text{ to } 54 \text{ sampled Schools}$

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<sup>64</sup>District deemed too dangerous to enter: Ain Al Temur (Karbala Province), Bedrah (Wassit Province), and Suwairah (Wassit Province). Sub-districts deemed too dangerous to enter: Al Rafi'ee (Maysan Province) and Musharrah (Maysan Province).

## Stage 2: Sample Selection and Weighting of Class/Teacher

The second stage of selection involves sampling class/teachers. Upon arrival at each selected school, the research team made a listed all of the grade 2 classes and selected one class at random with equal probability. The selection process was repeated for the grade 3 class. Because the total number of classes by grade was not available in the EMIS data, it was not possible to scale the class/teacher weights to the provincial level. Therefore, the class/teacher weights for each grade in each school were created by multiplying the school weights by the total number of classes found in the grade.

$$\text{ClassTeacher Weight}(i, j) = \text{School Weight}(i) \cdot \text{Weight2}(j)$$

Where:

$$\text{Weight2}(j) = \frac{\text{Total Number of Classes in School}(i) \text{ Grade } (j)}{\text{Sampled Number of Classes in School}(i) \text{ Grade } (j)}$$

Where:  $j = 1$  to 108 sampled grade 2 and 3 classes.

## Stage 3: Sample Selection and Weight of Students

The third stage of selection (not stratified) was for students present on the day of assessment. Assessors went to the selected grade 2 class and randomly select 10 students from that class. If 10 or fewer students were present, the assessor would automatically select all of the students in that class. The same procedure was followed for the grade 3 class.

Student weights were calculated by multiplying the class/teacher weight by the probability of selecting the student. This was then multiplied by the student scaled weight. Tables C1 and C2 show the unweighted counts and percentage of sampled students along with the weighted counts and percentages, which reflect the provincial counts according the Iraq EMIS unit.

$$\text{Student Weight}(i, j) = \text{ClassTeacher Weight}(i, j) \cdot \text{Weight3}(i, j) \cdot \text{Student Scaled Weight}(t)$$

where:  $t = 1$  to 12 strata-grade. (6 provinces \*2 grades)

$$\text{Weight3}(i, j) = \frac{\text{Total Number of Students in School}(i) \text{ Grade } (j)}{\text{Sampled Number of Students in School}(i) \text{ Grade } (j)}$$

$$\text{Scaled School Weight}(t) = \frac{[\text{Sum of Weights of Selected Students}] \text{in Stratum}(s) \text{ Grade}(t)}{[\text{Total Number of Students}] \text{in Stratum}(s) \text{ Grade}(t)}$$

**Table C1: Number of total grade 2 students in the population\* and weighted sampled number of grade 2 students by Province.**

Six Strata - Province	Unweighted Sample		Weighted Sample	
	Counts of sampled grade 2 students	Percent of sampled grade 2 students	Weighted counts of sampled grade 2 students	Weighted percentage of grade 2 students (%)
Anbar	99	17.1	8218	5.2
Baghdad	100	17.2	30797	19.3
Karbala	91	15.7	31851	20
Maysan	99	17.1	26092	16.2
Najaf	92	15.8	35438	22.2
Wasit	99	17.1	27028	17
Total	580	100.0	159424	100.0
*Population counts are based on Iraq EMIS data after removing schools as indicated in the first paragraph				

**Table C2: Number of total grade 3 students in the population\* and sampled number of grade 3 students by Province.**

Six Strata - Province	Unweighted Sample		Weighted Sample	
	Counts of sampled grade 2 students	Percent of sampled grade 2 students	Weighted counts of sampled grade 2 students	Weighted percentage of grade 2 students (%)
Anbar	96	16.7	8136	5.5
Baghdad	102	17.8	29270	19.8
Karbala	87	15.2	29186	19.8
Maysan	98	17.1	23238	15.7
Najaf	91	15.9	33058	22.4
Wasit	99	17.3	24747	16.8
Total	573	100.0	147635	100.0
*Population counts are based on Iraq EMIS data after removing schools as indicated in the first paragraph				

## A Note about Excluding the Initial EGRA Tests Results

When analyzing EGRA outcomes, a portion of the students in Karbala, Maysan, Najaf, and Wasit had to be excluded because they took the initial EGRA test (see Section 2.7), however no students in Anbar and Bagdad were excluded because all sampled students in these two provinces took the second, corrected EGRA test. To avoid Bagdad and Anbar over-representing the sample when EGRA outcomes were analyzed, a second set of student weights were calculated for only students who took the second EGRA exam. The second student weight was calculated by simply rescaling the initial weight to the total number of students in each Province. The first and second columns of *Table C3* and *Table C4* depict the unweighted counts and percentage of students who completed the second EGRA test. The 2<sup>nd</sup> and 3<sup>rd</sup> columns show the weighted counts and percentage by province when the second (rescaled) weight is applied. The last two columns show what the weighted counts and percentages would have been had the initial weight been applied to the sub-set of students who took the second EGRA test. If the first weight were used for EGRA analysis, Anbar and Bagdad would have been over represented.

**Table C3: Number of grade 2 students who took the second EGRA exam, the weighted sample counts and percentages when the appropriate weight (rescaled) is applied to the subset of students, and weighted sample counts and percentages when the inappropriate (initial) weight is applied.**

Grade 2 Students who took the 2 <sup>nd</sup> EGRA Test	Unweighted		Rescaled Student Weight		Initial Student Weight	
	Number of grade 2 students	Percent of grade 2 students	Weighted number of grade 2 students	Weighted percent of grade 2 students	Weighted Number of grade 2 students	Weighted percent of grade 2 students
Anbar	99	23.5	8218	5.2	8218	7.9
Baghdad	100	23.7	30797	19.3	30797	29.4
Karbala	42	10	31851	20	12942	12.4
Maysan	69	16.4	26092	16.2	19126	18.3
Najaf	42	10	35438	22.2	15753	15.1
Wasit	69	16.4	27028	17	17697	16.9
Total	99	100.0	159424	100.0	104533	100.0

**Table C4: Number of grade 3 students who took the second EGRA exam, the weighted sample counts and percentages when the appropriate weight (rescaled) is applied to the subset of students, and weighted sample counts and percentages when the inappropriate (initial) weight is applied.**

Grade 3 Students who took the 2 <sup>nd</sup> EGRA Test	Unweighted		Rescaled Student Weight		Initial Student Weight	
	Number of grade 3 students	Percent of grade 3 students	Weighted number of grade 3 students	Weighted percent of grade 3 students (%)	Weighted number of grade 3 students	Weighted percent of grade 3 students (%)
Anbar	96		8136	5.5	8136	8.5
Baghdad	102		29270	19.8	29270	30.7
Karbala	38		29186	19.8	12148	12.7
Maysan	68		23238	15.7	13504	14.2
Najaf	42		33058	22.4	15176	15.9
Wasit	69		24747	16.8	17175	18
Total	415		147635	100	95409	100