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Results of the 2013 Early Grade Reading and Early Grade Mathematics Assessments (EGRA & EGMA) in Bauchi State

Nigeria Northern Education Initiative (NEI)



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

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Abbreviations

ANFEA	Adult and Non-Formal Education Agency
CLPM	correct letters per minute
CLSPM	correct letter sounds per minute
CWPM	correct words per minute
CNONWPM	correct non-words per minute
COE	college of education
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
IQTE	Integrated Qur’anic and Tsangaya Education
LGEA	Local Government Education Authority
MOE	Ministry of Education
NCE	Nigeria Certificate in Education
NEI	Nigeria Northern Education Initiative
ORF	oral reading fluency
P2	Primary (grade) 2
P3	Primary (grade) 3
PES	primary education studies
PGDE	Post-Graduate Diploma in Education
RTI	RTI International
SBMC	School-based Management Committee
SUBEB	State Universal Basic Education Board
USAID	U.S. Agency for International Development

Executive Summary

In May 2013, the Nigeria Northern Education Initiative (NEI), with support from the U.S. Agency for International Development (USAID), collaborated with several institutions in Nigeria to conduct the Early Grade Reading and the Early Grade Mathematics Assessments (EGRA and EGMA). EGRA and EGMA measure foundational reading and mathematics skills that pupils in primary school need to master in the early grades, and without which they will struggle to achieve in later years.

EGRA in Hausa, EGRA in English, and EGMA were conducted in government primary and Integrated Qur'anic and Tsangaya Education (IQTE) schools in Bauchi and Sokoto states. The purpose of the exercise was to measure the performance of Primary 2 (P2), Primary 3 (P3), and Stage 1 and Stage 2 pupils on foundational reading and mathematics skills in order to

- monitor learning achievement in the states,
- gather data that can be used to inform state-level planning and budgeting, and
- improve instruction.

The State Universal Basic Education Boards (SUBEBs), the Ministries of Education, the colleges of education (COEs), and others in the two states all played a vital role in developing and administering the assessments, as well as contributing to data analysis, report writing, and results dissemination.

In each state, EGRA and EGMA were administered to P2 and P3 pupils in a random sample of 40 government primary schools, and to Stage 1 and Stage 2 pupils in a random sample of 40 IQTE schools. A total of 80 schools (located in rural areas) were visited. The majority of schools did not have electricity, a library, drinking water, or functioning toilets for boys and girls.

Twenty-four pupils were randomly selected at each school: 12 per grade or stage—6 boys and 6 girls—whenever possible based on the number of children present. In Bauchi, a total of 1,881 pupils (948 P2 and P3 pupils and 933 Stage 1 and Stage 2 pupils) participated in the study. All children were assessed in Hausa reading and mathematics, while only P3 and Stage 2 pupils were assessed in English reading. During school visits, assessors also administered questionnaires to pupils, head teachers, and teachers to collect demographic and contextual information to inform the results. Data collected from the sample were weighted so that the results would be representative of the population of schools and pupils in the state.

Important findings are as follows:

- Most pupils have not mastered foundational reading and mathematics skills. Across both school types, pupils in IQTE schools had higher scores in both reading (and Hausa reading in particular) and mathematics, though their overall performance was still low.

- In government schools, boys' and girls' scores in reading and mathematics are similarly low. However, in IQTE schools, significant gender differences in performance exist between boys and girls, especially in Stage 2.
- Pupils' scores increased only slightly from P2 to P3, indicating that an additional year of school has not produced meaningful learning gains, particularly in reading. The increase in average scores is greater between Stages 1 and Stage 2, though overall learning levels remain low in IQTE schools.

ES1. EGRA results

Figure ES-1 and *Table ES-1* below summarize the EGRA results. The graph shows the percentage of children who scored zero for each Hausa EGRA subtask (that is, the percentage of children who did not provide a single correct response), while *Table ES-1* contains the average (mean) score for the fluency tasks (i.e., the average number of letters or words per minute).

Figure ES-1: Percentage of Children Scoring 0, by school type, grade, and subtask

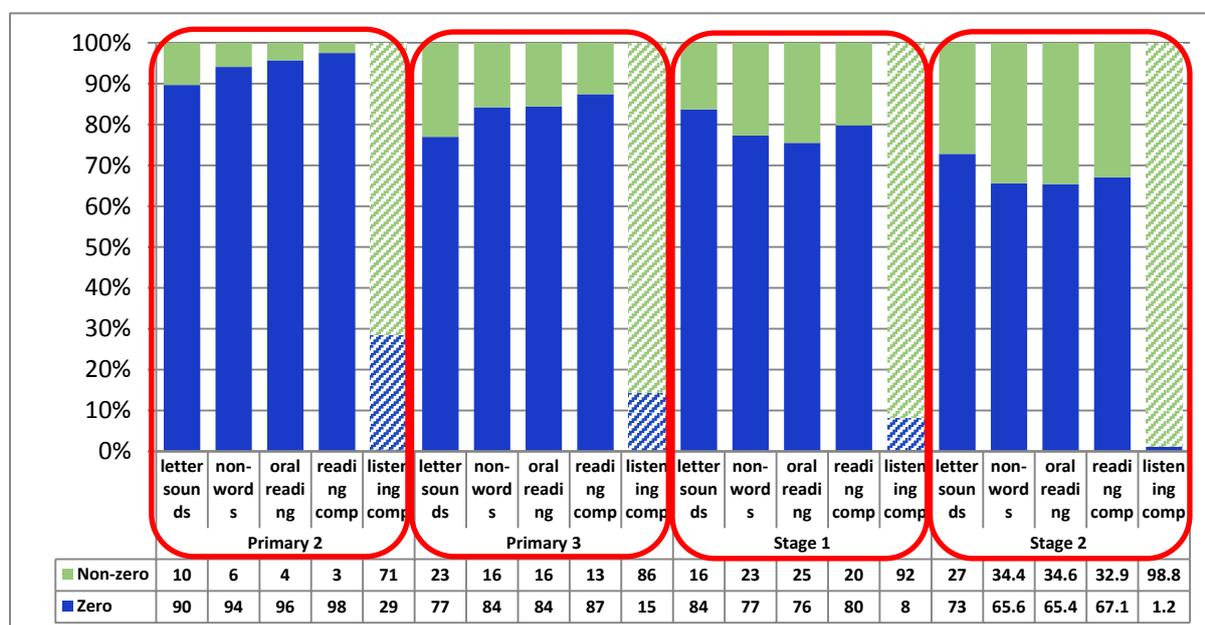


Table ES-1. Summary of EGRA Hausa and EGRA English results

EGRA results by language, grade, and subtask: Average (mean) correct items per minute						
Subtask	HAUSA				ENGLISH	
	P2	P3	Stage 1	Stage 2	P3	Stage 2
Letter sound	0.9	2.8	2.3	4.5*	2.8	4
Non-word	0.6	2.0	5.5*	8.4*	2.4	9
Oral reading	0.9	3.4	9.7*	14.7*	1.8	10.5

*Indicates a statistically significant difference in boys' and girls' average scores.

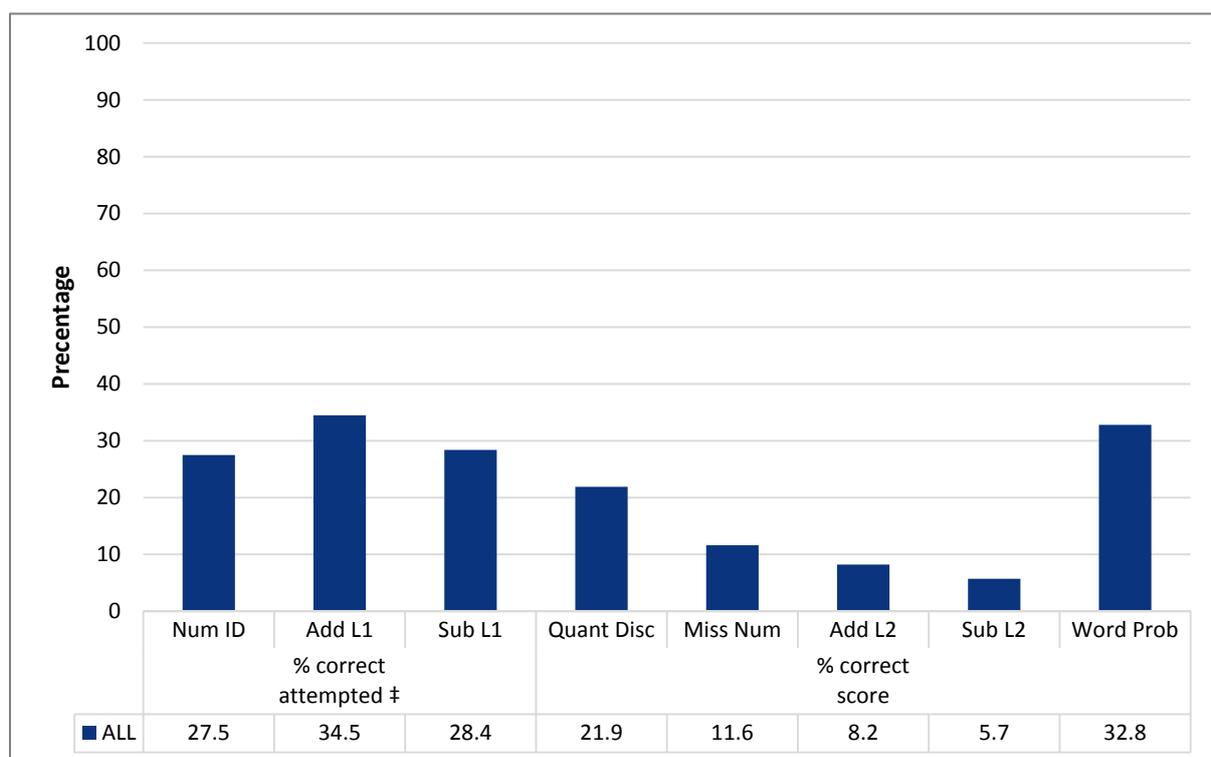
As the scores above indicate, most pupils have not mastered any foundational reading skills. In both Hausa and English, the vast majority of pupils assessed—often 75% to

90%—actually scored zero on any given subtask, indicating that few children are acquiring the basic foundational reading skills needed to succeed in school. While all pupils performed poorly overall, children who reported speaking Fulfulde as their home language performed more poorly in oral reading fluency rates that were lower than their Hausa than children who reported speaking Hausa. Few P3 children demonstrate the English-language proficiency necessary to succeed in P4, where the language of instruction is English. This finding is particularly important because it indicates that children are not likely to be able to read to learn and to succeed in the upper grades. Pupils performed best in the Hausa listening comprehension subtask, indicating that they understand the language and have the potential to read with comprehension—if they receive explicit instruction in key reading skills.

ES2. EGMA results

Figure ES-2 summarizes the results of all the pupils in Bauchi on the EGMA assessment. Performance in foundational mathematics skills was similarly low. Pupils performed better on the more procedural items (number identification, and addition and subtraction level 1) and less well on the conceptual items that require them to understand and apply their procedural knowledge. The pupils also performed better on the orally presented word problems than they did on any of the other subtasks. This finding indicates that pupils have the capacity to perform well in (written) mathematics if the subject is taught well and focuses more on understanding than on memorization of facts and procedures.

Figure ES-2: Summary of EGMA scores for all pupils in Bauchi state



‡These tasks were timed and the means reported for these subtasks are the mean number of correct responses in terms of the number of items attempted, for all other subtasks the means reported represent the number of correct responses in terms of the number of items.

ES3. Overall findings and factors that influence learning outcomes

Analysis of the EGRA and EGMA results vis-à-vis information gathered from questionnaires administered to pupils, head teachers, and teachers identified several factors that had a strongly positive influence on learning outcomes in the state. These factors are consistent with findings from other learning assessment studies and point to several aspects of the learning environment that need to be improved. Specifically, better performing pupils on the EGRA and EGMA in Bauchi and Sokoto states were found to have the following:

- Access to appropriate learning materials (i.e., Hausa and English reading books and textbooks and exercise books for mathematics)
- Teachers who come to school and are supported by head teachers who are aware of children's progress
- Time every day to read books in their classrooms or school libraries
- A home environment supportive of learning (i.e., a family member who reads to them or helps them with homework).

These findings are particularly important given the current learning environment in Bauchi, which is hindered by several challenges that directly affect learning outcomes. Specifically, data collected during the EGRA/EGMA survey revealed the following key challenges:

- ***Lack of appropriate teaching and learning resources for early grade reading and mathematics.*** The majority of head teachers and teachers indicated that their schools did not have enough teaching materials for Hausa, English, and mathematics in the early grades and stages (between 60% and more than 90% of head teachers, depending on the subject and school type). Pupils also reported a shortage of learning materials, with only 22% to 45% of pupils reporting they had a Hausa reading book, English book, or mathematics book, depending on the school type and subject.
- ***Lack of teacher training.*** Only about one-third to one-half of teachers in both school types reported receiving pre-service or in-service training specifically in early grade instruction of Hausa, English, and/or mathematics, with rates of training in Hausa reading generally lower than for English and mathematics.
- ***High rates of pupil absenteeism.*** Approximately 30% of government school pupils in P2 and 3 were absent on the day of testing, with girls' rates of absenteeism higher than the boys in P2. The rate of absenteeism in IQTE pupils was somewhat lower, with approximately 20%–30% of Stage 1 and Stage 2 children absent (depending on the level and gender), with girls having a higher absenteeism rate than boys.
- ***High rates of teacher absenteeism:*** Approximately half of pupils reported that at least one of their P2 or P3 teachers (a Hausa and English and/or mathematics teacher) was absent on the day of the assessment. P2 and P3 teachers present on the day of testing also self-reported high levels of

absenteeism. In Bauchi, nearly 31% of the P2 and P3 government teachers and 22% of IQTE teachers surveyed said they had been absent at least 1 day the previous week.

- **Lack of time and support for learning.** Only about half of pupils in both school types reported having time to read at school. They also reported low levels of support at home, with only about half indicating that someone at home reads to them or helps them with homework. Only 7% of P2 and P3 pupils and 19% of IQTE pupils reported reading at home every day.

ES4. Recommendations

The EGRA and EGMA results from 2013 are an urgent call for action. A coordinated response among education sector stakeholders focused on the following key actions is needed:

- **Improve focus on early grade reading and mathematics in the basic education curriculum and increase the time spent on teaching them in schools.** The existing basic education curriculum needs to be updated to focus more on foundational reading and mathematics skills. Concurrently, performance standards and benchmarks for each reading skill, for each grade, should be developed so that teachers, parents, education authorities, and pupils know if children are acquiring foundational skills and performing at the level that is expected of them.
- **Train and support teachers to teach and assess early grade reading and mathematics.** A significant effort needs to be made to increase the focus of both pre- and in-service teacher training on the teaching of early grade reading and mathematics. COEs need to modify their pre-service teacher training programs to better prepare all teachers to teach foundational skills. New in-service programs must be developed and rolled out as soon as possible. Head teachers and teacher support officers, too, need to be trained and provided with resources so they can support teachers in their classrooms on an ongoing basis.
- **Provide schools with teaching and learning materials specific to early grade reading and mathematics.** While some resources exist, additional materials need to be developed (especially for early grade Hausa) and sufficient quantities made available at schools. Education authorities need to prioritize materials provision by assigning clear responsibility for materials development and by allocating (and releasing) the necessary funds to put books in the hands of all children. Children should have time each day to read books appropriate for early grade learning.
- **Foster parent and community support for children's learning.** Education authorities, PTAs and School-based Management Committees (SBMCs) should conduct outreach to encourage parents to regularly send children to school and to engage with their children in activities that build reading and mathematics skills. Head teachers and teachers can also support early grade learning by making parents aware of children's progress and providing them with ideas for supporting reading and mathematics learning at home.

Improving pupils' foundational skills in Hausa reading, mathematics, and English language will provide children with the skills necessary to succeed in school, contribute to their families' well-being, and participate in the country's overall development. The education sector, along with government authorities and parents, needs to move forward quickly to achieve this important goal.

1. Introduction

In May 2013, the Nigeria Northern Education Initiative (NEI) conducted an assessment of children's foundational skills in reading and mathematics using the Early Grade Reading Assessment (EGRA) in Hausa and English, and the Early Grade Mathematics Assessment (EGMA). The assessment was conducted in Bauchi and Sokoto states. In each state the assessment was conducted in a statewide sample of 40 government primary schools and 40 Integrated Qur'anic and Tsangaya Education (IQTE) schools. This report presents an analysis of results for Bauchi state based on a sample of 948 P2 and P3 pupils and 933 Stage 1 and Stage 2 pupils, for a total of 1,881 pupils from the 80 schools visited.¹

The EGRA and EGMA data collection on which this report is based was supported through the 4-year (2009–2013) Nigeria NEI project, funded by U.S. Agency for International Development (USAID) and implemented collaboratively by a consortium of partners, including the State Ministry of Education (MOE); the State Universal Basic Education Board (SUBEB); the state colleges of education; Creative Associates International, Inc.; RTI International; School-to-School International; and John Hopkins University, among others. The objective of NEI is to provide support to the key systems of planning, budgeting, teacher training, and quality assurance within the MOE and SUBEB. A component of NEI also provides direct support to orphans and vulnerable children and nonformal learning centers.

The 2013 EGRA/EGMA is a follow-up exercise to similar reading and mathematics assessments conducted in 2010, 2011, and 2012. Similar to earlier studies, the 2013 assessments sought to gather information regarding children's level of foundational reading skills and mathematics skills in both government and IQTE schools. The objectives of this year's study were as follows:

- Monitor learning achievement in the state.
- Identify specific areas of reading and mathematics instruction that need to be improved.
- Provide data to inform state-level planning and budgeting.

The 2013 assessment included EGRA in both Hausa and English in order to analyze pupils' ability in both languages. Hausa is the language of the immediate environment that is supposed to be used for instruction in P1 through P3, while children are expected to acquire sufficient English language skills by P4, at which point the language of instruction becomes English. The 2013 assessment further sought to provide information regarding contextual factors that affect learning outcomes, with the aim of using this information to provide specific recommendations to education sector senior leadership and personnel, donors, communities and parents, and others on how to improve learning outcomes.

¹ The EGRA/EGMA 2013 Sokoto state report can be found at: www.eddataglobal.org. A brief on both states' results, as well as reports from previous years and additional information on EGRA and EGMA, can also be found at this website.

The EGRA/EGMA exercises in Bauchi and Sokoto were conducted in collaboration with a variety of state partners to build local capacity within the MOE, SUBEB, the colleges of education (COEs), and universities on all aspects of the assessments. Over the past 3 years and particularly during this year’s exercise, NEI project advisors have collaborated with education authorities to build local capacity in all steps of the process, including the following:

- Instrument development (including piloting)
- Sampling (of schools and pupils)
- Assessor training
- Data collection planning and management
- Data entry, processing, and analysis
- Results interpretation, report writing, and dissemination
- Using assessment results to inform education sector planning.

Building on previous work, the 2013 EGRA/EGMA included the involvement of local consultants who assisted with data analysis, as well as a collaborative report writing process that involved representatives from SUBEB and the COE who drafted the EGRA and EGMA reports, prepared dissemination materials, and facilitated a results dissemination and dialogue event with senior state and national level officials. As in previous data collections, representatives from the COEs, SUBEB, Local Government Education Authorities (LGEAs), and the MOE (including primary school teachers) administered the assessments and questionnaires in order to give education sector personnel firsthand experience with the concepts and methodology behind the assessments, as well as to expose them to the learning environment in schools throughout the state. A SUBEB-designated “Focal Person” worked closely with NEI throughout the year to facilitate collaboration and sustainability.

The 2013 EGRA/EGMA included the addition of IQTE schools to gather data regarding levels of learning within this complementary basic education system. The purpose of the IQTE schools, which are designated to receive government support, is to integrate elements of the basic education curriculum into traditional Qur’anic education. (More information on IQTE schools is provided in the box below).

This report provides a detailed overview of the data collected from the EGRA and EGMA assessments and related questionnaires administered to head teachers, teachers, and pupils. The report is organized as follows: **Section 2** provides an overview of the importance and reliability of orally assessing children’s reading and mathematics performance in the early grades, a description of the EGRA and EGMA instruments (purpose and description of the various subtasks), and information regarding the instrument adaptation process and construction of the EGRA and EGMA used in Bauchi. In **Section 3**, the report presents an overview of the survey methodology, including the sampling framework for data collection. **Section 4** provides a detailed overview of the sample population characteristics. **Section 5** is focused on a detailed analysis of the EGRA Hausa, EGRA English, and EGMA results by subtask. It also explores contextual factors that were found to affect learning outcomes. Lastly, **Section 6** summarizes key conclusions from the

assessment and provides recommendations for improving children's reading and mathematics outcomes in the state.

Overview of Integrated Qur'anic School Education (IQTE) system in Nigeria

The IQTE system grew out of a mandate from Nigeria's National Policy on Education to provide all school-age children in the country with a basic education. The federal government directed states to integrate elements of the formal school basic education curriculum into the existing Qur'anic school curriculum. As a result, traditional Qur'anic schools began adopting an integrated curriculum designed to enrich their traditional Islamic education. Schools that have adopted the curriculum are known as IQTE schools. A minimum of four contact hours per week is proscribed to effectively implement the formal basic component of the curriculum, although implementation is "at the discretion" of the school head teacher (or proprietor).

IQTE schools are divided into stages (as opposed to grades), which cover the following subjects:

- **Stage 1:** Lasts for 1 year, with curriculum material designed to be the equivalent of P1–P3 of formal schools. Subjects taught are local language literacy and numeracy, in addition to Arabic and Islamic foundation studies.
- **Stage 2:** Lasts for 2 years, with curriculum material designed to be the equivalent of P4–P6. Subjects taught are literacy (including English), mathematics, basic science, life skills, and social studies, plus Arabic and foundation studies. Pre-vocational skills may also be included to cater to pupils entering the labor market.

Oversight of IQTE schools is supposed to be provided by SUBEB, though information gathered during EGRA/EGMA school visits indicates that the extent of this support varies. Teachers who teach basic education subjects are deployed from the formal (government) schools, and SUBEB is designated to pay their salaries. Head teachers and teachers not teaching the formal basic education subjects are remunerated by parents. Proprietors (heads) of the IQTE schools are not required to have specific qualifications.

Although IQTE schools are supposed to enroll pupils aged three to 18, specific ages for each stage are not identified. Children from IQTE schools may also be "mainstreamed" into the traditional formal schools, though criteria for doing so are unclear. Moreover, while the IQTE schools are targeted towards children who are not in the formal school system (including children known as "almajiri"), data collected during the 2013 EGRA/EGMA revealed that many children attend both government schools and schools designated as part of the IQTE system.

Sources include the "Harmonised IQTE curriculum for the Mainstreaming of Basic Education Elements into Qur'anic Schools." State Universal Basic Education Board.

2. Overview of EGRA and EGMA

2.1 Why test early grade reading and mathematics?²

The ability to read and understand a simple text is a skill fundamental to learning. Without basic literacy skills, children are unable to read to learn—and therefore have little chance of succeeding in school and beyond. 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.³ Children who do not learn to read in the early grades (primary 1–3) are likely to fall further and further behind as they grow older. Moreover, pupils who do not learn to read in the first few grades are more likely to fall behind in other subjects, to repeat grades, and to eventually drop out.⁴

Similar to reading, a strong foundation in mathematics is crucial for success in later years, both in school and in the job market. Research has shown a child’s level of mathematics skills in the early grades to be a strong predictor of later academic achievement, as well as reading outcomes and attention skills.⁵ The problem-solving skills and mental agility and flexibility that children develop through mathematics transfer to other areas of life and work as well. Furthermore, the mathematics skills of a country’s children are becoming a matter of political currency because of international assessments such as the Trends in International Mathematics and Science Study (TIMSS).

For both reading and mathematics, research has come to a general consensus on key skills that children can and should gain in the first few years of school. For reading, this includes knowledge of the sounds of the letters of the alphabet, an ability to blend together sounds of the language to read words, an ability to read fluently (both accurately and with sufficient speed), and to understand what has been read. In mathematics, key skills include knowing and using number names, learning and understanding the values of numbers, knowing key symbols, and comparing and ordering sets of objects. These skills, which are described in the section below, are tested in EGRA and EGMA because of the research evidence linking them to academic achievement in later grades.

² The technical descriptions of the EGRA instrument and the explanations of the importance of early grade reading draw extensively from descriptions provided in the Early Grade Reading Assessment Toolkit (RTI, March 2009). The toolkit can be downloaded at www.eddataglobal.org.

³ Roskos, K., D. Strickland, J. Haase, and S. Malik. 2009. First Principles for Early Grades Reading Programs in Developing Countries. Prepared for USAID/EQUIP1 Project. Available at <http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf>.

⁴ This phenomenon, known as the “Matthew Effect,” is based on research showing that pupils scoring below a certain reading level by the end of grade 1 remain behind throughout their academic career, and the gap widens as they grow older. Source: Stanovich, K.E. (1986). Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy. *Reading Research Quarterly*, 21(4), 360–407. doi: 10.1598/RRQ.21.4.1.

⁵ Duncan, G. J., Claessens, A., Huston, A. C., Pagani, L. S., Engel, M., Sexton, H., . . . Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428-1446. doi: 10.1037/0012-1649.43.6.1428.

2.2 Purpose of EGRA and EGMA in Nigeria

The purpose of the 2013 EGRA and EGMA data collection in Bauchi and Sokoto states was to monitor learning achievement of pupils in government and IQTE schools. Specifically, the EGRA and EGMA results provide a detailed picture of pupils' reading ability in Hausa and English in the early grades/levels, as well as their skills in mathematics, that can inform the MOE, the SUBEB, the COEs, parents, donors, and others regarding the performance of the education system in teaching these fundamental skills. The results from the EGRA and EGMA give us an idea as to whether the education system, as a whole, is achieving its objective of enabling children to learn. The EGRA/EGMA data, as well as information collected from head teachers, teachers, and pupils, can then be used to inform state-level education sector planning and budgeting. Moreover, they can be used to identify specific areas of instruction that need to be improved in government and IQTE schools.

The 2013 data collection sought to gather information on pupils' reading ability in Hausa and in English for several reasons. First, the Nigerian National Policy on Education requires that the medium of instruction in P1 through P3 be the language of the immediate environment,⁶ which in Bauchi is primarily Hausa. Consequently, children must be able to read in Hausa to maximize their ability to learn in the early grades. Second, being proficient readers in Hausa will help children to learn to read English, the language they are expected to learn in starting from P4. This is because mastering a first language promotes cognitive development needed to more easily learn a second language, since many of the key skills related to reading are transferrable from one language to another.⁷ To adequately transfer these skills, however, children must be proficient readers in their mother tongue, or a familiar language, as well as receive consistent and robust language instruction in the second language.⁸

The 2013 assessment exercise also included an EGRA in English, which was administered only to P3 and IQTE Stage 2 pupils. The purpose of testing children's English language ability in P3 was to identify whether they had acquired sufficient English-language reading skills to be able to learn *in* English, the language of instruction starting in P4. Stage 2 pupils were also tested in English because it is a subject in the basic education curriculum included in the IQTE curriculum.

⁶ National Policy on Education – 4th Edition, 2004, pg. 16.

⁷ (1) Geva, E. 2006. Learning to Read in a Second Language: Research, Implications and Recommendations for Services. In *Encyclopedia on Early Childhood Development*. Edited by R. Tremblay, R. Barr, and R. Peters. Montreal, Quebec: Centre of Excellence for Early Childhood Development. Available at www.child-encyclopedia.com/documents/GevaANGxp.pdf. (2) Bialystock, E. 2006. *Bilingual in Development: Language, Literacy and Cognition*. Cambridge: Cambridge University Press.

⁸ Ball, Jessica (2010). Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years, UNESCO. Available at: <http://unesdoc.unesco.org/images/0018/001869/186961e.pdf>.

2.3 What EGRA and EGMA measure

2.3.1 EGRA

The EGRA subtasks are based on research regarding a comprehensive approach to reading acquisition across languages.⁹ These skills are described below:

- **Phonemic awareness:** The ability to identify sounds in words, to separate words into sounds, and to manipulate those sounds.
- **Alphabetic principle:** The ability to understand and apply the knowledge of how letters are linked to sounds to form letter-sound correspondences and spelling patterns.
- **Fluency:** The ability to read orally with speed, accuracy, and proper expression. EGRA measures oral reading fluency (ORF) because it has been shown to predict later skills in reading and comprehension.¹⁰
- **Comprehension:** The ability to actively engage with, and derive meaning from, the texts that are read.

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

2.3.2 EGMA

Subtasks included in the EGMA instrument are based on several criteria, in order to support the goal of providing stakeholders (from ministries of education to aid agencies to local education officials) with the information essential to making informed changes in teacher education and support, curriculum development, and implementation. These include the following criteria:

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

EGMA is an individually administered oral test, which allows for the targeted skills to be assessed without confounding problems with language or writing that might impede performance in math.

⁹ Although the importance and degree of each skill varies by language, research on reading in multiple languages has shown that in almost any alphabetic language in which print can be decoded into sounds, being able to read well requires a grasp of these basic skills.

¹⁰ Fuchs, L., Fuchs, D., Hosp, M. K., & Jenkins, J. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading*, 5(3): 239-256.

As in EGRA, the EGMA skills are tested in individual subtasks and presented in order of increased level of difficulty (i.e., number identification, then addition, etc.). Because the first few subtasks are easier, EGMA can therefore measure a range of mathematics abilities in the early grades.

2.4 Overview of EGRA, EGMA, and other survey instruments

Given variations in language, education systems, and learning assessment objectives, the EGRA and EGMA instruments, as well as other data collection instruments, are adapted for each country in which they are applied. This section describes the instrument adaptation and the specific subtasks used in Bauchi (and Sokoto) in 2013.

2.4.1 EGRA instruments

The early grade reading assessment used in Nigeria was developed to provide a way to measure a child's initial reading ability. Through a series of separate subtasks, the assessment measures various skills that are necessary building blocks for children to read fluently and comprehend text.

Development of the Nigeria EGRA in English first used in Bauchi (and Sokoto) took place in May 2010 to ensure that all sub-tests were appropriate for the Nigeria context. The EGRA in Hausa was later adapted in October 2010.

The process of adapting the instruments was led by technical experts, including a reading specialist and a Hausa linguist, and involved the collaboration of various education stakeholders from both Bauchi and Sokoto states. Subtasks and items included in the test were identified based on an analysis of the linguistic properties of the Hausa and English languages. For Hausa, a sample of text from the *Ka Koyi Karatu* early grade Hausa language books was analyzed to the frequency of letters and graphemes in the alphabet.

Both the EGRA in Hausa and the EGRA in English instruments were updated in 2013 with a team of Hausa and English specialists, teachers, and other education sector personnel from the SUBEBs, universities and COEs in both Bauchi and Sokoto. Items for the letter identification and non-word decoding task were reorganized so the order would be different from the previous assessment, though the items themselves remained the same. New ORF and listening comprehension passages were developed for both Hausa and English. For the EGRA in Hausa, all items were reviewed by people from both Bauchi and Sokoto to ensure that they were appropriate for the dialects used in each state.

Prior to data collection, the updated EGRA instrument and pupil questionnaire were pilot-tested in eight government and eight IQTE schools in Bauchi and Sokoto. (The revised teacher and head teacher questionnaires were also piloted with a sample of teachers.) One set of pupils was tested in each of the four new oral reading fluency passages (and associated comprehension questions), while another set of pupils was tested in the four new listening comprehension passages. All pupils participating in the pilot also were administered the letter sounds and non-word decoding subtasks, and half were administered the pupil questionnaire. The pilot test data from 262

government school pupils and 250 IQTE pupils were subsequently analyzed to identify which ORF passages and which listening comprehension passages were of a similar level of difficulty (and to ensure that all words were appropriate for the different state dialects). One passage for each of the subtasks, in Hausa and English, was identified to be included in the 2013 instrument, while a passage of a similar level of difficulty was selected to be used in a subsequent assessment, date to be determined.

The final Hausa and English EGRA instruments (which can be found in *Annex 1* and *Annex 2*) included the following subtests, with items specific to each language:

- **Letter sound identification** assessed a child’s ability to identify the sounds of the letters of the alphabet naturally, without hesitation. The subtask consisted of a page of 100 upper- and lowercase letters distributed in 10 rows of 10 letters. The 100 letters were listed in random order, and the number of times any given letter appears is determined by the frequency that letter appears in primary school texts (in the case of Hausa; for English, frequencies were based on existing analysis regarding English letter frequency). Pupils were asked to say the sounds of as many letters as they could in 1 minute. The score for this subtest is the number of letters a pupil correctly named in 1 minute, a measure known as correct letter sounds per minute, or CLSPM.
- **Non-word decoding** assessed a child’s ability to decode words, rather than simply recognize them by sight. It included words that could exist (based on the orthographic structure of the language), but do not, requiring children to use their decoding skills to properly read them. (For example, “nuk” is not a word in Hausa, and “kag” is not a word in English, but the words follow linguistic properties of the respective language.) Pupils were presented with a list of 50 “non-words” and asked to read as many as possible in 1 minute. The score for this subtask is the number of “non-words” read correctly in a minute (CNONWPM).
- **Oral reading fluency (ORF)** measured a child’s ability to read aloud a short narrative text passage accurately and at a good rate. To measure ORF, pupils were presented with a short fictional story (55 words long in Hausa and 51 words long in English) to read in 1 minute. The final oral reading fluency score is the number of words read aloud correctly in 1 minute.
- **Reading comprehension** measured a child’s ability to comprehend what he or she has read. After the pupil has read for 1 minute, the assessor asked the child questions based on the amount of text read during the oral reading subtask, described above. Questions were both direct (i.e., based on facts provided in the story) and inferential (i.e., require the child to use information in the story, as well as his or her own knowledge, to respond correctly). Pupils were not allowed to refer back to the text when answering the questions.
- **Listening comprehension** measures a child’s ability to understand a short, narrative story read to them orally. After reading the story once time, the assessor then asked the pupil five questions pertaining to the story.

2.4.2 EGMA instrument

The conceptual framework on which EGMA is based is grounded in extensive research that has been conducted over the past 60 years regarding mathematics' skills development.¹¹ Subtasks selected for EGMA were drawn from extensive research on early mathematics learning and assessment and were constructed by a panel of experts on mathematics education and cognition. To develop the EGMA protocol, developers systematically sampled early numeracy skills, particularly those underlying number sense.

The EGMA instrument used in Bauchi and Sokoto was adapted from the existing EGMA assessment template in consultation with SUBEB, COE, and others from the education sector prior to the 2012 EGMA data collection in the two states. During the instrument adaptation process, two versions of the instrument were developed and pilot tested. Analysis of the pilot results confirmed that both tests were a similar level of difficulty. One instrument was used for the 2012 data collection, while the second was used for the 2013 data collection. The instrument used in Bauchi and Sokoto in 2013 consisted of the follow six subtasks (see *Annex 3* for a copy of the instrument). 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.¹²

- **Number identification** assessed pupils' knowledge and ability to identify written number symbols. Pupils orally identified printed number symbols presented in a grid and were asked to identify as many numbers as they could in 1 minute. This subtask consisted of 20 one- to three-digit numbers arranged in order of increasing difficulty. Two scores were generated for this subtask: the number of correct responses made per minute and the percentage of correct responses for the items attempted in the time allocated.
- **Quantity discrimination** assessed pupils' ability to make judgments about differences by comparing quantities, represented by numbers. Each item presented to children consisted of two numbers. Pupils were asked to identify the larger number (e.g., "Which one is bigger?"). The number pairs used ranged from a pair of single-digit numbers to five pairs of double-digit numbers and four pairs of three-digit numbers. Throughout the items, the discriminating digits in the pairs were varied to ensure the pupils' understanding of place value, e.g., 55 vs. 45 and 63 vs. 65. This subtask consisted of 10 items arranged in order of increasing difficulty. One score was generated for this subtask: the percentage of correct responses for the task.

¹¹ E.g., 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, NJ: Erlbaum; 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 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, NC: Information Age.

¹² E.g., 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.

- **Missing number (number patterns)** assessed pupils' 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 (e.g. 4; 5; 6;). The pupil was asked to determine and name the missing number. Numbers used ranged from single-digit to three-digit numbers (maximum 600). Patterns used included counting forward and backward by ones, by fives, by tens, and by twos. This subtask consisted of 10 items arranged in order of increasing difficulty. One score was generated for this subtask: the percentage of correct responses for the task.
- **Addition and subtraction (Level 1)** assessed pupils' procedural knowledge and fluency in the basic operations of addition and subtraction. The items in these subtasks represent the foundational addition and subtraction "facts" that are at the heart of addition and subtraction with larger numbers. Without achieving some level of automaticity/fluency on the range of addition and subtraction "facts" represented by these items, there is little expectation that pupils will be able to perform addition and subtraction (let alone multiplication and division) with larger numbers.

In the assessment, addition and subtraction were assessed in separate tasks. In both of the tasks, pupils were presented with addition/subtraction items, with sums/differences below 20, and were asked to solve them mentally. The addition problems ranged from the addition of two single-digit numbers with sums less than 10, to two single-digit numbers with sums greater than 10 (i.e., involving the bridging of the ten). 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 a double-digit number resulting in a single-digit number (i.e., involving the bridging of the ten). Each subtask consisted of 20 items arranged in order of increasing difficulty, and pupils were asked to solve as many addition problems as they could in 1 minute. Two scores were generated for each subtask: the number of correct responses made per minute and the percentage of correct responses for the items attempted in the time allocated.

- **Addition and subtraction (Level 2)** assessed pupils' conceptual understanding of addition and subtraction as well as their ability to apply the procedural knowledge assessed in the two level 1 subtasks. Pupils 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. In the assessment, addition and subtraction were assessed in separate tasks. For these subtasks, pupils were presented with addition/subtraction items, and asked to solve them using any strategy that they wanted, including the use of paper and pencil supplied by the assessor. 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 two double-digit numbers with a sum less than 100 requiring the bridging of a decade. 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 double-digit number from a double-digit number involving the

bridging of a decade. Each subtask consisted of five items arranged in order of increasing difficulty. Pupils were allowed to use paper and pencil to help solve these problems. In the event that pupils did not answer a single item correctly on the level 1 subtasks, they were not given the opportunity to attempt the level 2 items. One score was generated for this subtask: the percentage of correct responses for the task.

- **Word problems** assessed pupils' ability to interpret a situation (presented to them in words), make a plan, and solve the problem. Since the focus was on assessing the pupils' ability to interpret a situation, make a plan, and solve a problem, the numerical values involved in the problem were deliberately small to allow the targeted skills to be assessed without confounding problems with calculation skills that might otherwise impede performance. The situations used were designed to evoke different mathematical situations and operations. For this subtask, pupils were asked to solve the problems using any strategy that they wanted, including the use of paper and pencil and/or counters supplied by the assessor. This subtask consisted of six items, and no time limit was set for the solution of the problems although pupils 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 task.

The EGMA subtasks administered in the state were well aligned with the expectations of the Nigerian mathematics curriculum for P2 and P3. For each of the items in each of the subtasks a parallel can be found in the curriculum and the Nigerian mathematics textbooks.

2.4.3 Instrument administration and scoring

Before administering either the EGRA or EGMA test, assessors explain the test to the child (in Hausa) and ask for their consent. (If a pupil declines to participate, an alternate is selected.) Instructions to the child are read in Hausa for both the EGRA (including EGRA in English) and EGMA, to ensure that the child understands what to do. Additionally, the child is provided with an opportunity to practice the reading tasks and to perform example mathematics problems.

The administration of EGRA and EGMA includes an "early stop" rule for most subtasks, which requires assessors to discontinue the administration of a subtask if a pupil is unable to provide a correct response after a pre-determined number of items. This rule (applied in all EGRA and EGMA administrations, not only in Nigeria) was established to avoid frustrating pupils who lack the skills to respond.

The scores for each EGRA and EGMA subtasks are calculated based on the number of correct responses given. On timed subtasks, the score is also based on the number of items attempted in the time allowed (i.e., 1 minute). If the child attempts all the items in less than a minute, the score is adjusted to reflect the number of correct responses the student would have given if he or she had used the entire minute. For example, if a child accurately reads through all 55 words in the oral reading fluency passage in 45 seconds, the score would be 73 correct words per minute.

Assessors from the COEs, SUBEB, MOE, Adult and Non-Formal Education Agency (ANFEA), and elsewhere were trained during a rigorous six-day workshop prior to data collection. Participants' performance was evaluated throughout the workshop, including through the administration of three inter-rater reliability (IRR¹³) performance tests to assess their accuracy and reliability in scoring subtask items. The highest-performing assessors and supervisors were selected to participate in the data collection based on their accuracy to administer and score the test, as well as their overall performance during school visits. A total of 32 assessors and eight supervisors participated in the data collection in the state.

2.4.4 Pupil, teacher, and head teacher questionnaires

During the EGRA and EGMA school visits, assessors also administered questionnaires to pupils, head teachers, and P2, P3, Stage 1, and Stage 2 teachers who teach Hausa, English, and/or mathematics. The questionnaires were designed to collect demographic and contextual information on schools, school personnel, and learners. This information allows us to have a better idea of the characteristics of the population sampled, to conduct analysis regarding the relationship between contextual factors and learning outcomes, and to identify aspects of the learning environment that need to be improved.

Questionnaires used during previous EGRA and EGMA administrations in Nigeria were updated for the 2013 data collection in consultation with representatives from the SUBEB, the COEs, and the Ministry of Education in Bauchi and Sokoto states. (The questionnaires can be found in *Annexes 4, 5, and 6*.) They were pilot-tested during the piloting of the updated EGRA instruments.

During data collection, the questionnaires were administered orally by data collectors on the day of the EGRA/EGMA visit.

3. Methodology

3.1 Sampling framework

The population in the Bauchi EGRA and EGMA study includes all P2 and P3 pupils and all Stage 1 and Stage 2 pupils attending a public primary or Islamiyya school (in the case of government schools) or an IQTE school during the 2012–2013 Nigerian academic year.

To obtain a random sample of pupils in each level, a two-stage sample was implemented by selecting schools and then pupils. Schools were stratified by state (since the assessment was conducted in both Bauchi and Sokoto) and school type

¹³ Inter-rater reliability (IRR) is a way to evaluate test administrators' consistency in scoring and recording responses. IRR scores are determined by having assessors score the same assessment simultaneously. In the case of EGRA/EGMA, IRR tests are administered several times during assessor and supervisor training. The IRR of a particular group of assessors is determined by determining the level of agreement with the group (mode) on test item scores. A group IRR score of 0.90 or above is considered to indicate a good level of internal consistency in test administrators' scoring. The IRR scores obtained in Bauchi for EGRA Hausa, EGRA English, and EGMA tests ranged from .90 to .97, indicating the tests can be scored accurately and reliably.

(government and IQTE). From each state, 40 schools were randomly sampled using the 2011/2012 list of schools provided by the Education Management Information System (EMIS) units. For selection of the schools, schools without any pupils enrolled in the targeted grades (as listed in the EMIS list) were first excluded. The remaining schools were then sorted by LGEA. The schools were selected proportional to the combined P2 and P3 enrollment for the government schools and Stage 1 and Stage 2 enrollment for the IQTE schools, as reported on the EMIS lists. For each selected school, at least two replacement schools were selected, to be used if the originally sampled school was not available to participate or was not eligible.

Once the selected schools (or replacement schools) were deemed eligible and available to participate, a team of assessors traveled to the schools to sample pupils and conduct the assessment. All pupils present on the day of the assessment were stratified by grade and gender. Ideally, 12 pupils (six boys and six girls) were chosen from each grade, P2 and P3 or Stage 1 and Stage 2, for a total of 24 pupils per school. The pupils were selected at random by trained assessors to ensure that all pupils had an equal probability of being selected to participate in the survey. If a class had six or fewer pupils present, then all pupils in the class were automatically selected.

In addition to sampling pupils for EGRA and EGMA, data collectors interviewed the head teacher (or assistant head teacher if the head teacher was not available) to gather information about their qualifications and other school demographic information. A school information sheet was also completed for each school to gather enrollment, absenteeism data, as well as additional information about the school environment. Finally, one teacher who teaches Hausa, English, and mathematics in the levels tested (P2, P3, Stage 1, and Stage 2) was randomly selected per grade and per school and administered a questionnaire about his or her qualifications, teaching practices, and other characteristics. Teachers had an opportunity to be interviewed only if they were present on the day of testing and if they were currently teaching in the target grades and subjects (in some cases, the same teachers taught multiple subjects and grades).

3.2 Instrument reliability and validity

To measure the reliability of the EGRA and EGMA in assessing reading skills across different subtasks, Cronbach's alpha was calculated on the subtasks each instrument (Hausa, English, and mathematics).¹⁴ Cronbach's alpha identifies the contribution of each subtask to the overall consistency, or reliability, of the instrument. In other words, it tells us how well the different subtests assess the same skill, in this case reading or mathematics. Results of the analysis indicate the subtasks are consistent overall: For Bauchi, the Cronbach's alpha (α) for EGRA Hausa was 0.83, for the EGRA in English it was 0.85, and for EGMA it was 0.93. An alpha greater than > 0.7 is considered good.

¹⁴ Listening comprehension was not included in the measure because it is not specifically a test of reading skills. The subtask is included in EGRA, however, because it helps inform the reading results.

3.3 Weighting

For the statistical analysis of the results, the data collected from the sample were weighted so that the results would be representative of the population of schools and pupils. Sample weights for schools were calculated as the inverse of the probability of selection.

Because schools were sampled based on the combined enrollment of P2 and P3 pupils in government schools, and of Stage 1 and Stage 2 pupils in IQTE schools, according to the EMIS data, school weights were calculated as the total number of P2, P3, Stage 1, and Stage 2 pupils in the State divided by the P2 and P3 pupil enrollment of the selected school. Demographic data on schools, head teachers, and teachers were weighted based on the number of schools in the state.¹⁵

Because pupils were stratified by grade and gender, the weight of each selected pupil (given that the school was selected) was calculated based on the total number of pupils in the strata divided by the sampled number of pupils in the strata. For instance, the weight of P2 girls in each school was calculated as the total number of P2 girls present in the school on the day of assessment divided by the sampled number of P2 girls in that school. These weights were then multiplied by the school weight to obtain the pupil's sample weight.

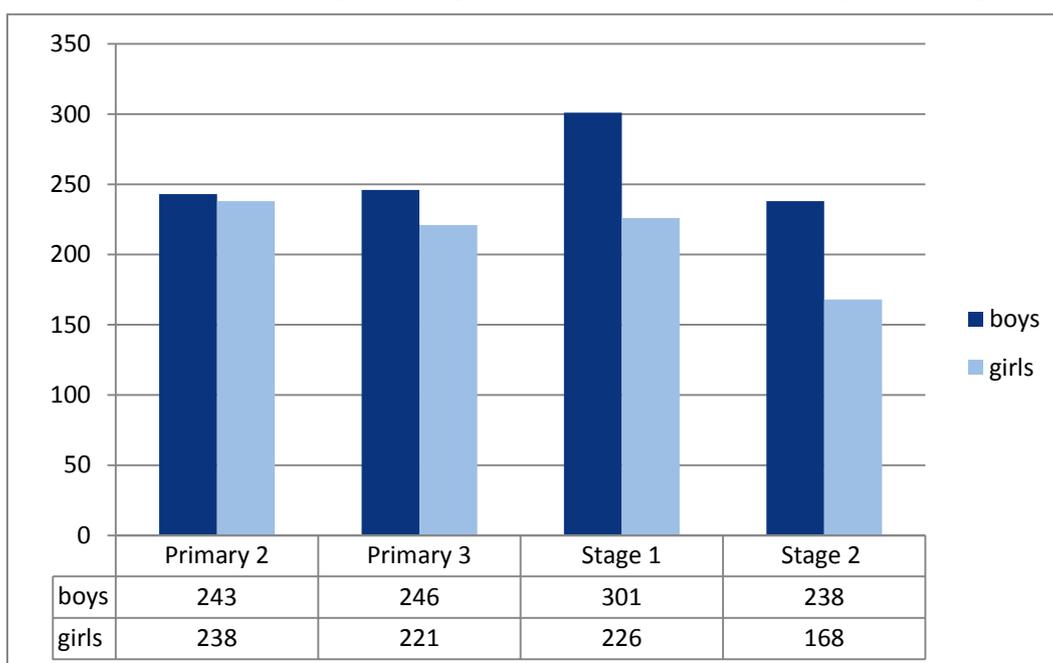
To allow the reader to more easily determine the size of the subpopulation on which the results are based, the number of observations reported for descriptive statistics and each EGRA and EGMA subtask is the total number of pupils sampled, rather than the weighted total.

4. Descriptive statistics

This report is based on data gathered in 40 government schools and 40 IQTE schools in 19 LGEAs in the state. A total of 1,881 pupils (948 in government schools and 933 in IQTE schools) in Bauchi state were administered the EGRA and EGMA assessments. As noted in *Figure 1* below, more boys than girls participated in the assessments, particularly in IQTE schools, indicating that more boys than girls were found to be in classrooms on the day of the test (since an equal number of boys and girls, six per grade, was supposed to be selected whenever possible). In government schools, girls composed approximately almost 50% of assessment participants, while in IQTE schools girls made up approximately 40% of the sample. (As indicated in the graph below, the percentage of girls decreases from P2 to P3 and from Stage 1 to Stage 2). Because the results are weighted, however, they are representative of the total population of boys and girls enrolled in schools.

¹⁵ While the teacher sample is not necessarily a perfectly representative sample of the entire teaching staff in the school because of limitations in the number of teachers that were present and could be interviewed at each school, by applying the school weights to the teacher data collected, we have a good indication as to teacher-related characteristics for the target grades and school types in the state.

Figure 1. Number of boys and girls sampled, by school type and grade



4.1 School characteristics

The majority of schools (92% of government schools and 100% of IQTE schools) were located in rural areas. *Figure 2* below provides an overview of the school characteristics of the overall population from which the sample was drawn. Few schools (19% of government schools and 35% of IQTE schools) reported that pupils have access to drinking water or electricity (3% of government schools and 11% of IQTE schools), though a higher percentage of IQTE schools reported having these basic resources. Only 29% of government schools and 16% of IQTE schools reported that the school had functioning toilets for boys and girls. Very few schools of both types reported having a library (2%).

Figure 2. School characteristics

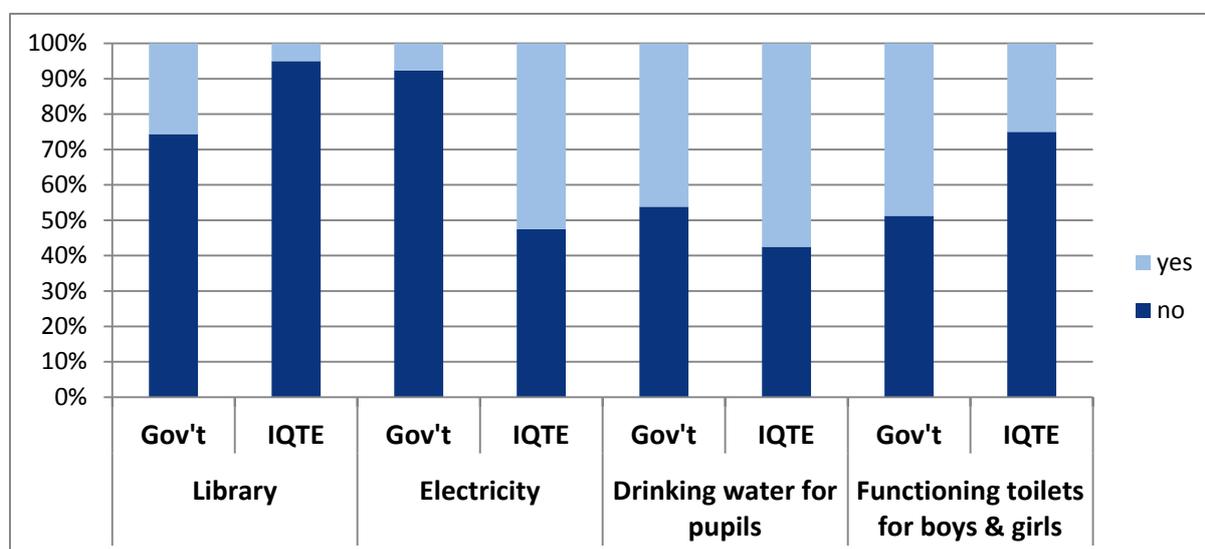


Table 1 presents data regarding school enrollment and attendance. The mean enrollment in Stage 1 and Stage 2 IQTE schools is higher, on average, than the enrollment in P2 and P3, though it is important to note that Stage 1 and Stage 2 are generally the only levels at the IQTE schools and therefore represent the entire population of the school. (As noted previously, Stage 1 lasts for the equivalent of 1 academic year, while Stage 2 lasts for the equivalent of 2 academic years. However, the stages are supposed to include 3 years of basic education curriculum each.) Pupil-teacher ratios in the sample schools were generally large, and similar across grades and subjects. Of particular importance is the percentage of pupils who were absent on the day of the EGRA/EGMA assessment. (These figures were reported by head teachers, who provided the number of pupils registered for the grade and the number absent on the day of the visit. Approximately one-third of government school pupils in P2 and P3 were absent, with boys' rates of absenteeism slightly higher than that of girls' in P2. The rate of absenteeism in IQTE pupils was lower than that in government schools, with approximately one-quarter of pupils absent. In IQTE schools, girls had a higher rate of absenteeism than that of boys (the opposite was true in Sokoto).

Table 1. School enrollment, pupil absenteeism, and pupil-teacher ratio

Statistic	Primary 2	Primary 3	Stage 1	Stage 2
Mean enrollment	55	52	60	57
Boys	31	31	35	31
Girls	24	21	26	26
Maximum enrollment	406	403	330	178
% of pupils absent on day of assessment	35%	33%	26%	23%
Boys	37%	33%	26%	21%
Girls	30%	33%	29%	30%
Hausa pupil-teacher ratio	49	46	53	52
Mathematics pupil-teacher ratio	51	45	58	59
English pupil-teacher ratio	n/a	48	n/a	59

4.2. Pupil characteristics

The graphs and tables in this section summarize pupil demographic information collected through a questionnaire administered to pupils following the EGRA/EGMA tests. All information was self-reported. These demographic characteristics will be further explored in **Section 5.4** regarding contextual factors that influence learning outcomes.

4.2.1 Demographic characteristics

Pupils' average age by school type and grade is noted in **Table 2**. Children are officially supposed to start P1 at age 6. Since the EGRA/EGMA exercise was conducted at the end of the school year, in May, P2 pupils should have been 8 years old and P3 children 9 years old. The average age, however, was a year older than expected: 9 years old for P2 pupils and 10 years old for P3. In contrast, in Sokoto state, the mean age was 8.1 years in P2 and 9.8 years in P3, indicating that children

start a year earlier in Sokoto, on average, than in Bauchi state, but take 2 years to progress from one grade to the next.

Analysis of this data indicated that 57% of P2 and 69% of P3 children were overage. (Overage was defined as being older than 9 years old in P2 and older than 10 years old in P3.) A higher percentage of girls was overage in P2 (61% compared to 53%), while the rates were the same in P3. (In Sokoto, more boys than girls were found to be overage.)

Table 2. Pupil age, by school type and grade

	Pupil age		
	Mean	Range	% overage
Primary 2	9.0	5-14	57%
Primary 3	10.1	6-17	69%
Stage 1	10.4	5-17	-
Stage 2	12.3	6-20	-

Overage was defined as being older than 9 years old in P2 and older than 10 years old in P3

The average age of the IQTE pupils was 10 years in Stage 1 and 12 years in Stage 2. The two-year difference in age between Stage 1 and Stage 2 pupils is somewhat expected, since Stage 2 lasts for 2 years and some pupils may have been in their second year. (Compared to Sokoto, pupils in both stages are 1 year older in Bauchi.) While the IQTE curriculum indicates that children between the ages of 3 and 18 can attend the schools, a specific age for each stage is not designated, so the percentage of overage pupils cannot be calculated.

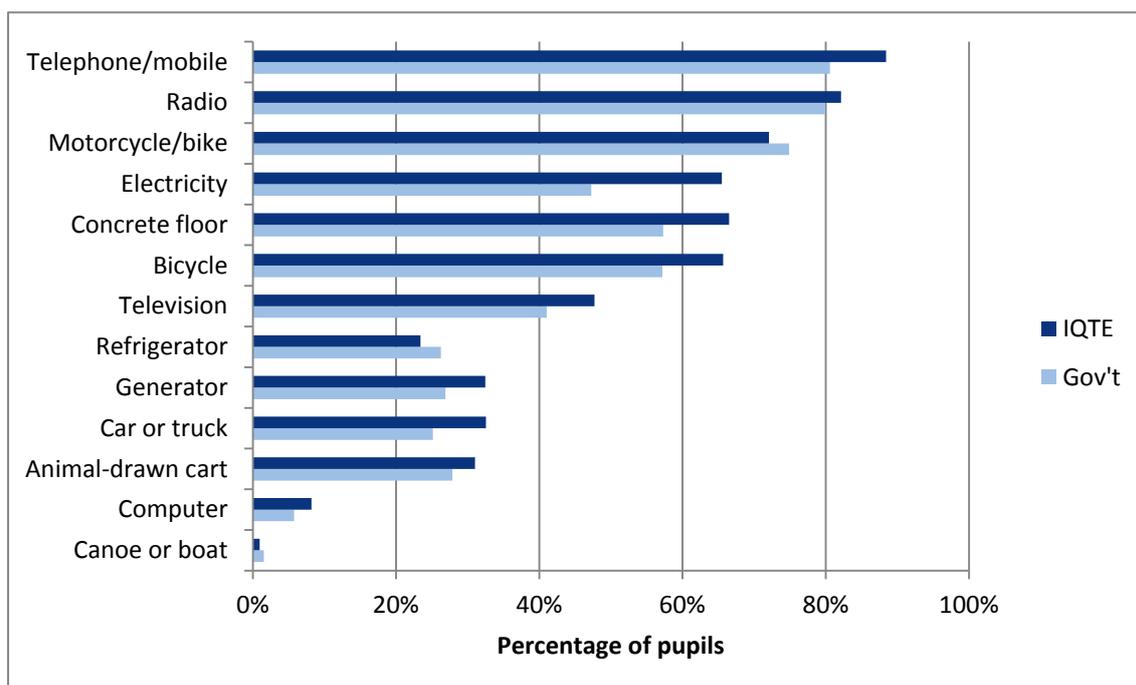
When pupils were asked whether they attend another school in addition to the one in which they were present on the day of the assessment, a large proportion of pupils reported they did. Approximately 79% of government school P2 and P3 pupils said they attended an IQTE or private Qur'anic school in addition to the government school, while 39% of IQTE pupils reported also attending a government school. While some of the overlap may be due to confusion regarding terminology for the various forms of Islamic education, the figures indicate that some pupils may be attending two schools simultaneously.

Figure 3 presents an overview of household assets self-reported by pupils. In general, a similar percentage of pupils from IQTE and government schools reported having the various assets.¹⁶ Other household characteristics were similar between pupils in the two school types: the most common source of drinking water was an open well for 41% of P2 and P3 pupils' households and 32% of IQTE pupils' households, with a tap outside the house and boreholes the next most common sources. Only 10% of pupils reported having a tap inside the home, while 3% reported that their families' most

¹⁶ A specific index for calculating socioeconomic status (SES) was not used because these indices require information that can most reliably be reported only by an adult, and/or that need to be verified by an in-home assessment. For the purposes of the EGRA/EGMA study, information pertaining to pupils' household assets was collected to create a composite SES variable to control for SES when conducting various analyses. Data gathered from pupils was drawn from questions used in the Grameen Bank's Progress out of Poverty Index for Nigeria and the NEI Household Questionnaire (2010), which is drawn from the Nigeria Demographic and Health Survey (2008).

frequent water source is a stream, river, or pond. The majority of pupils’—95% of government school pupils and 98% of IQTE pupils—reported that their families most frequently use wood or coal for cooking.

Figure 3: Pupil household assets



The majority of pupils—81% in government schools and 88% in IQTE schools—reported Hausa as the language they most frequently speak at home. A sizeable minority of pupils reporting speaking Fulfulde most frequently at home: 13% of P2 and P3 government school pupils and 9% of pupils in IQTE schools. An additional 6% of P2 and P3 and 3% of IQTE pupils reporting speaking another language. This data indicate that almost 20% of early grade learners speak a language besides Hausa.

4.2.2 School readiness

Pupils were asked several questions related to how well they are prepared to learn. Only about one-third of pupils reported having attended nursery school before P1: 19% of government school pupils and 23% of IQTE pupils. (Given that the definition of nursery school may vary, even children who said they attended nursery school may not necessarily have attended a formal program supported by the government.) A large percentage of pupils reported eating a meal before coming to school (81% of government school and 74% of IQTE pupils).

A large percentage of pupils who took the EGRA/EGMA reported being absent during the previous week—31% of P2 and P3 pupils and 24% of IQTE pupils—indicating that many children are missing out on crucial learning time. These self-reported absenteeism figures correspond to the high rate of pupil absenteeism rate reported by the head teachers on the day of the testing and indicate a serious need to improve children’s attendance: Approximately one-third of P2 and P3 and one-fourth of Stage 1 and Stage 2 pupils.

4.2.3 Reading and mathematics resources and practices

Data gathered also included information regarding pupils' access to learning resources at both school and at home, as well as the learning practices they engage in. Only about one-third of pupils in both school types reported having a Hausa reading book at school. More P2 and P3 pupils reported having access to an English reading book (39%) than IQTE pupils (22%). Across both school types, children were more likely to have a mathematics textbook than either a Hausa or English book (45% of P2 and P3 pupils and 37% of IQTE pupils). More than half of pupils said they had a mathematics exercise book (61% of P2 and P3 government school pupils and 55% of IQTE pupils). Approximately one-third of pupils in both school types reported having books, newspapers, or other print at home besides their schoolbooks.

Approximately half of pupils reported that they have time to read books in their classroom or school library every day (57% in government schools and 45% in IQTE schools), while 63% of government school pupils and 50% of IQTE pupils report bringing home books from school (see *Figure 4*). One noteworthy finding from the pupil interviews is that a large percentage of children reported they never read out loud to someone at home: 40% of P2 and P3 government school pupils and 23% of IQTE pupils. Only a fraction—7% of P2 and P3 and 19% of IQTE pupils—reported reading out loud to someone every day (see *Figure 4*). While all children should engage in reading out loud more frequently, of note is that a higher percentage of children in IQTE schools compared to P2 and P3 children at government schools reported reading out loud at home sometimes or every day. About half of pupils in both school types surveyed reported that someone at home reads to them and/or helps them with their homework.

Figure 4: Frequency at which children read aloud to someone at home

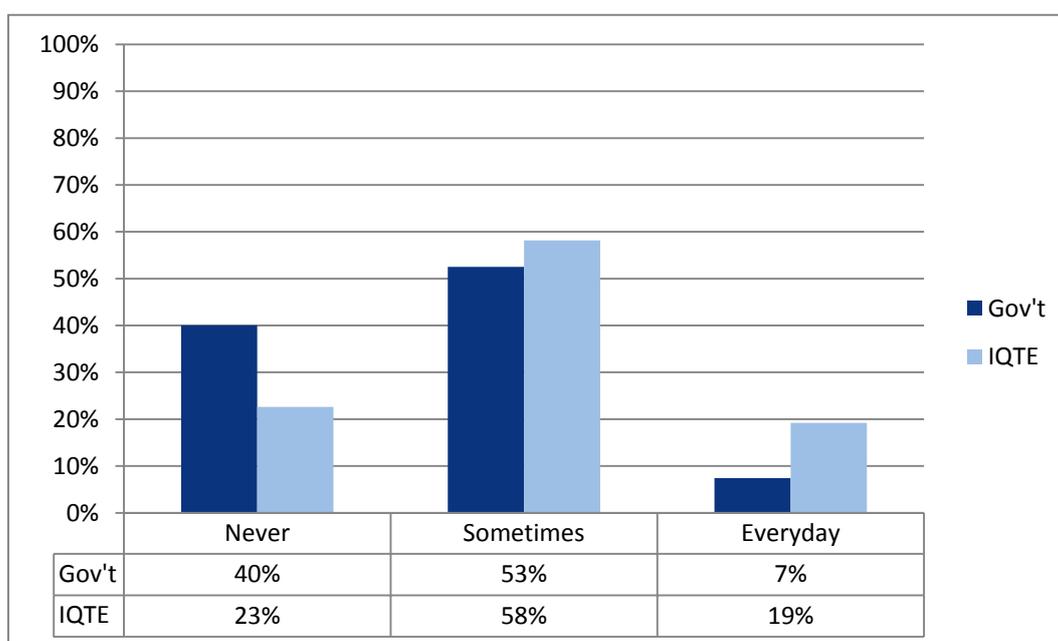


Table 3. Pupil demographic characteristics

Characteristic	Gov't schools	Sample obs. (n)	IQTE schools	Sample obs. (n)
Teacher present at school today				
Hausa	53%	552	53%	464
English	62%	280	60%	250
Mathematics	65%	623	52%	505
Language spoken most frequently at home				
Hausa	81%	703	88%	817
Fulfulde	13%	165	9%	74
Other	6%	62	3%	36
Attended nursery school before P1	19%	152	23%	172
Ate a meal before coming to school	81%	761	74%	724
Absent from school any day last week	31%	317	24%	198
Has a Hausa reading book at school	31%	272	32%	307
Has an English reading book at school	39%	261	22%	253
Has a mathematics textbook	45%	349	37%	331
Has a mathematics exercise book	61%	501.0	55%	467
Has books, newspapers or other print besides school books at home	35%	291	34%	348
Has time to read books in classroom or school library every day	57%	452	45%	482
Brings home books from school (classroom or library)	63%	542	50%	493
Someone at home reads to the pupil	49%	422	48%	446
Someone at home helps pupil with homework	49%	421	46%	442
Boards at school	0.09%	1	9%	208
Attends IQTE or private Qur'anic school in addition to gov't school	79%	695	n/a	n/a
Attends gov't school in addition to IQTE school	n/a	n/a	39%	363

4.3 Head teacher characteristics

On the day of the EGRA/EGMA school visit, interviews were conducted with 33 head teachers and three assistant head teachers in government schools and 35 head teachers (or proprietors) and three assistant head teachers at IQTE schools. As noted in **Table 4**

below, the vast majority of head teachers are male. The average number of years the head teachers have spent at their schools differs significantly by school type: government school head teachers have spent approximately 7 years at their school, while IQTE heads have been at their schools approximately twice as long, or an average of 17 years. Almost all government school head teachers (98%) and the majority of IQTE proprietors (82%) reported that they also teach a class in addition to carrying out their management and administrative responsibilities.

Head teachers' level of qualifications ranged significantly (see **Figure 5**). A total of 70% of government school head teachers reported holding a Nigeria Certificate in Education (NCE), while 25% reported only a Grade II certificate. In IQTE schools, 21% reported holding an NCE, and 3% said they had a B.Ed, while 3% reported having a master's degree in education. A total of 11% of IQTE head teachers reported having only a Grade II certification, and 32% reported they did not have any qualifications, with 30% reporting having some other qualification.

Head teachers' level of training in specific subjects is low. Only about one-quarter to one-third of head teachers (22% of government school heads and 33% of IQTE proprietors) reported having been trained to teach Hausa. In contrast, 86% of government school teachers said they had been trained to teach English, while only 33% of IQTE head teachers had. A similar discrepancy exists for mathematics, with 62% of government school head teachers reporting some training in mathematics, while half as many (32%) of IQTE head teachers reported receiving training in teaching mathematics.

Figure 5: Head teacher qualifications, by school type

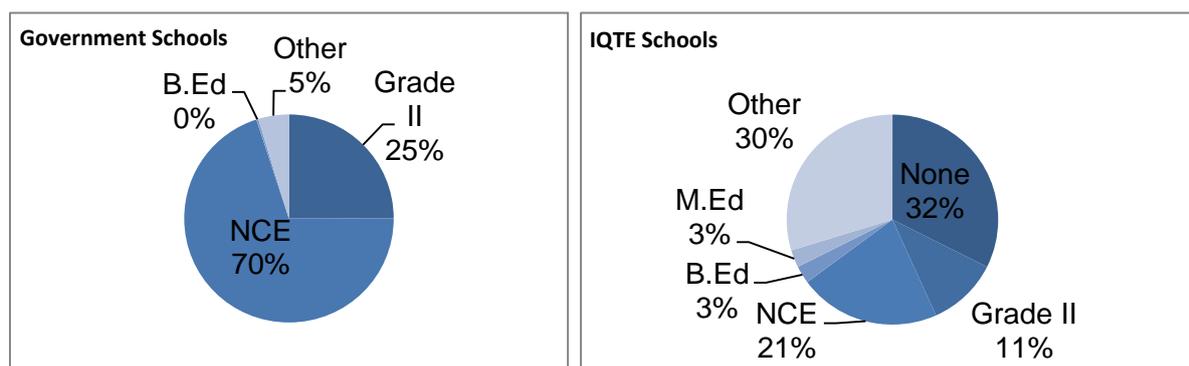


Table 4. Head teacher characteristics

Characteristic	Gov't	Sample obs. (n)	IQTE	Sample obs. (n)
Female	11%	4	1%	1
Number of years as head teacher at this school				
Mean	6.8	36	17.3	36
Range	<1–14	1	<1–29	0
Teaches a class at the school	98%	34	82%	33
Has been trained to teach Hausa	22%	8	33%	11
Has been trained to teach English	86%	28	33%	11
Has been trained to teach mathematics	62%	23	28%	8
Reports school has sufficient materials for teaching early grade:				
Hausa	1%	1	2%	2
English	51%	20	2%	2
Mathematics	43%	17	2%	2

4.4 Teacher characteristics

Interviews were conducted with Hausa, English, and mathematics teachers in each grade tested (P2, P3, Stage 1, and Stage 2) to provide an overview of their background, classroom experiences, and school conditions. As explained in the section on sampling, teachers were selected only if they were teaching those subjects and grades, and if they were present at school on the day of testing. Of the teachers present at the school, one teacher per subject and grade was selected; in some cases, the same teachers taught multiple subjects and grades.

Table 5 below provides an overview of the 125 teachers in the state who were interviewed, 86 in government schools, and 67 in IQTE schools. While the teachers compose only a random sample of P2, P3, Stage 1, and Stage 2 teachers present on the day of the assessment, and therefore are *not* necessarily representative of the entire teaching staff in the state, the data they provided shed some light on the overall characteristics of the teachers at the school visited.

Table 5. Number of teachers interviewed, by school type, subject, and grade

	Hausa Teachers	English Teachers	Math Teachers	Total number of unique teachers interviewed	Total number of teachers teaching Primary 2 or Stage 1	Total number of teachers teaching Primary 3 or Stage 2
Government	64	33	65	86	63	99
IQTE	63	31	57	67	57	94
Total	127	64	122	153	120	193

4.4.1 Demographic characteristics

In Bauchi, 29% of the P2 and P3 government school teachers and 0% of the IQTE teachers were female (compared to only 10% of P2 and P3 teachers and 12% of IQTE teachers in Sokoto). The average age of the P2 and P3 government school teachers and the IQTE teachers is similar: 35 years old in government schools and 33 years old in IQTE schools. The majority of teachers reported that Hausa is the language they speak and understand best (87% in government schools and 90% in IQTE schools). A minority—7% in government schools and 4% in IQTE schools—reported that Fulfulde was the language they speak and understand best, a lower percentage than that of pupils who reported they speak Fulfulde as their home language (13% of P2 and P3 pupils and 9% of IQTE pupils. (4% of teachers reported that English is the language they speak and understand best.) A high percentage of teachers in both school types (83%) also reported that they read and write Hausa well. (2% of the government school teachers interviewed and 13% of the IQTE teachers interviewed said they read and write Fulfulde well.) For English, however, only 60% of P2 and P3 teachers reported they read and write the subject well, while a greater percentage of the IQTE pupils interviewed, 70%, reported they did so.

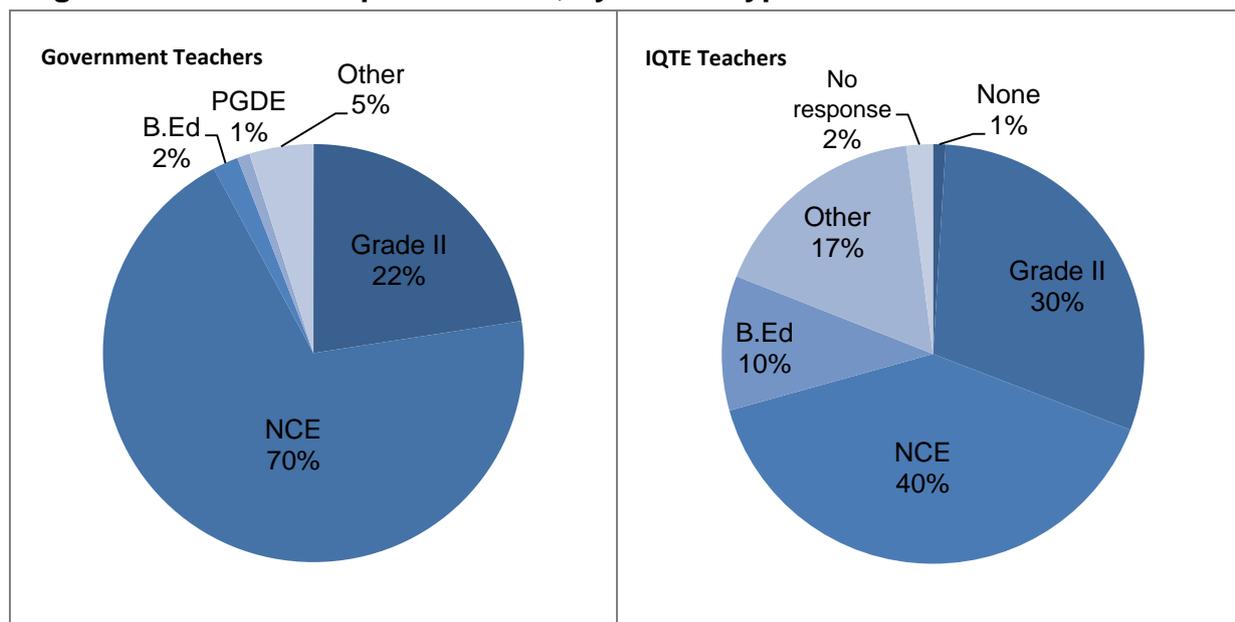
4.4.2 Qualifications, training, and experience

The government and IQTE school teachers reported similar levels of experience, with an average of about 10 years of experience. However, their level of qualifications differed: 70% of the P2 and P3 government teachers reported holding a Nigeria Certificate in Education (NCE), while only 40% of IQTE teachers surveyed did (see *Figure 6*).

Of the government school teachers interviewed, 35% reported receiving specific pre-service instruction for teaching Hausa, 56% reported receiving pre-service instruction in teaching English, and 47% reported receiving some pre-service instruction in teaching mathematics. In IQTE schools, 47% reported receiving specific pre-service instruction in teaching Hausa, 61% reported receiving pre-service instruction in teaching English, and 51% reported receiving some pre-service instruction in teaching mathematics. Only 10% in government schools and 16% of IQTE teachers interviewed reported a pre-service specialization in primary education studies (PES), and many teachers who specialized in other subjects, such as Arabic or arts, are teaching Hausa, English, or mathematics.

The amount of in-service training received varied by subject. Only 21% of the P2 and P3 government school teachers reported receiving training in Hausa, while 33% of IQTE teachers did. A higher percentage of teachers reported receiving in-service training in English: 48% of government school teachers and 48% of IQTE teachers. Slightly more than one-third of teachers reported receiving in-service training in mathematics.

Figure 6: Teacher qualifications, by school type



4.4.3 Teacher absenteeism

A large percentage of teachers reported being absent from school any day the previous week: 31% of government school teachers and 22% of IQTE teachers. Among the teachers who reported they had been absent the previous week, the most common reason cited by the P2 and P3 government school teachers was illness, while for IQTE teachers the most common reason was insufficient, irregular, or no salary payment (illness was the second most common reason cited). While these figures are based on the teachers who were present on the day of the assessment, data gathered from pupils further indicate a high rate of teacher absenteeism. Pupils selected for participation on EGRA/ EGMA reported that approximately half of their teachers—their Hausa, English, and/or mathematics teacher—were absent on the day of the assessment (see **Table 6** for percentages by school type and for each subject; note that one teacher may teach several subjects). The effect of teacher absenteeism on learning outcomes will be further explored in **Section 5.4**.

4.4.4 Instructional resources

Teachers reported a serious lack of teaching and learning materials in their classrooms: Only 12% of the government school teachers who teach Hausa and 5% of the IQTE Hausa teachers interviewed said they had adequate materials for teaching the subject. A much larger percentage of teachers in government schools reported having adequate English language resources in the classroom (43%) though that figure was much lower for IQTE teachers interviewed (5%). The results were similar for mathematics, a subject for which 46% of the government school mathematics teachers said they had enough resources, but only 1% of IQTE teachers said they had sufficient teaching and learning materials.

Table 6. Teacher characteristics

Characteristic	Gov't	Sample obs. (n)	IQTE	Sample obs. (n)
Gender				
Male	71%	57	100%	67
Female	29%	29	0%	0
Age				
Range	22-57	84	19-59	66
Mean	36.3	84	33.5	66
Years of teaching experience				
Range	1-26	86	0-34	67
Mean	9.5	86	9.8	67
Pre-service specialization				
Hausa	22%	17	11%	12
English	32%	22	23%	14
Mathematics	16%	11	16%	11
Science	7%	5	2%	3
Arabic	9%	7	12%	12
Arts	6%	9	2%	2
Primary Education Studies	10%	10	16%	7
Teacher received <i>pre-service</i> training in early grade instruction				
Hausa	35%	29	47%	30
English	56%	48	61%	34
Mathematics	47%	42	51%	29
Teacher received <i>in-service</i> training in early grade instruction				
Hausa	21%	18	33%	21
English	48%	39	58%	33
Mathematics	37%	31	38%	25
Language the teacher speaks and understands best				
Hausa	87%	76	90%	61
Fulfulde	7%	5	4%	3
English	4%	3	4%	1
Languages the teacher reads and writes the language well (<i>multiple responses allowed</i>)				
Hausa	83%	77	83%	58
Fulfulde	2%	3	13%	7
English	60%	64	70%	40
Arabic	15%	15	23%	19
Teacher reports adequate classroom materials				
Hausa	12%	6	5%	5
English	43%	22	5%	4
Mathematics	46%	23	1%	1

Characteristic	Gov't	Sample obs. (n)	IQTE	Sample obs. (n)
Teacher was absent from school any day last week (<i>Of the teachers who said they were absent, reasons listed below</i>)	31%	28	22%	16
Insufficient, irregular, or no salary payment	4%	3	9%	4
Illness	11%	10	3%	3
Family responsibility	3%	5	4%	2
Lack of motivation	4%	2	7%	2
Work other job	0%	0	1%	2

5. Results

This section includes a summary of the results for EGRA in Hausa, EGRA in English, and EGMA. The results of each assessment are first summarized, followed by a detailed description by subtask.

The data presented include mean scores for each subtask by school type, class level, and gender. As noted previously, results are representative of the weighted sample population. P-values are reported to indicate whether differences in the average scores between different groups (such as boys and girls) are statistically significant, or are not due to random chance. (A p-value is considered statistically significant if it is below 0.10. The closer a p-value is to zero, the greater the statistical significance.) Standard errors were calculated to illustrate the variation of scores around the mean (a low standard error indicates that most pupils obtained scores at or close to the mean, while a high standard error indicates greater variability of scores).

5.1 Hausa EGRA Results

Results summary

The overall results from the EGRA in Hausa indicate very low performance across all reading skills tested in both school types, with very few pupils able to read with meaningful comprehension.

As noted in **Figure 7**, the vast majority of pupils in both school types and grades were unable to provide a correct response for any of the items in a given subtask, resulting in a score of 0. Given the extremely large percentage of children scoring 0 in each subtask, it is not surprising that overall mean scores are also low (see **Table 7**). In general, the results show a relationship between the tasks, with average scores decreasing from one fluency task to another: if children struggle with letter sounds, they are unable to decode words, read fluently, and understand what they have read.

In government schools, few pupils have mastered the foundation skills of letter sounds and decoding. P3 pupils read only about three correct words per minute (CWPM) in Hausa at the end of the school year. (No significant differences were detected in the results between boys and girls in government schools.) Given their

very poor performance in the basic reading tasks of letter sounds and non-word decoding, it is not surprising that almost no children in P2 or P3 were able to read and comprehend a short Hausa narrative.

Pupils in IQTE Stage 1 and Stage 2, however, performed better overall than children in government schools. Stage 1 pupils, for example, had an ORF score of 9.7, compared to only 0.9 for P2 pupils (though Stage 1 only lasts 1 year, it is supposed to cover P1–P3 content). Despite higher ORF scores in IQTE schools, however, reading comprehension was still low. Significant gender differences were observed in both stages of IQTE and across subtasks, with Stage 2 boys achieving an average ORF score of three times that of girls (27.8 compared to 10.2 CWPM).

As previously noted, fluency is a measure of both speed and accuracy. In addition to pupils' low overall speed in attempting items, their accuracy in providing correct responses was also poor: P3 pupils were able to provide the correct sounds of only 10% of the letters they attempted, and Stage 2 pupils were able to correctly say the sounds of about 13% of the letters attempted. In IQTE schools, pupils' accuracy improved somewhat on the non-word decoding and oral reading fluency subtasks, but is still low, indicating that the pupils were able to accurately read only 20% of the ORF items attempted in Stage 1 and 30% of the items attempted in Stage 2.

Although the percentage of children who received a score of zero decreased from P2 to P3 and from Stage 1 to Stage 2, the improvement in average scores in terms of meaningful skill level is negligible in government schools. For example, in government schools, children's ability to decode non-words increases from 0.6 CWPM in P2 to 2.0 in P3—a gain of approximately one word after an additional year of school. Scores increased more significantly from Stage 1 to Stage 2, with Stage 2 pupils gaining five additional CWPM, though the percentage of children able to read is still quite small.

In both school types, children performed best on the listening comprehension subtask, with 29% of P2 pupils, 15% of P3 pupils, 8% of Stage 1 pupils, and 1% of Stage 2 pupils scoring zero (see shaded bars in *Figure 7*). The contrast between the percentages of children scoring zero in listening comprehension compared to the who scored zero in reading comprehension suggests that most children are able to understand the Hausa language, but lack the skills necessary to read print.

Figure 7: Percentage of children scoring 0, by school type, grade, and subtask

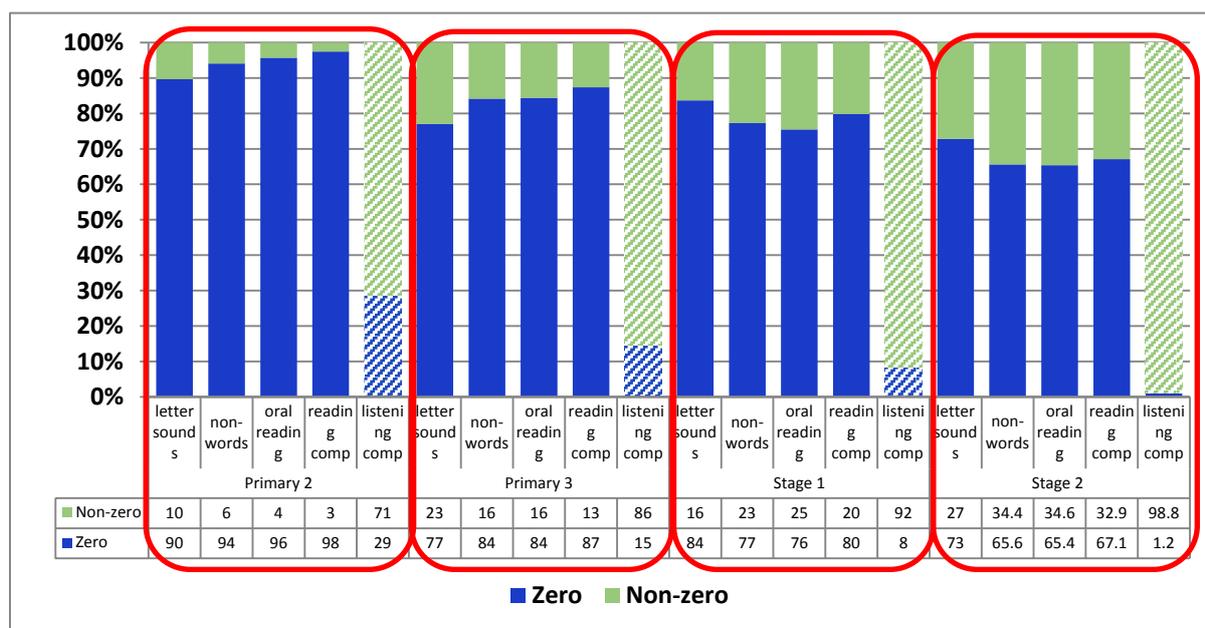


Table 7. EGRA Hausa performance: average (mean) score and % correct of items attempted, by level

Subtask	Primary 2		Primary 3		Stage 1		Stage 2	
	No. Correct/Minute	% Correct/ Attempted	No. Correct/ Minute	% Correct/ Attempted	No. Correct/ Minute	% Correct/ Attempted	No. Correct/ Minute	% Correct/ Attempted
Letter sound identification	0.9	3%	2.8	10%	2.3	6%	4.5	13%
Non-word decoding	0.6	3%	2.0	9%	5.5	16%	8.4	25%
Oral reading fluency	0.9	3%	3.4	12%	9.7	20%	14.7	31%

5.1.2 Letter sound knowledge – Hausa

Figure 8 and **Table 8** below illustrate the distribution of and average letter sound scores across government and IQTE schools. A high proportion of children in both school types and at all levels were unable to identify one letter sound correctly: 90% of P2, 77% of P3, 84% of Stage 1, and 73% of Stage 2 pupils scored zero on this subtask. As a result, the average score was only 0.9 in P2 whereas in P3 it was 2.8 correct letter sounds per minute. (The maximum number of letter sounds identified correctly in government schools was 100.3, and 138 in IQTE schools.) No significant differences in performance by gender were detected in government schools, though they were present in IQTE schools. The gender difference becomes most pronounced in Stage 2, where boys’ scores were more than twice those of girls (nearly 8 letter sounds per minute compared to 3), a difference that was statistically significant.

Figure 8: Distribution of Hausa letter sound scores, by school type and grade

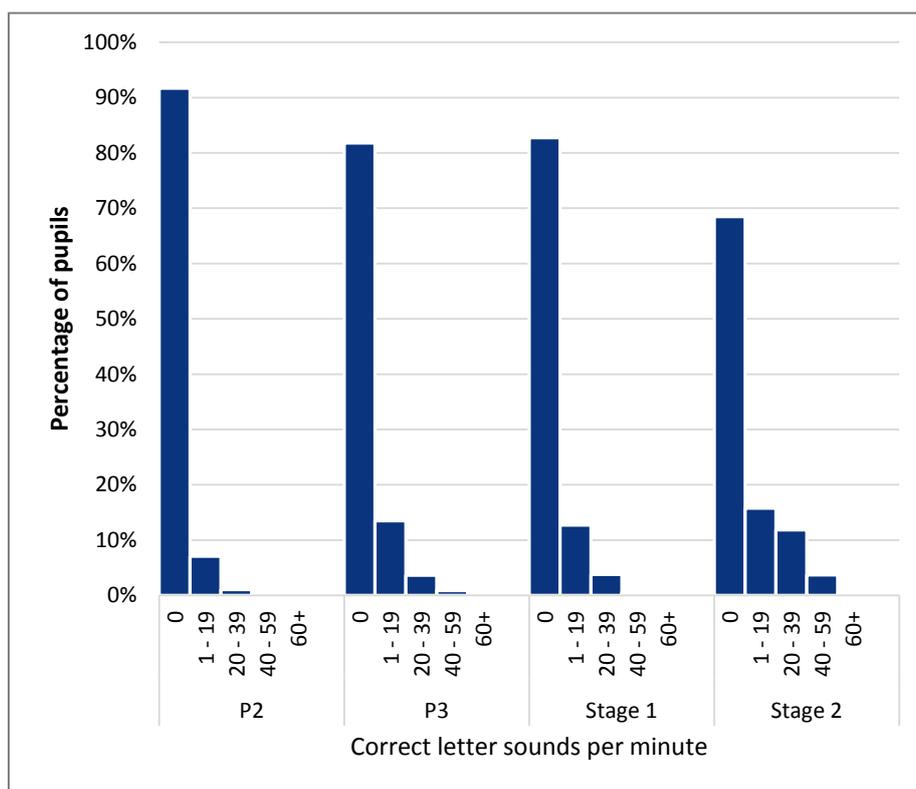


Table 8. Hausa mean correct letter sounds per minute (CLSPM), by school type and grade

	Mean CLSPM	Standard error	p-value	No. of obs.
Primary 2	0.9			480
Boys	1.1	0.44	0.189	243
Girls	0.6	0.24		237
Primary 3	2.8			467
Boys	1.9	0.44	0.076	246
Girls	4.0	1.16		221
Stage 1	2.3			527
Boys	3.5	0.77	0.077	301
Girls	1.8	0.6		226
Stage 2	4.5			406
Boys	7.9	1.15	0.008	238
Girls**	3.3	1.08		168

**significant at 99% confidence level ($p < .01$)

5.1.3 Non-word decoding – Hausa

The results of this EGRA subtest reveal that the majority of P2 pupils (94%) and P3 pupils (84%) cannot decode any words (see **Figure 9**). This means that the children are not able to read words they have not previously encountered. The low performance is not unexpected given pupils’ poor performance identifying letter sounds, a skill that is fundamental for decoding words.

Due to the high percentage of pupils scoring zero, the mean score for P2 was less than 1 CNONWPM while in P3 it was 2 CNONWPM. As indicated in **Table 9** below, there was no significant difference between boys’ and girls’ performance. For children who were able to decode some words, the average was approximately 8 CNONWPM in P2 and 12 in P3. (The maximum score obtained by a pupil in government schools was 63 CNONWPM, while in IQTE schools it was 82.)

Although pupils in IQTE schools performed better, on average, than pupils in government schools, most children are not able to read words they have not previously encountered. Stage 1 boys achieved an average score of only 8.4 CNONWPM, while girls had a score of 5.5. This increased to 8.4 for girls in Stage 2 and 14.7 for Stage 2 boys, a gender difference that is statistically significant. The average correct non-words per minute for children who were able to decode was similar in both levels, about 24.

Figure 9: Distribution of Hausa non-word reading scores, by school type and grade

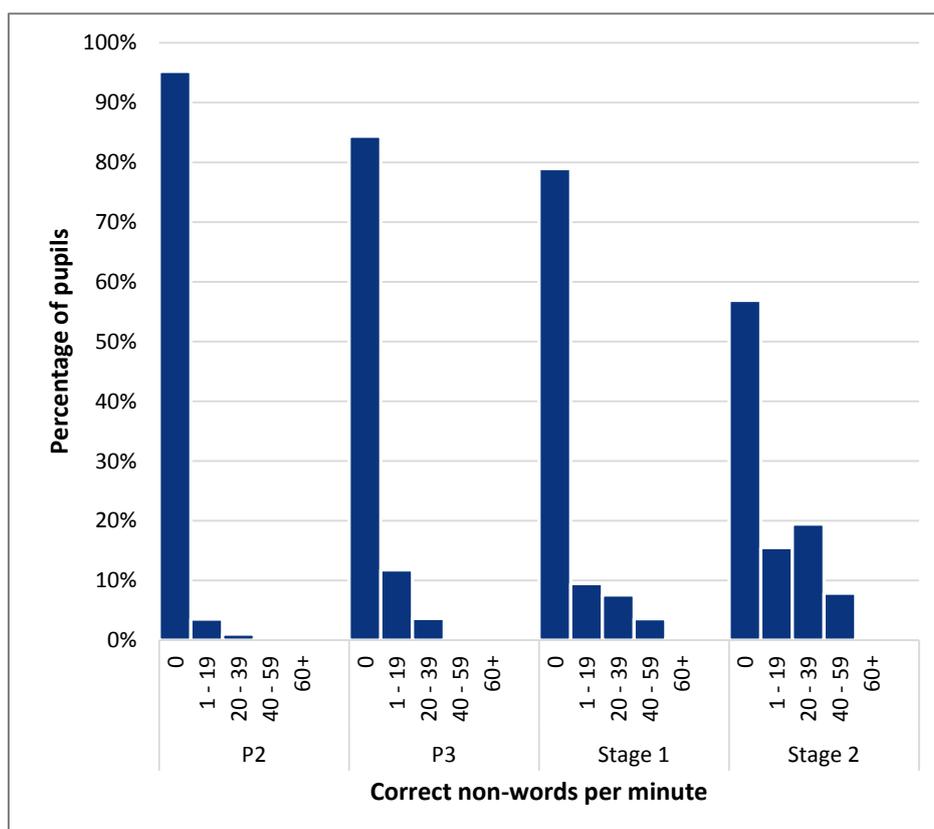


Table 9. Hausa mean correct non-words per minute, by school type and grade

	Mean CNONWPM	Standard error	p-value	No. of obs.
Primary 2	0.6			480
Boys	0.8	0.38	0.223	243
Girls	0.4	0.28		237
Primary 3	2.0			465
Boys	2.0	0.60	0.964	244
Girls	2.0	0.64		221
Stage 1	5.5			526
Boys	10.3	2.01	0.007	301
Girls**	3.6	1.45		225
Stage 2	8.4			406
Boys	14.6	2.51	0.017	238
Girls*	6.3	1.52		168

*significant at 95% confidence level (p<.05). **significant at 99% confidence level (p<.01)

5.1.4 Oral reading fluency – Hausa

As illustrated in **Figure 10** below, approximately 9 out of 10 P2 and P3 pupils in government schools in Bauchi cannot read a single word of connected text in Hausa, resulting in a mean ORF score of only 0.9 correct words per minute for P2 pupils and 3.4 for P3 pupils (see **Table 10**). The increase from one grade to the next is only about two-and-a-half more words per minute—after an entire additional year of school. (The maximum score was 81 CWPM in P3.) Excluding zero scores, government school pupils had an average score of 21 CWPM in P2 and 22 CWPM in P3. The highest scores obtained were 69 CWPM in P2 and 81 CWPM in P3.

IQTE pupils performed significantly better overall in ORF than pupils in the government schools. **Table 10 below** indicates that the average performance of the children in IQTE schools was 9.7 CWPM in Stage 1 and 14.7 in Stage 2. (The highest score obtained was 122.2 in Stage 2.) The results further indicate that boys performed significantly better than girls in both stages: Stage 1 boys' mean score was 18.1 CWPM compared to girls' overall average score of 6.5, while in Stage 2, boys' average score was 27.8 CWPM compared to girls' average score of 10.2. For the Stage 2 pupils who did not score 0 (approximately 35%), the average ORF score was 42.6. Still, although zero scores decreased by approximately 10 percentage points from Stage 1 to Stage 2, one out of three pupils in Stage 2 cannot read any words of a short story: 76% in Stage 1 and 65% in Stage 2 (see **Figure 4**.)

Figure 10: Distribution of Hausa oral reading fluency reading scores, by school type and grade

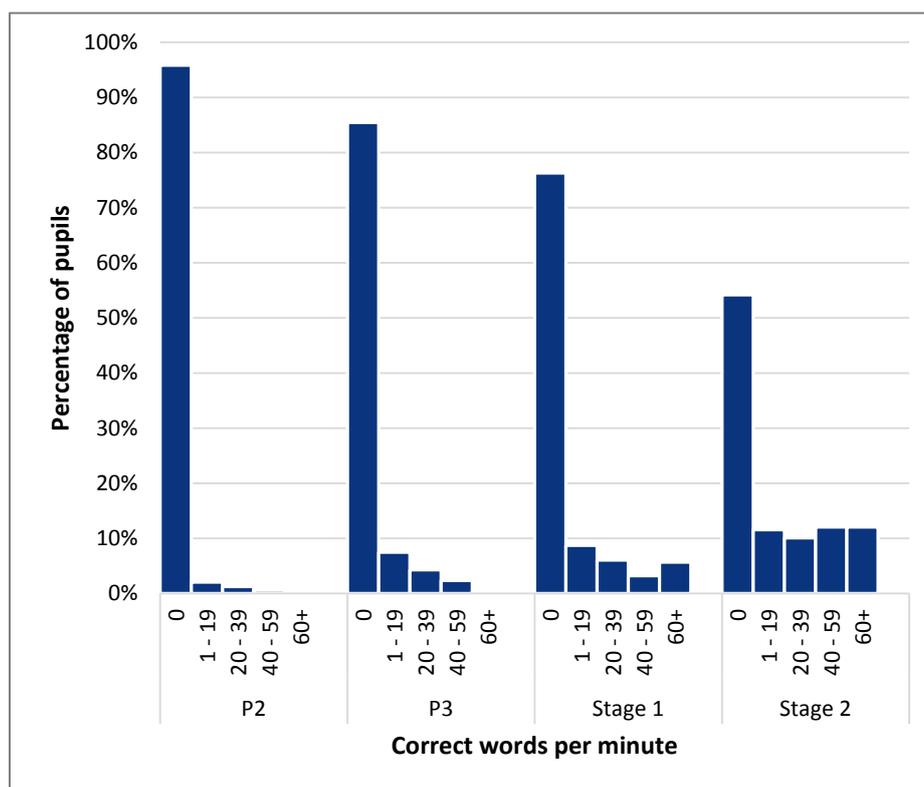


Table 10. Hausa mean oral reading fluency (ORF), by school type and grade

	Mean ORF	Linearized Std. Err.	p-value	No. of obs.
Primary 2	0.9			480
Boys	1.2	0.63	0.242	243
Girls	0.5	0.332		237
Primary 3	3.4			465
Boys	3.5	0.97	0.836	244
Girls	3.3	1.16		221
Stage 1	9.7			526
Boys	18.1	3.98	0.016	301
Girls*	6.5	2.44		225
Stage 2	14.7			406
Boys	27.8	4.49	0.003	238
Girls**	10.2	2.64		168

*significant at 95% confidence level ($p < .05$). **significant at 99% confidence level ($p < .01$)

5.1.5 Reading comprehension – Hausa

As noted earlier, the reading comprehension subtest identifies how well pupils understood the passage they read in the oral reading fluency subtest. Pupils are only asked questions pertaining to the amount of text read. The assessor does not ask pupils any questions if they did not read any words correctly, which automatically

results in a reading comprehension score of 0 for these pupils. The reading comprehension results are based out of a total of five questions and include pupils who were not asked any questions (and therefore had a score of 0).

Given the high percentage of pupils who could not read a single word of the oral reading passage, comprehension scores are correspondingly low. Overall, only 2% of P2 and 3% of P3 pupils could read with at least 80% comprehension. Excluding from the analysis children who were not asked any questions (because they did not read any words correctly), the average comprehension score for P2 and P3 was higher, approximately 2 and 2.5 out of 5 questions for P2 and P3, respectively, indicating that even as children learn to read, comprehension strategies still must be taught. (The highest score obtained was 5 questions out of 5.)

Given the lower percentage of zero scores and higher ORF scores in IQTE schools, Stage 1 and Stage 2 pupils had higher comprehension scores than pupils in government schools. Overall, 7% of Stage 1 and 12% of Stage 2 pupils were able to read with 80% or higher levels of understanding. Still, this means that only about 1 in 10 pupils in either Stage 1 or Stage 2 were able to read with a level of comprehension needed to read to learn. Though the results overall are poor, of note is a significant difference in boys' and girls' scores, more than twice as many boys than girls achieving a level of comprehension 80% or higher (see *Table 11*). For IQTE pupils who did not score 0 on oral reading fluency, the average comprehension rate was nearly 3 out of 5 questions, while the highest score was 5 out of 5 questions.

Table 11. Percentage of pupils reading Hausa with at least 80% comprehension, by school type and grade

	% of pupils reading with at least 80% comprehension	Sample obs. (n)
Primary 2	1%	3
Boys	1%	3
Girls	0%	0
Primary 3	2%	11
Boys	2%	6
Girls	2%	5
Stage 1	7%	41
Boys	15%	27
Girls	6%	14
Stage 2	12%	79
Boys	21%	49
Girls	10%	30

5.1.6 Listening comprehension – Hausa

The listening comprehension passage is designed to identify whether pupils can understand a simple passage read to them. By comparing results from the reading comprehension and listening comprehension subtasks, we can determine whether the lack of reading comprehension is due to insufficient reading ability or more generalized lack of comprehension ability for the language tested.

Compared to the reading comprehension task, a larger percentage of children across both school types and levels *were* able to comprehend the Hausa narrative read to them. **Figure 11** below demonstrates this contrast by comparing side-by-side the percentage of children who scores zero on reading comprehension with the percentage of children who scored zero in listening comprehension. As indicated in **Table 12** below, in P2, children answered 2 out of 5 (or 40%) of questions correctly, while in P3 the average increased to almost 3 out of 5 questions (58%). Children in IQTE schools performed even better, with listening comprehension rates of 67% (3.3 questions out of 5) in Stage 1 and 81% in Stage 2 (4 questions out of 5), on average. (In both school types, the highest score was 5 out of 5 questions.) Still, it is worth noting that 29% of P2 pupils, and 15% of P3 pupils scored zero, indicating a need to further build pupils’ oral language skills and comprehension strategies. (In comparison, only 8.4% of children in Stage 1 and 1.2% of pupils in Stage 2 scored zero.)

Comparing the listening comprehension results to the reading comprehension results further indicates that children who were among the better performing pupils in Hausa reading comprehension (i.e., had 60% comprehension or higher, or provided at least 3 correct responses) were also among the higher performing pupils in Hausa listening comprehension (i.e., obtained 60% comprehension or higher). However, the majority of pupils who performed well in Hausa listening comprehension did *not* perform well in reading comprehension, indicating that these pupils have not gained the requisite skills for reading printed text to allow them to utilize their Hausa oral language and comprehension skills.

Still, the fact that the listening comprehension scores are so much higher than the reading comprehension results is encouraging because it indicates that children have the ability to understand Hausa orally, but they currently lack the skills to read the printed language—skills they can acquire if they receive explicit instruction in key reading skills and have materials to practice reading.

Figure 11: Hausa Listening versus Reading Comprehension – Percentage of Pupils Scoring Zero, by School Type, and Grade

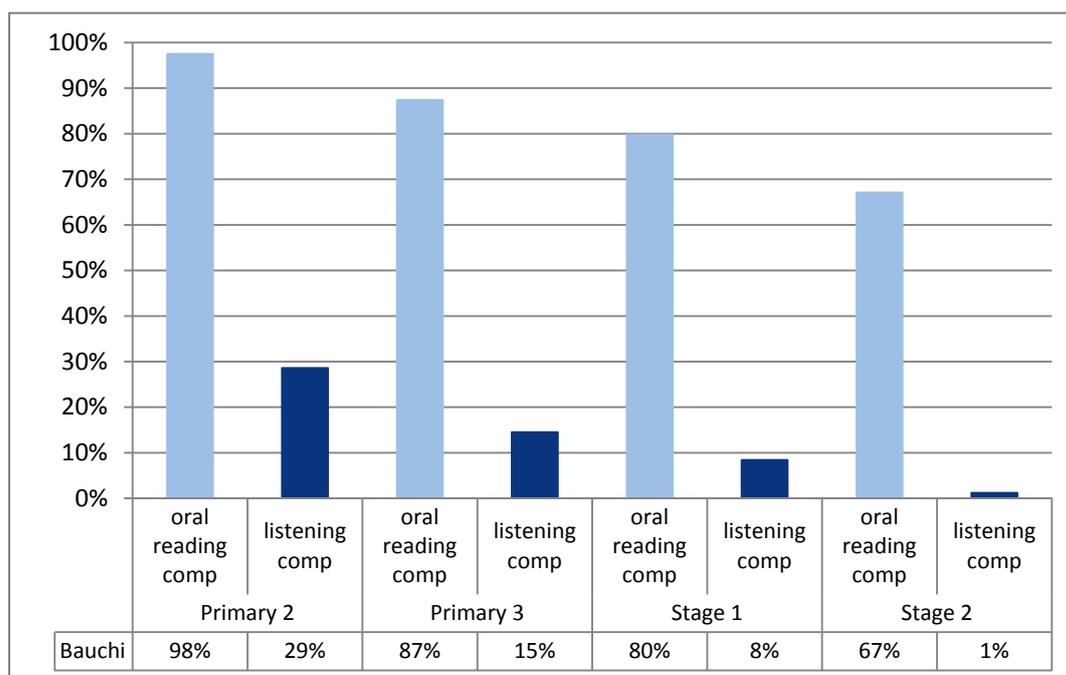


Table 12. Hausa listening comprehension scores – number and % of questions answered correctly, by school type and grade

	Mean number of questions answered correctly (out of 5)	% of questions answered correctly	p-value	Sample obs. (n)
Primary 2	2.0	40%		479
Boys	2.1	42%	0.490	242
Girls	1.9	39%		237
Primary 3	2.9	58%		466
Boys	2.8	56%	0.115	245
Girls	3.1	61%		221
Stage 1	3.3	67%		526
Boys	3.7	64%	0.052	301
Girls*	3.2	73%		225
Stage 2	4	81%		406
Boys	4.1	82%	0.486	238
Girls**	4.0	80%		168

5.2 EGRA English Results

Results summary

As noted earlier in the report, the EGRA for English was administered only to pupils in P3 and in Stage 2. All subtasks in the test were constructed in the same manner as the EGRA in Hausa, except that the items were in English. (The results were also calculated in the same manner as for EGRA in Hausa.) All instructions to the children were provided in Hausa to ensure that they understood what they were to do.

The overall results from the EGRA in English indicate that the vast majority of P3 pupils in government and Stage 2 pupils IQTE schools scored zero across the subtasks (see **Figure 12** below). While the percentage of zero scores is somewhat comparable between government IQTE and government schools across subtasks, average scores for IQTE pupils were significantly higher than those of their government school peers in non-word reading: three times higher in non-word reading, and five times higher in oral reading fluency. (They also attempted more items, and had a higher percentage of correct responses, than did children at government schools.) However, IQTE pupils still are not fluent English readers overall, obtaining an average ORF score of only 10.5 CWPM (see **Table 13**). Moreover, no P3 pupils, and only 1% of the Stage 2 pupils, were able to read with a high level of comprehension.

Unlike the Hausa results, the English listening comprehension scores were not significantly better than the reading comprehension scores. This indicates that children have not yet gained sufficient English oral language skills to help them read with comprehension.

Figure 12: Percentage of children scoring 0, by grade and subtask: Government and IQTE Schools – English

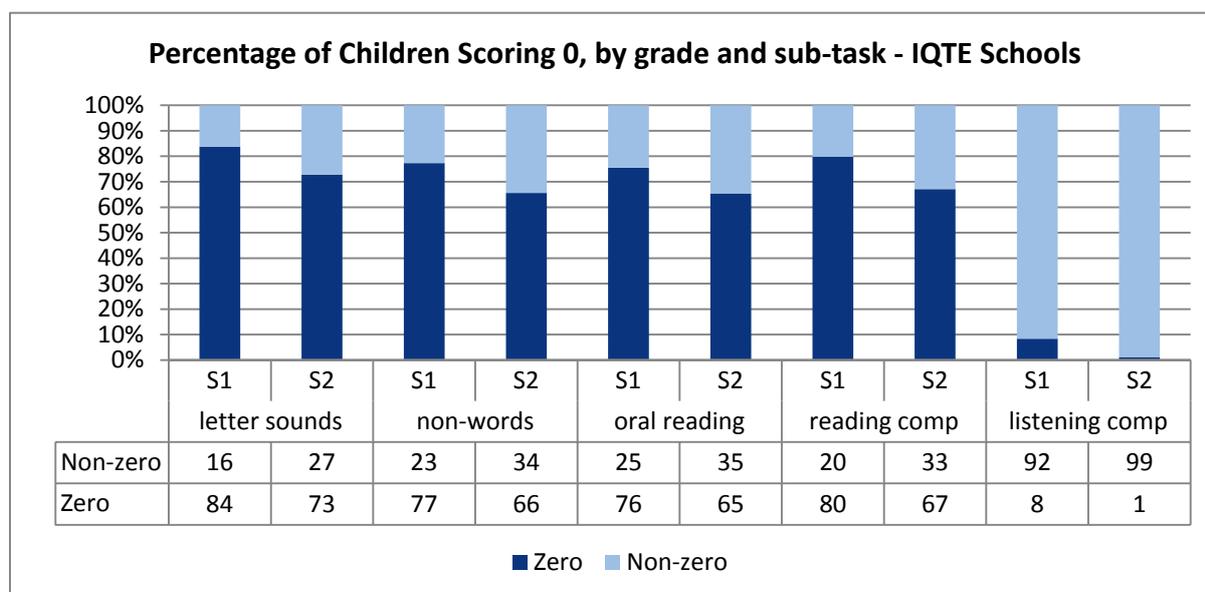


Table 13. EGRA English performance: Average (mean) score and % correct of items attempted, by level

Subtask	Primary 3		Stage 2	
	No. Correct/Minute	% Correct/attempted	No. Correct/Minute	% Correct/attempted
Letter sound identification	2.8	9%	4.0	10%
Non-word decoding	2.4	9%	9.0	25%
Oral reading fluency	1.8	7%	10.5	23%

5.2.1 Letter sound identification – English

Most children in P3 (84%) and in Stage 2 (83%) were unable to identify one English letter sound correctly. The average score was only 2.8 correct letter sounds per minute (CLSPM) in P3 and 4.0 CLSPM in Stage 2 (see **Table 14**). For children who could pronounce at least one letter sound correctly, the average score was 2.8 CLSPM in P3 and 19.7 CLSPM in Stage 2. (The highest score achieved in P3 was 70 CLSPM and 62 CLSPM in Stage 2.) Although both boys and girls performed very poorly, there is a statistically significant difference in boys' and girls' mean scores in Stage 2 (6.4 for boys compared to 3.1 for girls).

Table 14. English mean correct letter sounds per minute, by school type and grade

	Mean CLSPM	Standard error	p-value	No. of obs.
Primary 3	2.8			467
Boys	2.1	0.53	0.277	246
Girls	3.7	1.3		221
Stage 2	19.7			406
Boys	6.4	1.08	0.011	238
Girls*	3.1	1.17		168

*significant at 95% confidence level (p<.05)

5.2.2 Non-word decoding – English

The results of this EGRA subtest reveal that in government schools, the majority of P3 pupils (83%) and Stage 2 IQTE pupils (81%) cannot decode any words. Consequently, the overall means score for both groups is low: only 2.4 non-words per minute in P3, though Stage 2 pupils scored a much higher average of 9.0 non-words per minute (see **Table 15**). (Excluding zero scores, the means were 2.4 for P3 pupils and 27.8 for Stage 2 pupils. The maximum score received was 38 CNONWPM in P3 and 70 in Stage 2.) While there is not a significant difference between boys' and girls' performance in government schools, there is a difference in performance by gender in IQTE schools, with boys performing better than girls (16.5 CNONWPM compared to 6.4).

Table 15. English mean correct non-words per minute, by school type and grade

	Mean CNONWPM	Linearized Std. Err.	p-value	No. of obs.
Primary 3	2.4			467
Boys	2.2	0.62	0.484	246
Girls	2.7	0.97		221
Stage 2	9.0			406
Boys	16.5	2.35	0.002	238
Girls**	6.4	1.66		168

**significant at 99% confidence level (p<.01)

5.2.3 Oral reading fluency – English

Approximately 9 out of 10 P3 pupils in government schools could not read a single word of connected English text—after 3 years of receiving English-language instruction per the basic education curriculum. As a result, the mean ORF score is very low: only 1.8 correct words per minute (see *Table 16*). (For children who read at least one word correctly, the average was 14.0. The highest score obtained was 61.3 CWPM.) This is a particularly important finding since these children will be expected to transition to learning *in* English in P4.

In IQTE schools, English reading performance was somewhat better, though scores were still low. Most P3 children scored zero (84% of pupils could not read a single word of the text), but the overall mean score (10.5 CWPM) was higher than in government schools. (For children who did not score zero, the average score was 33.1 CWPM (see *Table 16*). The highest score obtained was 145.7 CWPM.) A significant gender gap exists in Stage 2 IQTE schools, with boys performing three times as well as girls: 20.1 CWPM for boys compared to 7.2 CWPM for girls.

Table 16. English mean oral reading fluency, by school type and grade

	Mean ORF	Linearized Std. Err.	p-value	No. of obs.
Primary 3	1.8			467
Boys	2.0	0.65	0.539	246
Girls	1.6	0.62		221
Stage 2	10.5			406
Boys	20.1	3.92	0.017	238
Girls*	7.24	2.22		168

*significant at 95% confidence level (p<.05)

5.2.4 Reading comprehension – English

Similar to the EGRA in Hausa, the EGRA English reading comprehension results are based out of a total of five questions, and the number of questions a child is asked depends on the amount of text read.

Given that only a few P3 pupils could read any words correctly in the passage (87% scored zero), very few were asked any comprehension questions. Of the children who read enough words correctly to be asked at least one question, the overall average score was 0, meaning the children were not able to provide correct responses to the question(s) they were asked. No P3 pupils could read with 80% comprehension or higher (see **Table 17**) and the highest score was 3 out of 5 questions correct, indicating that P3 children do not have a sufficient level of comprehension needed to successfully transition to receiving instruction in English in P4.

The overall level of English reading comprehension for Stage 2 IQTE pupils was similarly very low. Of these pupils, 84% did not read any words of the story correctly and therefore were not asked any comprehension questions. Among pupils who read enough words correctly to be asked at least one question, the average comprehension score was almost 1 question answered correctly. Only 2% of Stage 2 pupils read with at least 80% comprehension—or correctly answered at least 4 out of 5 questions correctly. No pupils achieved a score of 5 out of 5 questions correct.

Table 17. Percentage of pupils reading with at least 80% comprehension – English

	% of pupils reading with at least 80% comprehension	Sample obs. (n)
Primary 3	0%	0
Boys	0.3%	1
Girls	0%	0
Stage 2	2%	10
Boys	7%	9
Girls	0.2%	1

5.2.5 Listening comprehension – English

In comparison to the Hausa oral language comprehension task, results for the English listening comprehension exercise were much lower, indicating that children do not understand the language well (see **Table 18**). This lack of oral language comprehension is likely to hamper their ability to learn to read English, let alone to learn curriculum content *in* English.

Almost all P3 pupils were unable to answer a single question correctly (children were asked and had an opportunity to respond to all questions), resulting in a very low overall average score of less than one correct question. Stage 2 pupils similarly struggled with oral English comprehension: 85% scored zero on this task, and the average number of questions answered correctly was less than 1 question out of 5.

For the children who did not score zero on this task (32 pupils in P3 and 74 pupils in Stage 2 out of the total sample), the average comprehension rate was still low for P3 pupils (less than 1 question answered correctly out of 5, on average). In contrast, for Stage 2 children who did not score zero on this task, scores were higher: an average of

2 out of 5 correct responses was provided. The highest score in P3 and Stage 2 was 5 correct questions.

Table 18. English listening comprehension scores – number and % of questions answered correctly (out of 5), by school type and grade

	# of questions answered correctly	% of questions answered correctly	p-value	Sample obs. (n)
Primary 3	0.2	4.5%		467
Boys	0.3	6.4%	0.125	246
Girls	0.1	2.0%		221
Stage 2	0.3	5.3%		406
Boys	0.6	10.9%	0.025	238
Girls*	0.2	3.3%		168

*significant at 95% confidence level ($p < .05$)

Children who performed better on the English listening comprehension subtask (i.e., provided at least one correct response) also tended to be among the higher performing pupils in English reading comprehension. However, not all children who scored higher than zero on the listening comprehension subtask performed well in English reading comprehension, indicating that these children may lack the English-language vocabulary or other comprehension strategies needed to understand the passage.

5.2.6 Oral reading fluency and home language

As noted earlier in the report, 81% of the P2 and P3 pupils in government schools and 88% in IQTE schools reported Hausa as the language they most frequently speak at home, while 13% of P2 and P3 government school pupils and 9% of pupils in IQTE schools reported speaking Fulfulde. Given that approximately 10% of pupils in both school types speak a home language other than Hausa, oral reading fluency scores were also analyzed examining the language tested and home language.

Table 19 below presents average ORF scores for both Hausa and English by pupils' home language, school type, and grade/stage. The ORF scores are the mean number of words correctly read in 1 minute. The results indicate that pupils who reported that Fulfulde is their home language had, on average, lower scores in both Hausa and English oral reading fluency than their peers who reported Hausa is their home language. In P3, Hausa-speaking pupils had an average Hausa ORF score that was - more than three times as high as Fulfulde-speaking pupils (3.5 correct words per minute compared to 0.3), a difference that is statistically significant. Children whose home language is Fulfulde were also disadvantaged in English reading. They performed more poorly in English oral reading fluency, a gap that is especially pronounced in Stage 2: 4.9 correct words per minute for pupils whose home language is Fulfulde compared to 11.1 correct words per minute for pupils whose home language is Hausa.

While results for children in both home languages groups are low, the noteworthy difference in reading outcomes indicates that children who speak Fulfulde as a home

language face disadvantages when learning to read. These are likely to include a lack of teachers who speak their home language (only 7% of the P2 and P3 government teachers and 4% of the IQTE school teachers reported that Fulfulde is the language they speak and understand best). Additionally, because children who speak Fulfulde as a home language do not have an opportunity to learn to read Fulfulde in school, they cannot transfer skills gained from learning to read a language they know best to learning to read another language that is less familiar to them (e.g., Hausa and English). As a result, these children are likely to encounter challenges when learning academic content taught in those languages. While additional information is needed to further understand the language environment in schools and homes in Bauchi, the needs of language-minority children need to be addressed to ensure that they receive equal access to a quality education.

Table 19. Oral reading fluency (ORF), by home language, school type, and grade

Test language	Home language	P2			P3			S1			S2		
		mean ORF	p-value	n	mean ORF	p-value	n	mean ORF	p-value	n	mean ORF	p-value	n
Hausa	Hausa	1.1	0.168	352	3.5	0.004	349	9.6	0.691	466	14.7	0.020	350
	Fulfulde	0.3		91	0.3**		74	13.5		36	6.3*		38
English	Hausa	<i>not tested</i>			1.9	0.010	350	<i>not tested</i>			11.1	0.032	350
	Fulfulde	<i>not tested</i>			0.1*		74	<i>not tested</i>			4.9*		38

5.2.7 Relationships between Hausa and English reading

The small number of children reading well in either Hausa or English languages makes cross-language comparisons difficult. However, from the few children who did perform well on the reading subtasks, some trends begin to emerge. Children who are among the high performers in Hausa reading comprehension also tended to perform well in English reading comprehension. Conversely, there were no children who performed well in English reading comprehension who did not also perform well in Hausa reading comprehension, suggesting that learning to read Hausa plays an important role in learning to read and understand English. Of note is that a large number of the children who can read and understand Hausa well did not perform well in English reading comprehension. This suggests that children need better support to help them transition from being able to read and understand Hausa to being able to read and understand English.

5.3 EGMA Results

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

5.3.1 Overall results by subtask and class

Figure 13 and *Table 20* illustrate the results on the EGMA assessment by subtask and

Key to EGMA Tables and Graphs

The ‡ symbol indicates that these subtasks were timed and the means reported are the mean number of correct responses in terms of the number of items attempted, for all other subtasks the means reported represent the number of correct responses in terms of the number of items.

grade for the government schools. **Figure 14** and **Table 21** illustrate the results on the EGMA assessment by subtask and stage for the IQTE schools.

The results create the general impression that pupils are more successful on those subtasks that assess more procedural knowledge: number identification and addition and subtraction level 1. By contrast, pupils perform less well on the subtasks that involve more conceptual understanding, namely the quantity discrimination, missing number, and the addition and subtraction level 2 subtasks.¹⁷

Figure 13: Mean scores of pupils by subtask and class – government schools

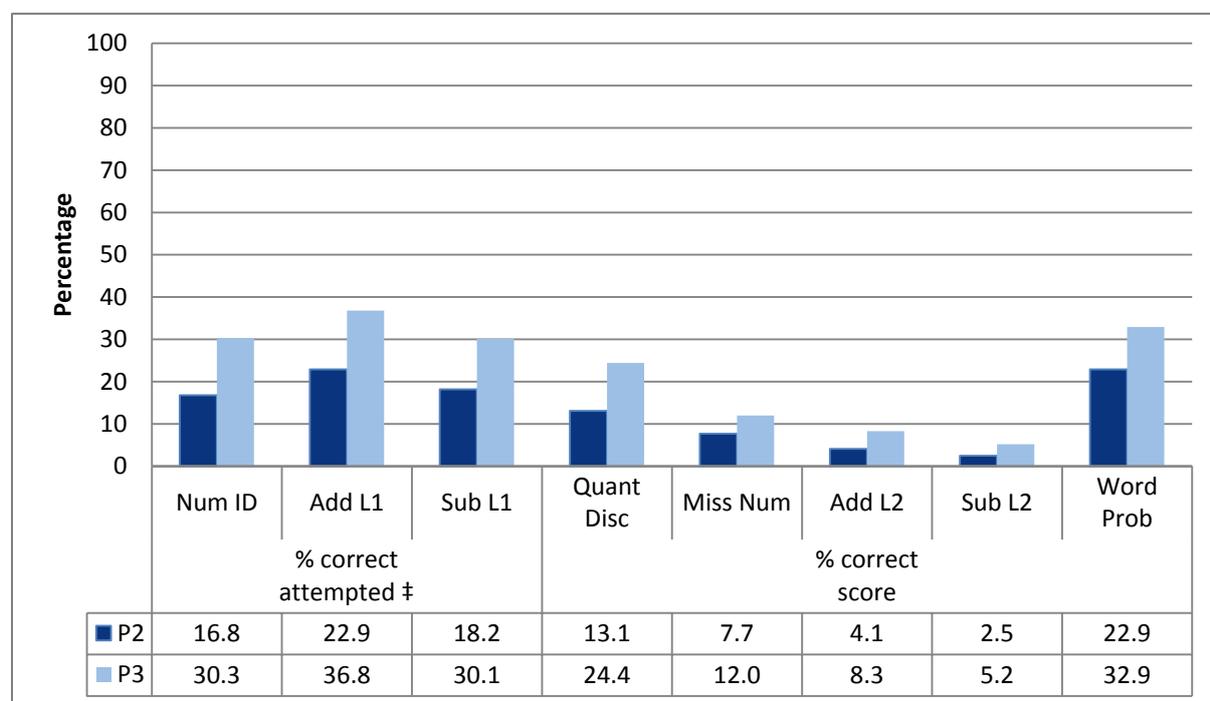


Table 20. EGMA performance: Fluency (number of correct items per minute) and mean percent correct, by grade – Government schools

	Primary 2			Primary 3		
	No. Correct/Minute	% Correct/attempted	% Correct/total	No. Correct/Minute	% Correct/attempted	% Correct/total
Number identification‡	3.3	16.8%		6.3	30.3%	
Addition (level 1) ‡	2.7	22.9%		4.2	36.8%	
Subtraction (level 1) ‡	2.1	18.2%		3.5	30.1%	
Quantity discrimination			13.1%			24.4%

¹⁷ The addition and subtraction level 2 subtasks are more conceptual than the addition and subtraction level 1 subtasks because the pupil must understand what he or she is doing, applying the level 1 skills. While the level 2 subtasks are not purely conceptual because with time pupils will develop some automaticity with the items in these subtasks as well, they are more conceptual than the level 1 subtasks, especially so for Primary 2 and Primary 3 pupils.

	Primary 2			Primary 3		
	No. Correct/Minute	% Correct/attempted	% Correct/total	No. Correct/Minute	% Correct/attempted	% Correct/total
Missing number			7.7%			12%
Addition (level 2)			4.1%			8.3%
Subtraction (level 2)			2.5%			5.2%
Word problems			22.9%			32.9%

‡These subtasks were timed and the means reported for these subtasks are the mean number of correct responses in terms of the number of items attempted; for all other subtasks the means reported represent the number of correct responses in terms of the number of items.

Figure 14: Mean scores of pupils by subtask and class – IQTE schools

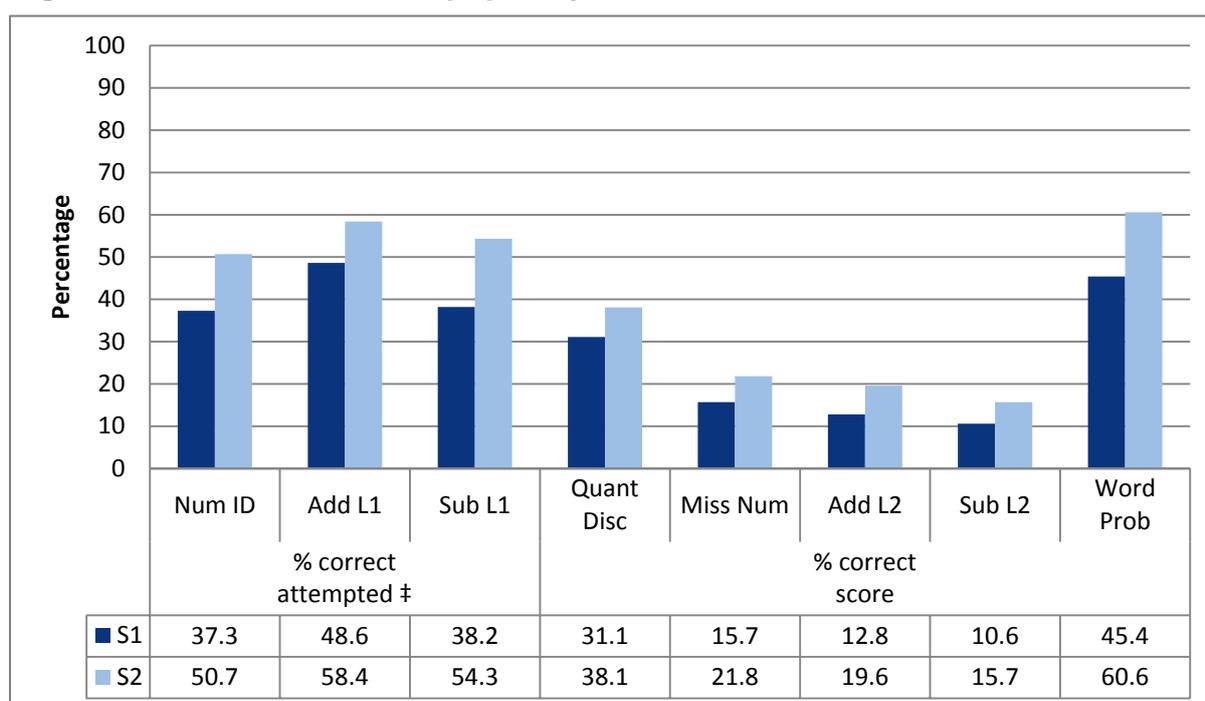


Table 21. EGMA performance: Fluency (number of correct items per minute) and mean percent correct, by grade – IQTE schools

	Stage 1			Stage 2		
	No. Correct/Minute	% Correct/attempted	% Correct/total	No. Correct/Minute	% Correct/attempted	% Correct/total
Number identification‡	9.1	37.3%		12.6	50.7%	
Addition (level 1) ‡	6.2	48.6%		7.9	58.4%	
Subtraction (level 1) ‡	4.9	38.2%		7.2	54.3%	
Quantity discrimination			31.1%			38.1%
Missing number			15.7%			21.8%

	Stage 1			Stage 2		
	No. Correct/ Minute	% Correct/ attempted	% Correct/ total	No. Correct/ Minute	% Correct/ attempted	% Correct/ total
Addition (level 2)			12.8%			19.6%
Subtraction (level 2)			10.6%			15.7%
Word problems			45.4%			60.6%

‡These tasks were timed and the means reported for these subtasks are the mean number of correct responses in terms of the number of items attempted, for all other subtasks the means reported represent the number of correct responses in terms of the number of items.

What is striking is that the pupils generally perform better on the word problems subtask than they do on any of the other subtasks. While the average on the problem solving subtask is low (especially in the government schools), the fact that the pupils perform better on this subtask than on most of the others probably speaks to the way in which pupils experience school mathematics. When asked to solve a contextual problem not framed in the symbols of school mathematics, the pupils perform better than they do on the tasks that “look” more like school mathematics.

All subtasks indicate progression in pupil performance from P2 to P3 and from Stage 1 to Stage 2 in the government and IQTE schools respectively. This progression is greater for the more procedural items—number identification and the addition and subtraction level 1 tasks—than it is for the other subtasks that assess more conceptual understanding. The P3 and Stage 2 pupils demonstrate greater fluency than the P2 and Stage 1 pupils do respectively on all three of the subtasks that measure procedural fluency (automaticity). This greater fluency on the more procedural subtasks accounts, in part, for the better performance of the P3 and Stage 2 pupils on these and the more conceptual subtasks. As pupils gain fluency (automaticity) on the procedural mathematical skills, we expect them to perform better on the tasks that require more conceptual understanding as well as the application of procedural knowledge.

Notwithstanding the better performance by the P3 pupils in government schools, the performance of both the P2 and P3 pupils is poor in terms of both accuracy (the number of items that pupils respond to correctly) and in terms of fluency (the number of items that pupils respond to correctly per minute). The P3 pupils in government schools identified, on average, fewer than 7 numbers correctly in one minute and P2 pupils fewer than 4. Although the IQTE pupils responded with nearly double the fluency of the government school pupils, the Stage 2 pupils were only able to correctly identify numbers with a fluency of approximately 13 numbers per minute and could only correctly identify approximately half of the numbers they attempted.

Figure 15 and **Figure 16** illustrate the zero scores of pupils across the subtasks, that is, the number of pupils who did not respond correctly to a single item for each subtask.

Figure 15: Percentage of zero scores by subtask and class – gov't schools

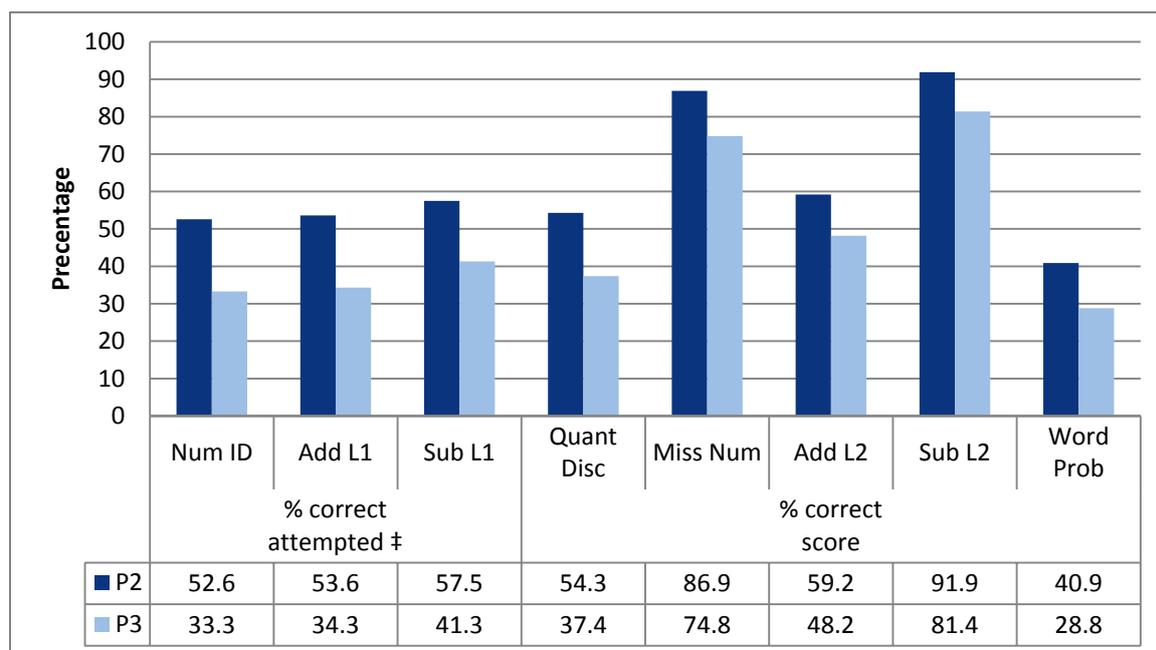
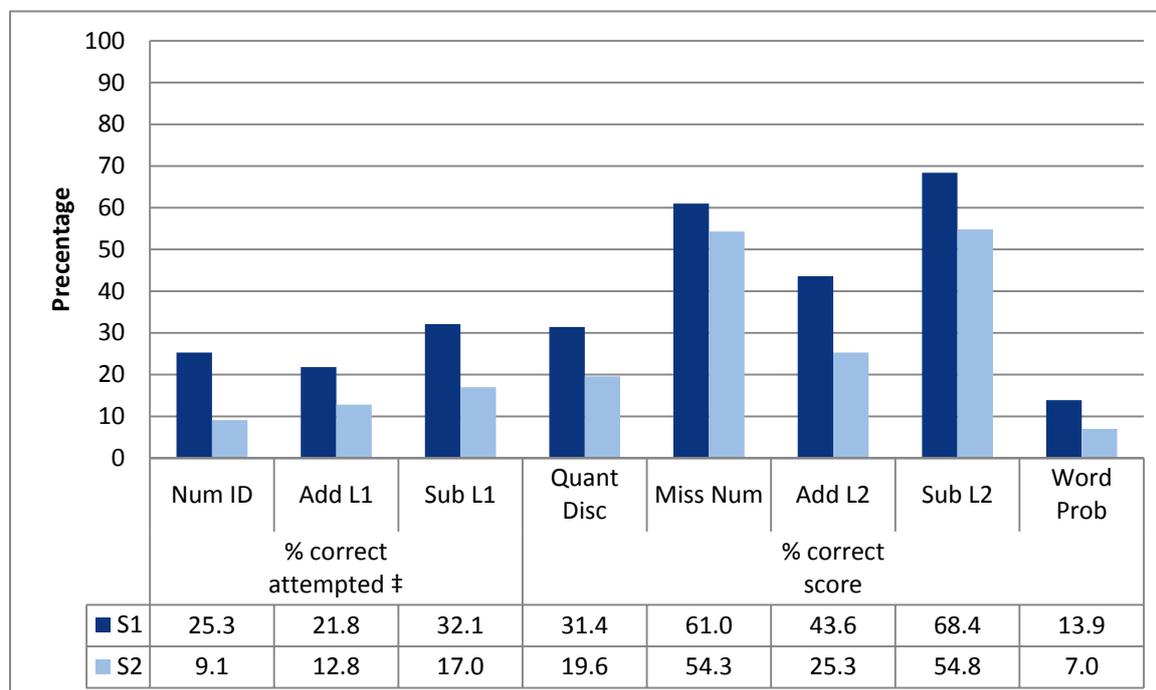


Figure 16: Percentage of zero scores by subtask and class – IQTE schools



For the number identification subtask, 53% of P2 pupils and 33% of P3 pupils were unable to identify a single number correctly. Although these figures are not quite as high for the IQTE schools, one quarter of the Stage 1 pupils in these schools were still unable to identify a single number correctly. In real terms this means that these pupils were unable to identify the number 4.

Across all of the tasks, 23% of P2, 11% of P3, 15% of Stage 1, and 3% of Stage 2 pupils were unable to answer a single item on the EGMA assessment correctly.

The zero score trend is similar to the average performance across subtasks. Typically, the poorer the performance on each subtask, the higher the zero score for the subtask. 92% of the P2, 81% of the P3, 68% of the Stage 1, and 55% of the Stage 2 pupils were unable to answer a single subtraction level 2 item correctly. The easiest item in the subtask was: $19 - 2 = \square$. Given pupils should be expected to respond correctly to this item by the end of 1 year of schooling, pupils' poor performance after 2, 3, and possibly more years of school is particularly problematic.

Figure 17 illustrates the average performance across subtasks by gender in government schools. Across the classes and subtasks boys and girls appear to perform reasonably similarly on all subtasks, with statistically significant differences between boys and girls in three subtasks among P2 pupils and one subtask among P3 pupils. Because the overall performance on the assessment is so low and there is no strong evidence of gender bias in the results, attention should be focused on improving general performance for all pupils.

Figure 17: Mean scores of pupils by subtask and gender – government schools

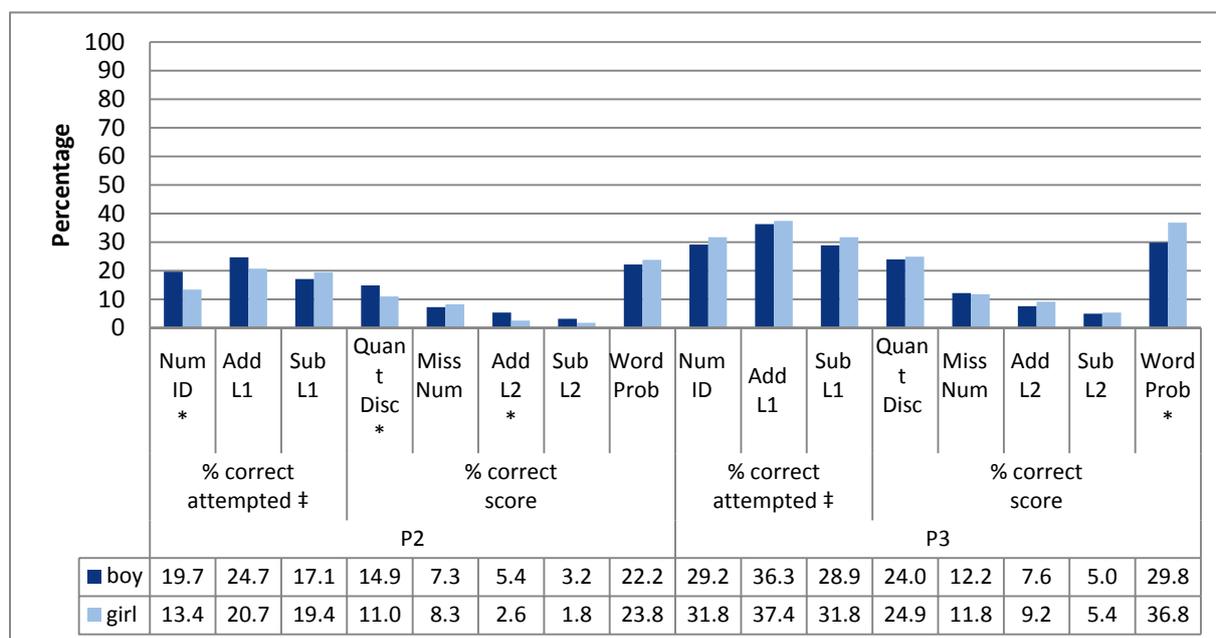
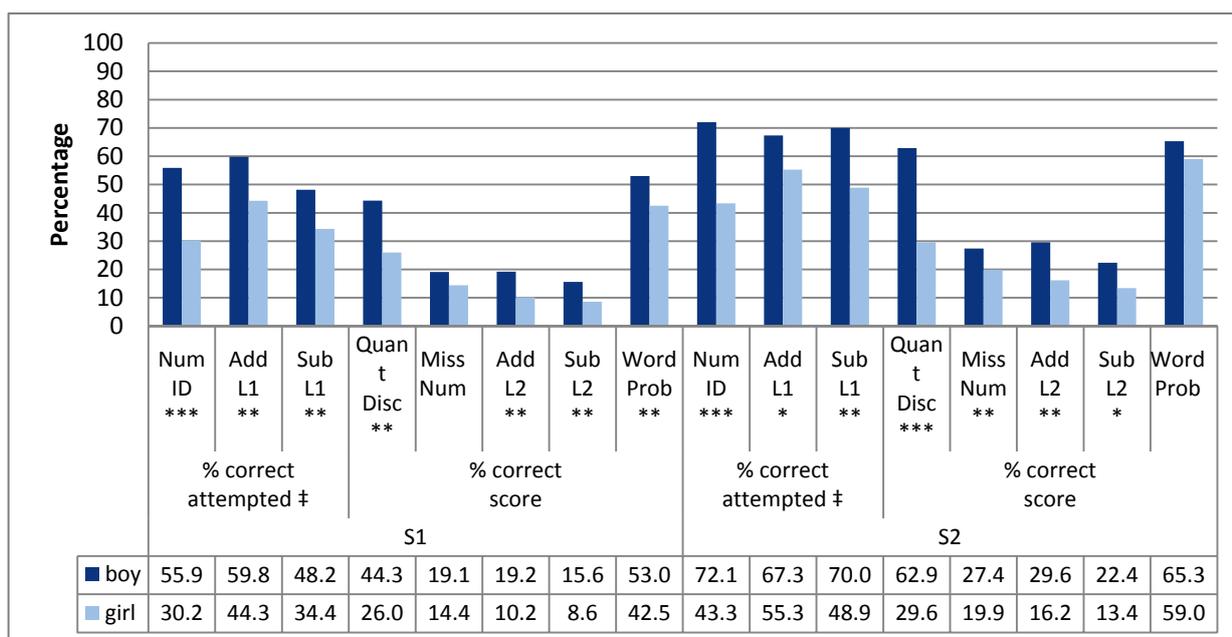


Figure 18 illustrates the average performance across subtasks by gender in IQTE schools. Across the classes and subtasks the boys perform better than the girls on all subtasks. These differences are statistically significant on all except one subtask per stage. Although much attention needs to be paid to improving the performance of pupils in general, some reflection is also needed to identify the causes of and to address the disparity in performance between boys and girls in the IQTE schools in Bauchi.

Figure 18: Mean scores of pupils by subtask and gender – IQTE schools



5.3.2 EGMA results by subtask

Number identification

Number identification is to mathematics what letter recognition is to reading. If pupils cannot identify numbers, they cannot engage effectively in all aspects of mathematics.

The number identification subtask assesses the most procedural of mathematical skills and is the least demanding of the EGMA subtasks.

Figure 19 and **Figure 20** illustrate the performance by item on this subtask for the government school and IQTE pupils respectively.

4	0	9	13	28
33	37	40	55	69
74	81	82	90	99
118	127	405	654	936

Figure 19: Number identification – government schools

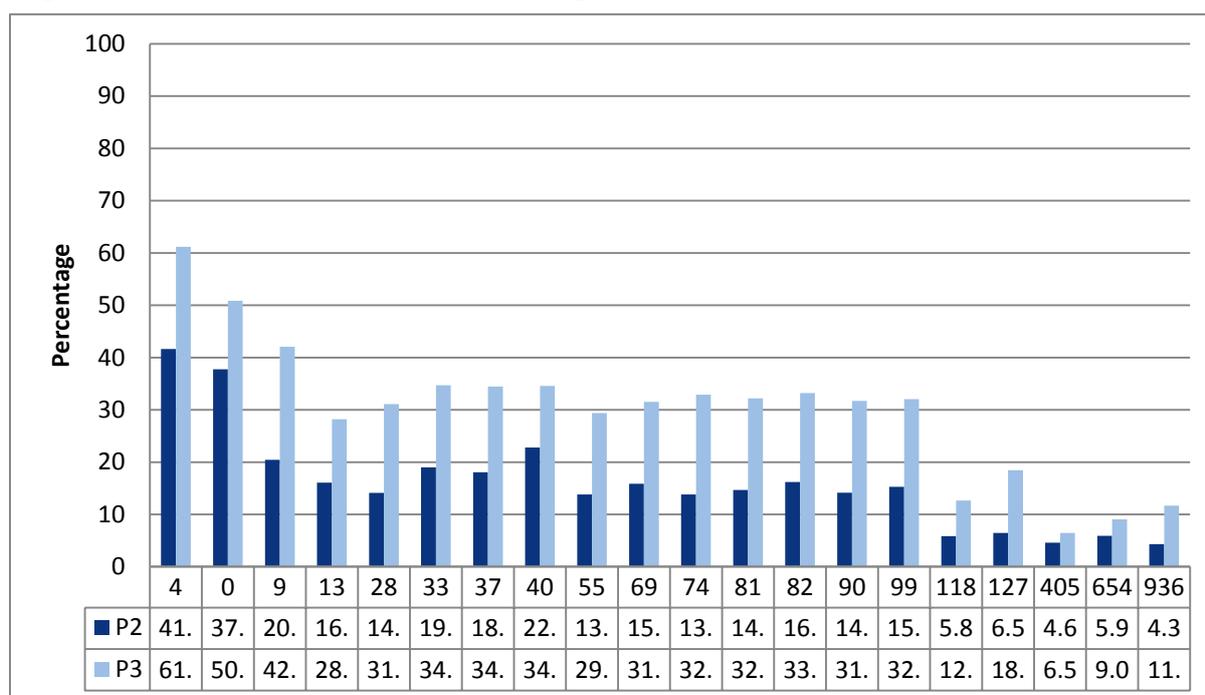
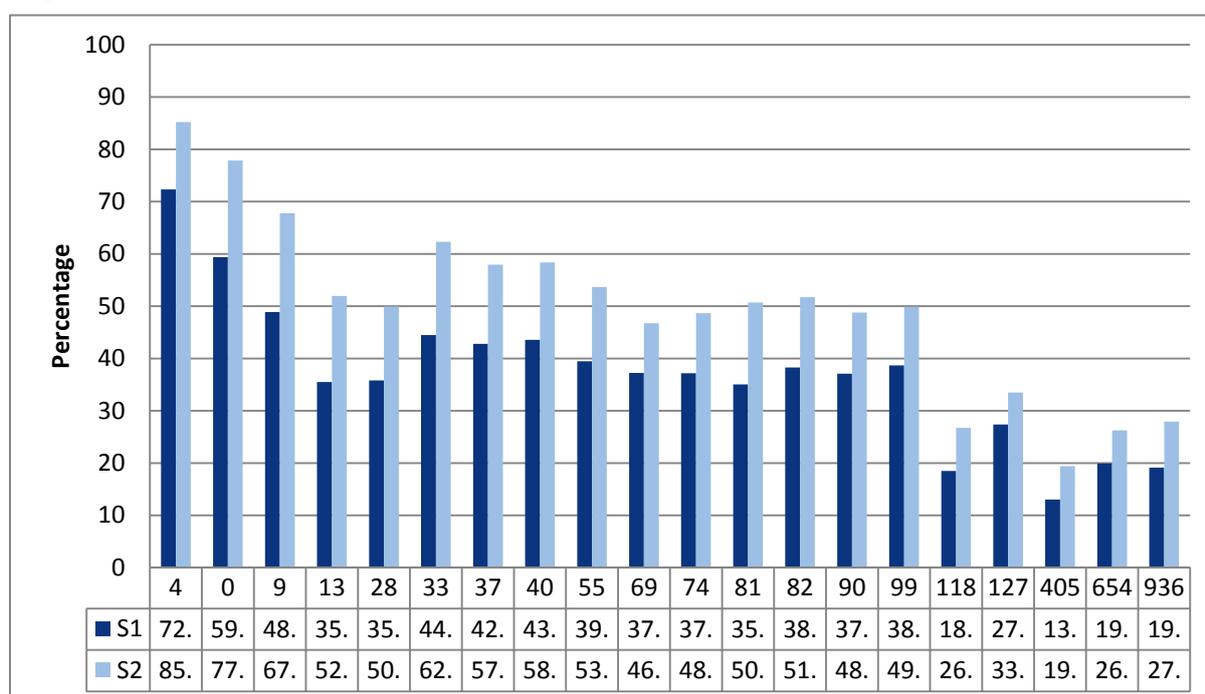


Figure 20: Number identification – IQTE schools



On this subtask, pupils in the IQTE schools perform better than the pupils from government schools do, and P3 and Stage 2 pupils respectively perform better than the P2 and Stage 1 pupils do. Despite these differences, across the items, performance is extremely low for what is a foundational skill, with only 42% of P2 and 61% of P3 pupils being able to recognize the number 4.

Notwithstanding the differences between the school types, grades, and stages, the trend in performance across the items is the same. There is a drop-off in performance

across the items with pupils performing better on single-digit numbers than on double-digit and three-digit numbers. With the double-digit items the number size appears to have an impact on pupil performance, with performance decreasing as the number size changes from less than 40 to between 40 and 100. Performance on the three-digit numbers is consistently very poor with fewer than 10% of government school pupils and fewer than, 20% of IQTE pupils, on average, being able to identify these numbers.

Addition and subtraction (level 1)

As described earlier, both addition and subtraction were assessed in two different tasks. The level 1 tasks consisted of items on which it is expected that pupils should develop some level of automaticity/fluency.

Figure 21 **Figure 22** illustrate the performance by item on the addition subtask, and **Figure 23** and **Figure 24** illustrate the performance by item on the subtraction subtask for the government school and IQTE pupils, respectively.

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

As with the other subtasks, pupils in the IQTE schools perform better than the pupils from government schools do, and P3 and Stage 2 pupils respectively perform better than the P2 and Stage 1 pupils do.

Despite the differences between the school types, grades, and stages, the trend in performance across the items is the same. Performance drops off significantly as the pupils are exposed to addition problems with a sum greater than 10. With the subtraction subtask, there is a marked drop-off in performance as the pupils are exposed to subtraction problems with the larger number being greater than 10.

Figure 21: Addition L1 – government schools

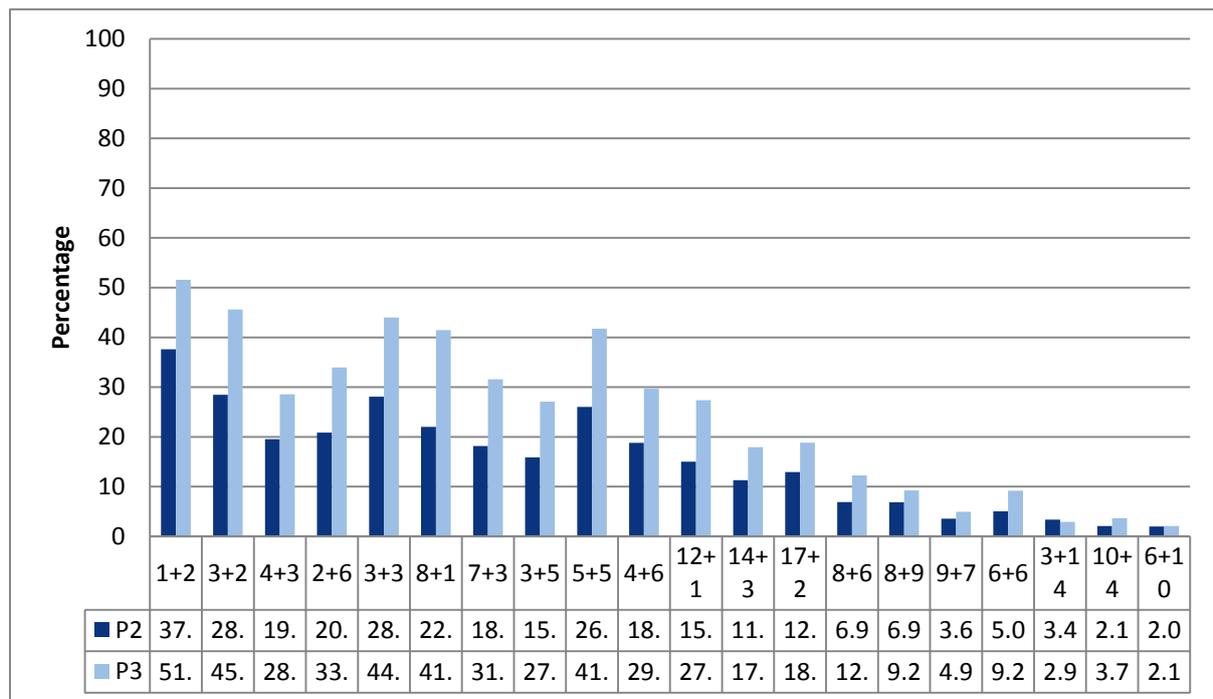


Figure 22: Addition L1 – IQTE schools

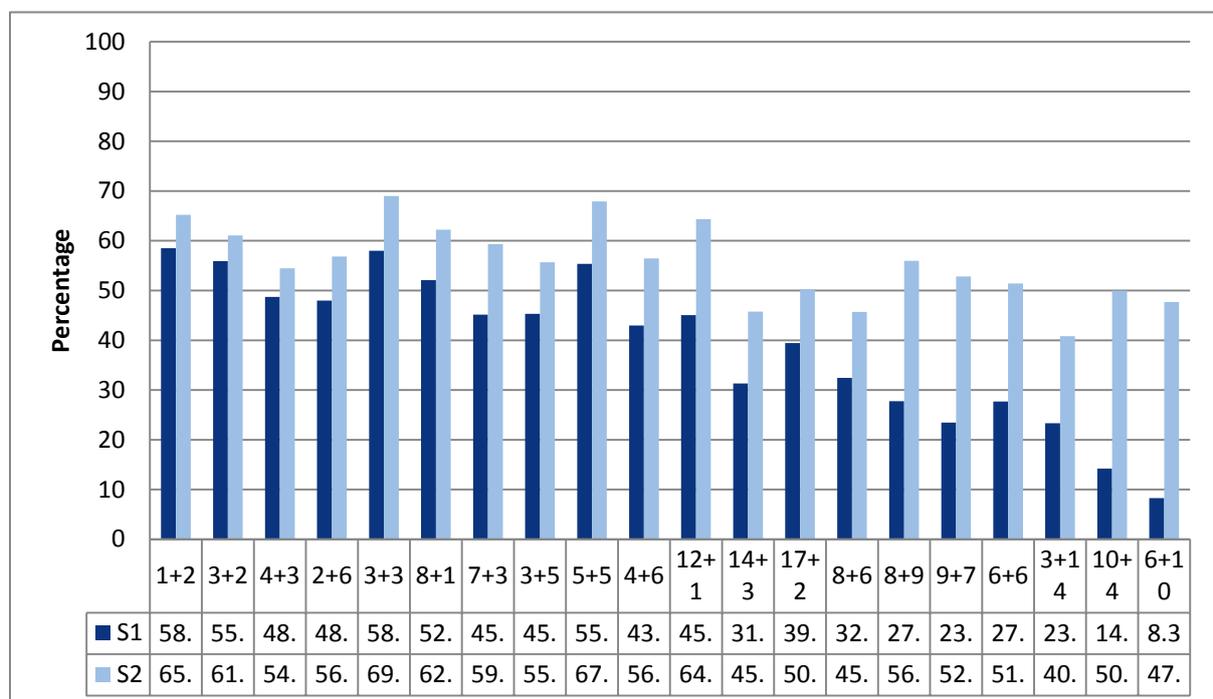


Figure 23: Subtraction L1 – government schools

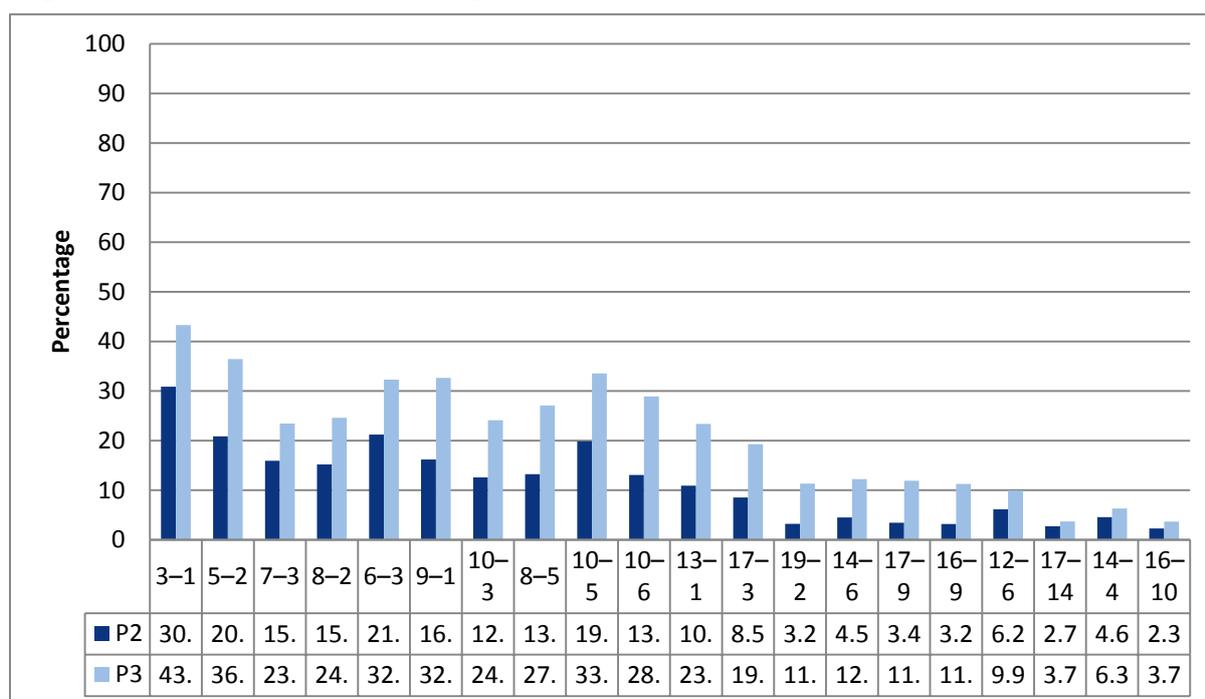
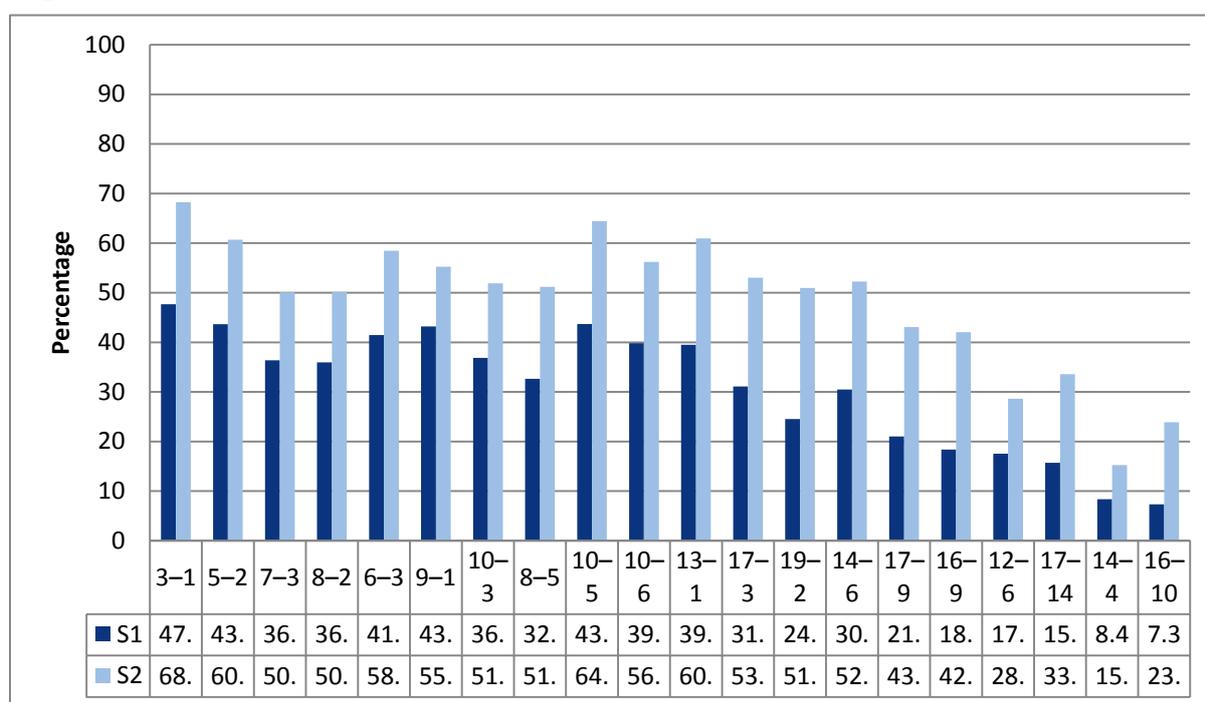


Figure 24: Subtraction L1 – IQTE schools



Since the items on these subtasks represent the foundational addition and subtraction “facts” that are at the heart of addition and subtraction with larger numbers, it is not only expected that pupils should be able to respond correctly to a high percentage of these items, but they should also be able to do so with automaticity/fluency. As **Table 20** and **Table 21** show, the P2 pupils are barely able to achieve a fluency rate of three correct responses per minute for either the addition or the subtraction level 1 items.

The P3 pupils only achieve a fluency level of fewer than four correct responses per minute. While the Stage 1 and Stage 2 pupils perform with roughly double the fluency of the P1 and P2 pupils, the Stage 2 pupils are still only able to respond correctly to less than 60% of these foundational items.

Quantity discrimination

Quantity discrimination in EGMA measures pupils' ability to make judgments about differences by comparing quantities, represented by numbers. The subtask measures the pupils' sense of magnitude—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 mathematical 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, this means developing an awareness that 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.

Figure 25 and **Figure 26** illustrate the performance by item on this subtask for the government school and IQTE pupils, respectively.

5	3	82	76
14	27	129	131
33	28	365	445
55	45	720	602
63	65	943	945

Figure 25: Quantity discrimination – government schools

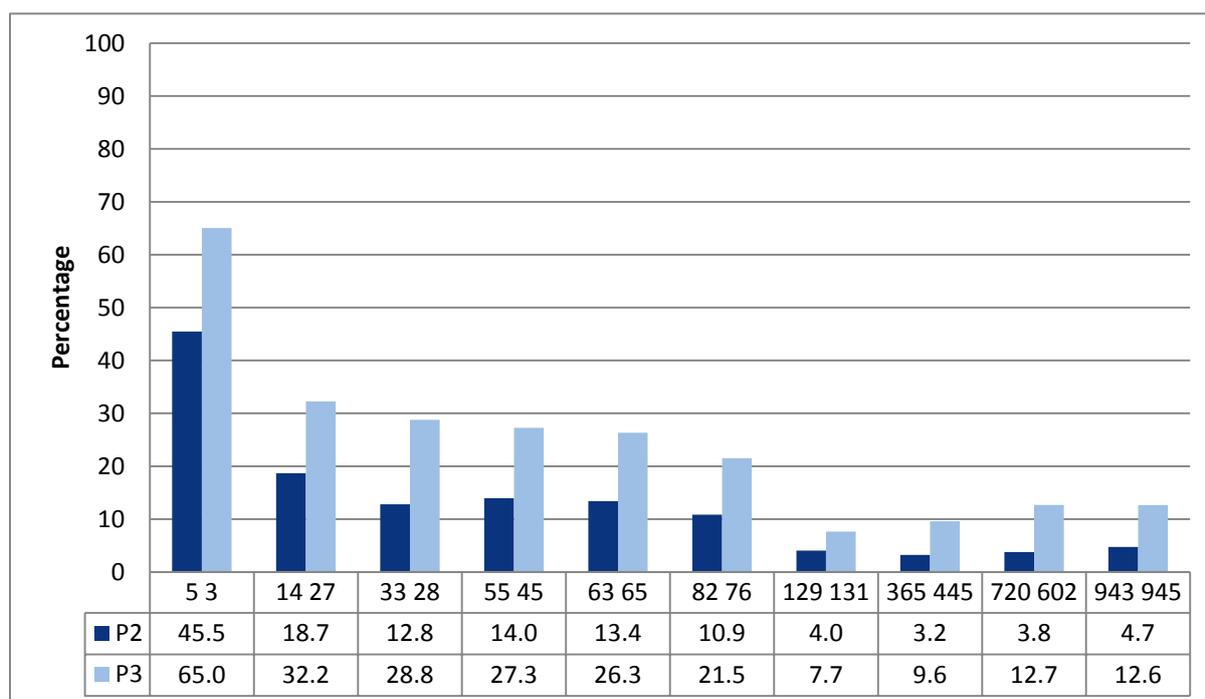
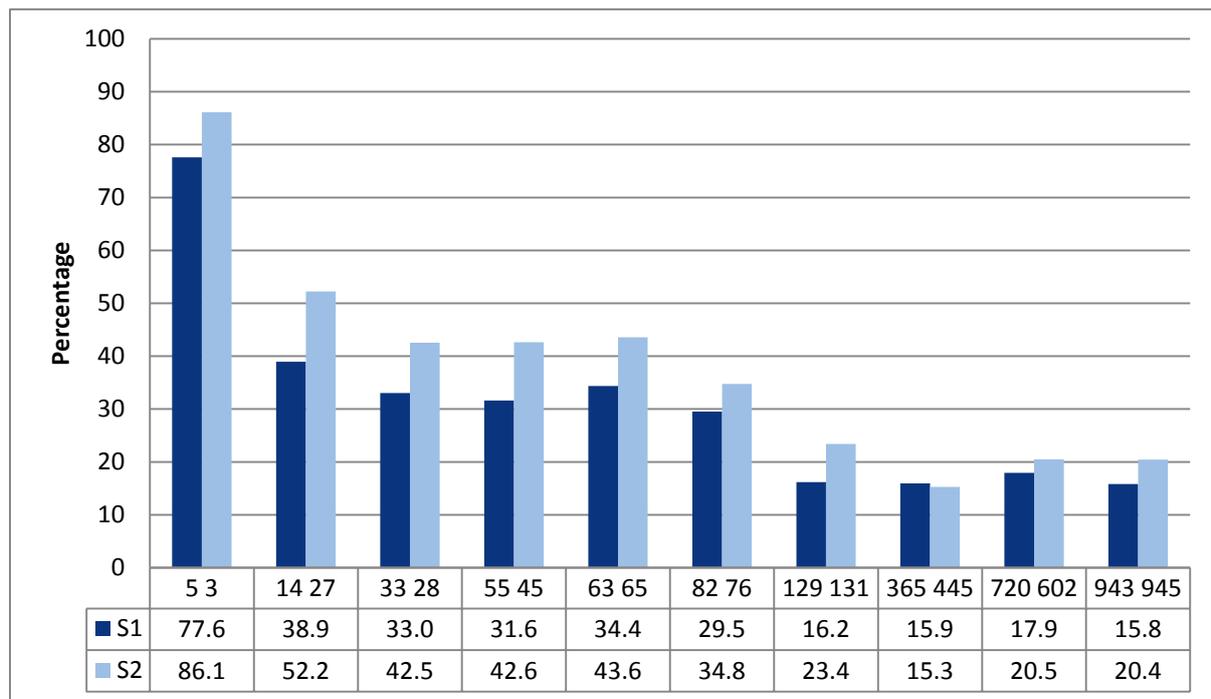


Figure 26: Quantity discrimination – IQTE schools



As with the other subtasks, pupils in the IQTE schools perform better than the pupils from government schools do, and P3 and Stage 2 pupils, respectively, perform better than the P2 and Stage 1 pupils do. Despite these differences, performance is extremely low across the items for this foundational skill. While most IQTE pupils could say which of the numbers 3 and 5 is larger, only 46% of P2 and 65% of P3 pupils were able to do so. However, for the item comparing the numbers 14 and 27 approximately half as many pupils in each level were successful.

Performance drops off noticeably across the items with pupils performing better on pairs of single-digit numbers than on pairs of double- and triple-digit numbers.

Missing number

Mathematics is the study of patterns.

Determining missing numbers is an important mathematical skill that involves pattern recognition and extension. Being able to recognize number patterns, including counting patterns (such as counting by ones, tens, hundreds, fives, and twos, etc., both forward and backward), lays the foundation for other mathematical concepts, including multiplication and division and, later, algebra. Being able to identify patterns more generally aids pupils in problem solving.

Sample missing number items

4	5	6	
15	16		18
30		50	60
	300	400	500

Figure 27 and *Figure 28* illustrate the

performance by item in this subtask for the government school and IQTE pupils, respectively.

Figure 27: Missing number – government schools

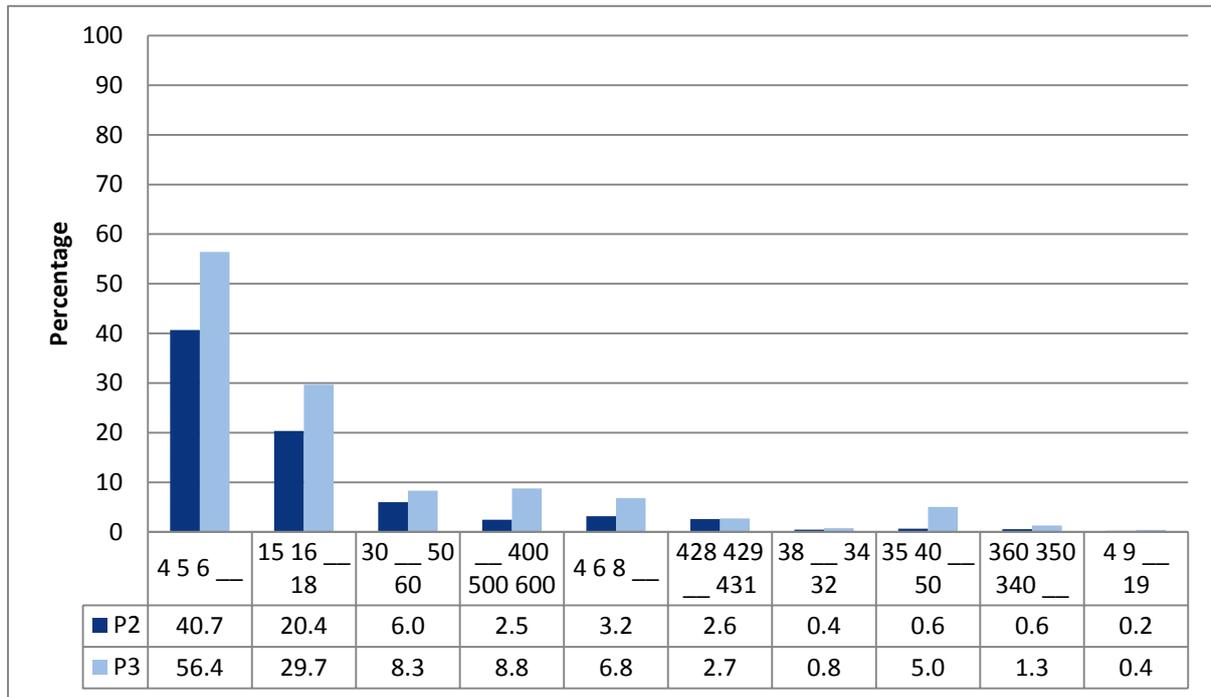
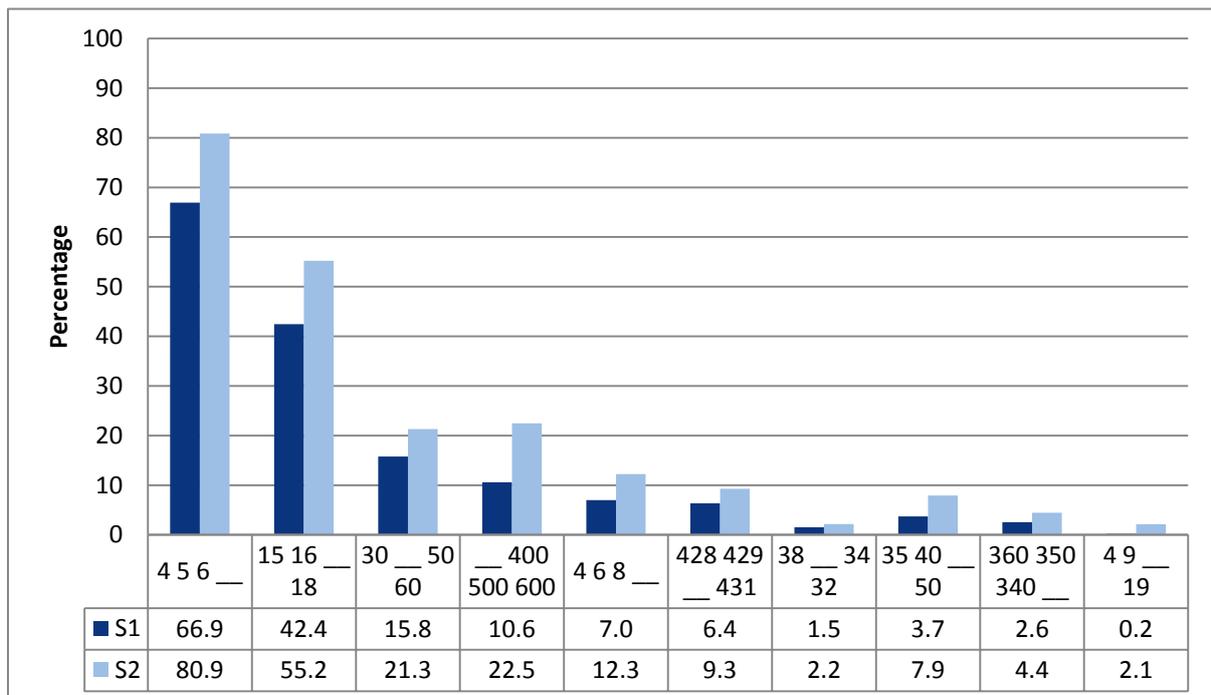


Figure 28: Missing number – IQTE schools



As with the other subtasks, pupils in the IQTE schools perform better than the pupils from government schools do, and P3 and Stage 2 pupils respectively perform better than the P2 and Stage 1 pupils do.

While more than one-half of the IQTE pupils can determine the missing number in the pattern: 4, 5, 6, 7, fewer than one-half of the government school pupils were able to do so. Given this is a single-digit number pattern that we would expect many pre-school children to be able to do (i.e., spontaneously count up to 10), pupils at this level should be able to identify the missing number in this pattern.

Performance on the single-digit item is significantly better than on the other items with a noticeable drop in performance across the items as they become conceptually more demanding. Even the item: 15, 16, 17, 18 was only successfully responded to by one-fifth of the P2 pupils. As the step size in the patterns change first from 1 to 10 to 100 and later to 2 and 5 and as the numbers in the patterns become larger than 20, fewer than 10% of the government school pupils and 20% of the IQTE pupils are able to determine the missing number.

While the P3 and Stage 2 pupils perform slightly better than the P2 and Stage 1 pupils, respectively, on most items, the difference between levels decreases as the items become more cognitively demanding. In other words, the difference in achievement is most noticeable on the easiest items in the subtask, but as the items become more difficult, the difference between the levels become less marked and the benefit of another year of schooling is not evident.

Addition and subtraction (level 2)

The level 2 addition and subtraction subtasks assessed pupils' conceptual understanding of addition and subtraction as well as their ability to apply the procedural knowledge assessed in the corresponding level 1 subtasks to more complex tasks. As noted earlier, pupils were provided with paper and pencil to help them solve these problems. Those 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	
$17 + 2 = \square$	$19 - 2 = \square$
$16 + 8 = \square$	$24 - 8 = \square$
$23 + 15 = \square$	$38 - 15 = \square$
$31 + 17 = \square$	$48 - 17 = \square$
$36 + 27 = \square$	$63 - 27 = \square$

Figure 29 and **Figure 30** illustrate the performance by item on this subtask for the government school and IQTE pupils respectively.

Figure 29: Addition and subtraction L2 – government schools

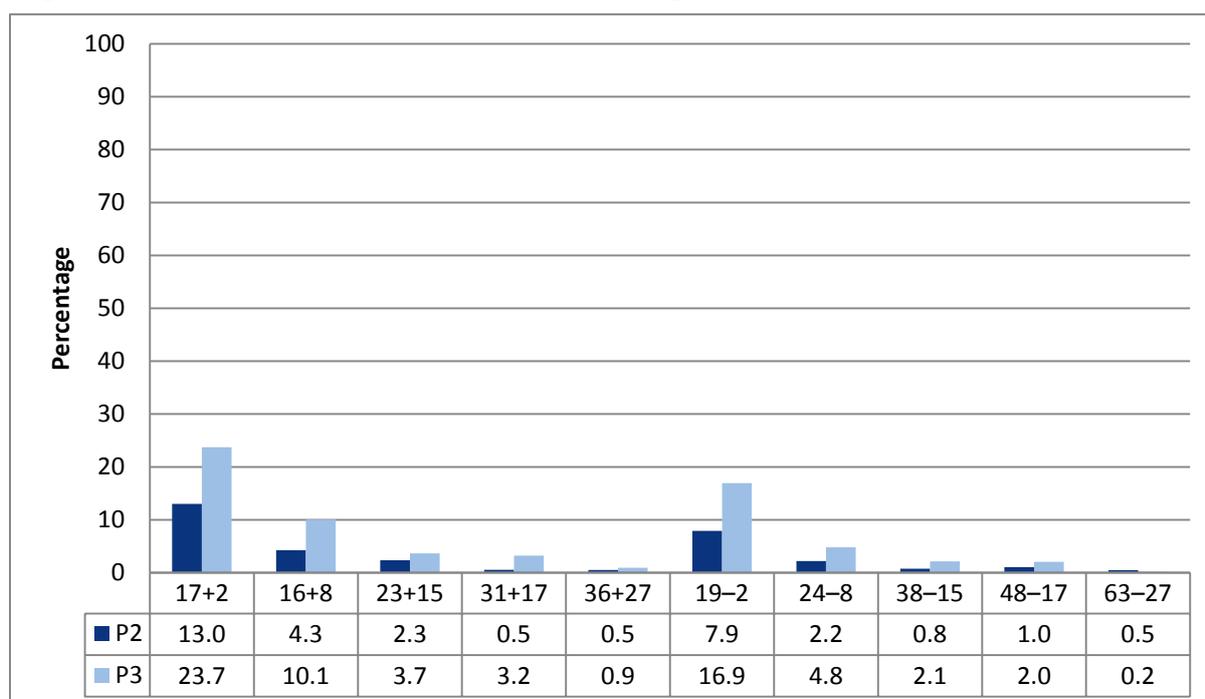
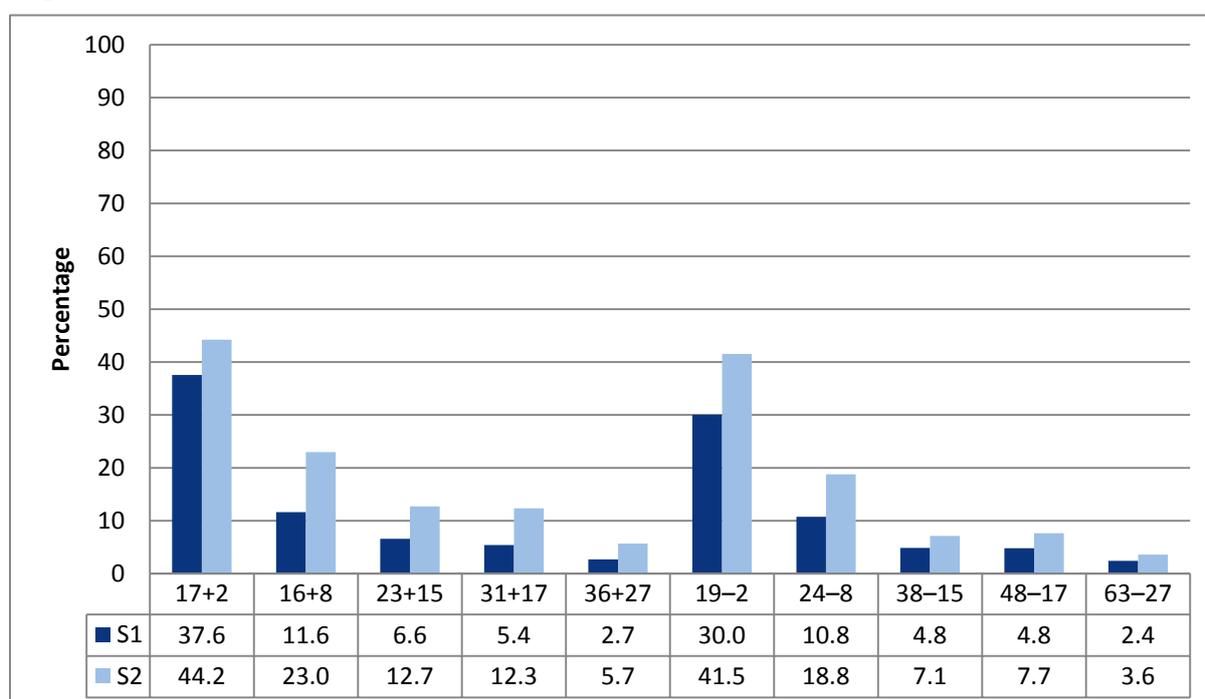


Figure 30: Addition and subtraction L2 – IQTE schools



As already reported, approximately 60% of P2, 50% of P3, 45% of Stage 2, and 25% of Stage 1 pupils had zero scores for these subtasks. Considering both the zero scores for these subtasks and the findings of the addition and subtraction level 1 subtasks, it is of little surprise that the pupils performed very poorly on these subtasks. What is remarkable is that the first two items of each subtask lend themselves to counting on and counting back using fingers, and even on these items the performance is poor.

Table 22 summarizes the correct responses for the pupils who did not score zero on this subtask. The performance of this subset of pupils is encouraging, with more than 90% of these pupils responding correctly to the items $17 + 2 = \square$ and $19 - 2 = \square$. However, the percentage of these pupils providing correct responses drops to less than half for the items $16 + 8 = \square$ and $24 - 8 = \square$. Finally, fewer than 10% of them could provide the correct answer to the item $36 + 27 = \square$.

Table 22. Percentage of correct responses for addition and subtraction level 2 subtasks, excluding pupils with zero scores for the subtasks

	Addition level 2					Subtraction level 2						
	n	17+2	16+8	23+15	31+17	36+27	n	19-2	24-8	38-15	48-17	63-27
P2	47	98%	34%	17%	6%	4%	32	94%	41%	13%	16%	6%
P3	101	91%	48%	18%	16%	6%	75	89%	31%	15%	12%	3%
S1	184	97%	37%	18%	18%	9%	152	93%	38%	19%	16%	6%
S2	225	97%	48%	28%	24%	8%	206	94%	39%	14%	17%	4%

While the percentage of correct responses for some of the items in **Table 22** look reasonably impressive, it must be remembered that the pupils being reported on in this table represent less than 30% of the pupils in the study.

Word problems

Problem solving is central to doing mathematics. Because the focus of the subtask is on assessing the pupils' ability to make a plan and solve a problem, the numerical values involved in the problem are deliberately small (typically single-digit arithmetic), so as to allow for the targeted skills to be assessed without confounding problems with calculation skills that might otherwise impede performance.

Before responding to the items on this subtask, pupils did two practice items to ensure that they understood the instructions of the assessor.

The word problems were deliberately designed to assess different mathematical operations and problem structures:

- Problem 1 has a “change – result unknown” structure and can be summarized by the number sentence: $2 + 4 = \square$.
- Problem 2 has a “combine – part unknown” structure and can be summarized by the number sentence: $3 + \square = 8$.
- Problem 3 has a “compare – part unknown” structure and can be summarized by the number sentence: $4 + \square = 9$.
- Problem 4 has a “change – start unknown” structure and can be summarized by the number sentence: $\square + 3 = 8$.

- Problem 5 has a “sharing” structure and can be summarized by the number sentence: $10 \div 5 = \square$.
- Problem 6 has a “multiplication (grid/array)” structure and can be summarized by the number sentence: $6 \times 2 = \square$.

Figure 31 and *Figure 32* illustrate the performance by item on this subtask for the government school and IQTE pupils respectively.

Figure 31: Word problems – government schools

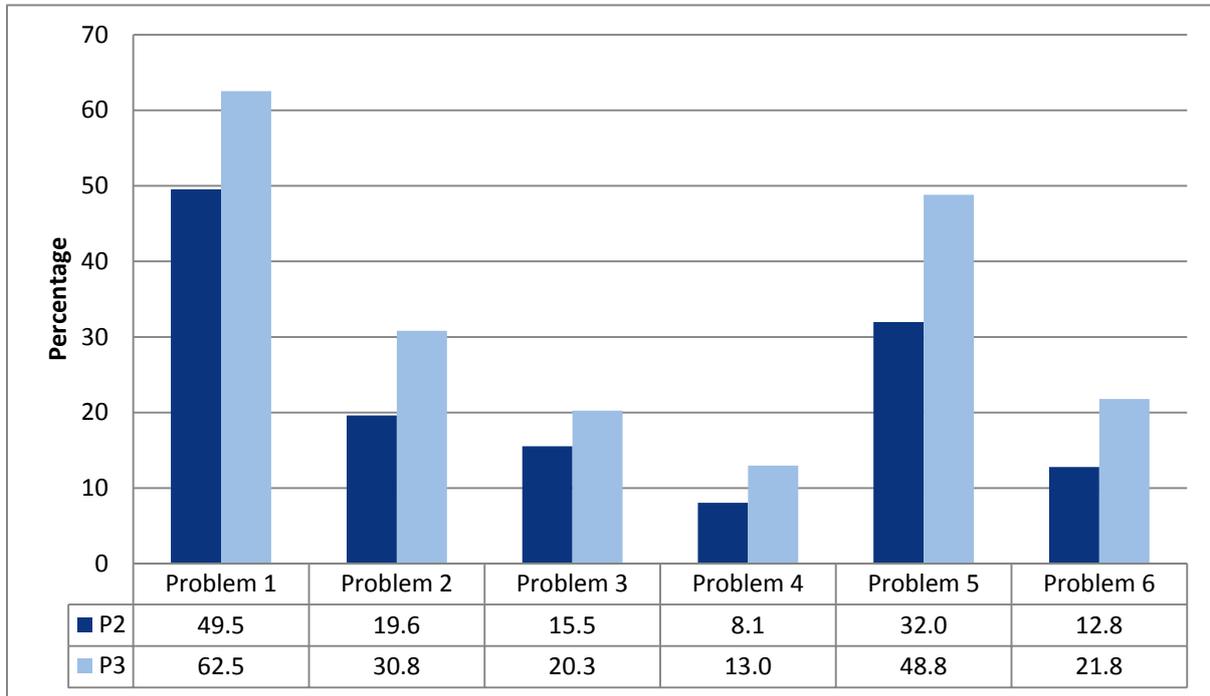
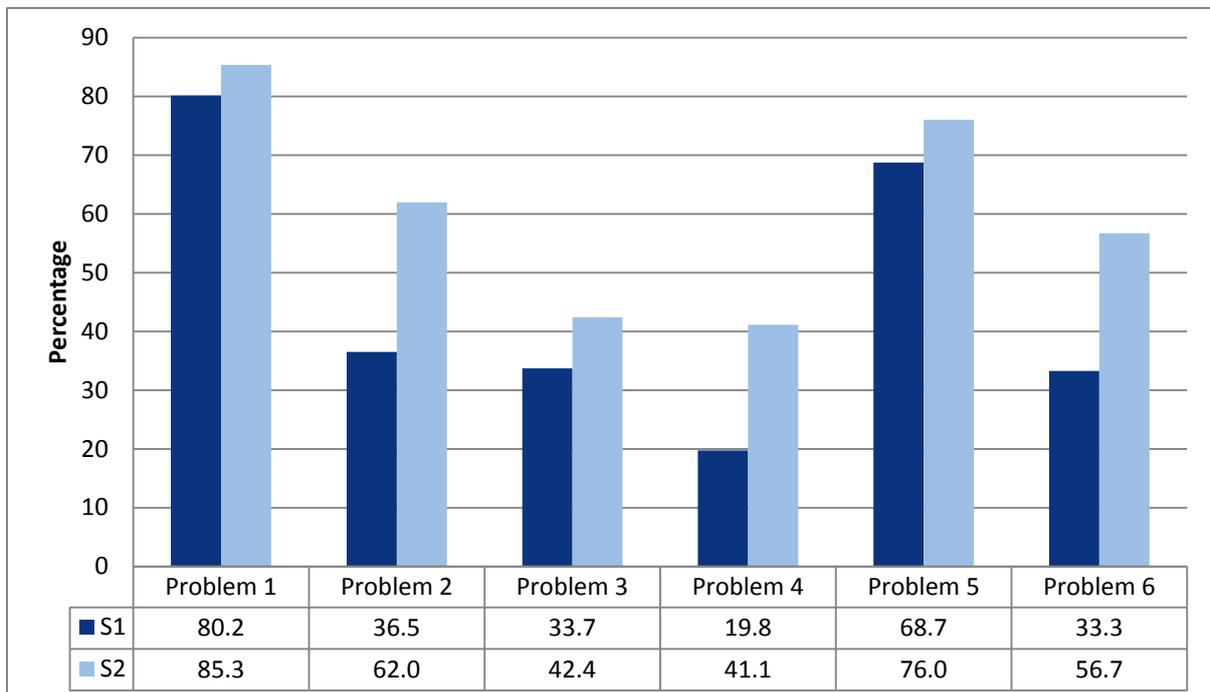


Figure 32: Word problems – IQTE schools



Overall, the pupils performed better on this subtask (when problems were presented orally and not in a formulaic structure) than they did on all of the other subtasks in the EGMA assessment (when problems were presented in written format). For example, pupils performed better on word problem 1, which has the structure $2 + 4 = \square$ than they did on the item $1 + 2 = \square$ in the addition level 1 subtask.

Similarly, the structure of problems 5 and 6 prompt a multiplication and division response without the pupils necessarily being aware of these operations. Even on these conceptually more demanding items, most of the pupils performed better than they did on the majority of the procedural addition and subtraction items in the addition and subtraction level 1 subtasks and the application of basic addition and subtraction facts assessed in the addition and subtraction level 2 subtasks. These observations highlight the ability of children to solve problems in general and numerically based problems in particular. They also speak to the way in which pupils in Bauchi experience mathematics in school. That is, pupils in all likelihood experience school mathematics in abstract ways, as the memorization of facts, rules, and procedures without understanding.

The results on the word problems subtask are encouraging, as they indicate that the children have inherently more potential to perform and understand basic mathematics concepts, particularly when linked to real-life contexts, than the EGMA results overall suggest. If mathematics instruction in school could capitalize on this understanding that pupils bring with them and make explicit linkages to the more abstract mathematics pupils are expected to eventually master, the pupils will be more likely to perform up to their potential.

5.3.3 Children's calculation strategies

The EGMA results were also analyzed vis-à-vis pupils' use of fingers, counters, paper and pencil for certain subtasks. Pupils were informed by the assessors that they were allowed to use paper and pencil for the addition and subtraction level 2 subtasks and allowed to use counters and paper and pencil for the word problem subtasks. It was also made clear to them that they did not have to use these resources if they did not

Word problem items
Two (2) children are walking to school. Another four (4) children join them along the way. How many children walked to school altogether?
There are eight (8) children on a bus. Three (3) are boys. The rest are girls. How many girls are there on the bus?
Nine (9) boys are playing football. Four (4) other boys are playing <i>ligerung</i> . How many boys must be added to those playing <i>ligerung</i> so that there will be same number of boys playing <i>ligerung</i> and football?
There are some children on a bus. Three (3) more children get on the bus. Now there are eight (8) children on the bus. How many children were there on the bus to begin with?
Five (5) children share ten (10) oranges equally between themselves. How many oranges does each child get?
There are six (6) bicycles. Each bicycle is carrying two (2) children. How many children are there on the bicycles altogether?

want/need to. The assessors in turn recorded how the pupils determined the answers to the items for each subtask: in their heads, using fingers and/or counters, or using paper and pencil.¹⁸ Since a pupil may have used one resource for one item and another resource for another item, the assessor checked all of the resources that the pupil used across all of the items.

Table 23 summarizes the use of resources by pupils in determining the solutions for the items of the addition and subtraction level 2 and word problem subtasks. There are a few striking features of the way in which the pupils used the available resources:

- The top-performing pupils appear to be making more conscious decisions over the most effective resource for solving a particular problem, as demonstrated by the more balanced spread of approaches among these pupils—in particular, the significantly larger number of them using more than one method.
- The weaker pupils tend to try to solve the problems by means of mental arithmetic, with 56% using mental arithmetic to solve the addition and subtraction tasks, and 64% using mental arithmetic to solve the word problems. Fewer of the top-performing pupils do so (38% used mental arithmetic to solve the addition and subtraction tasks, and 49% used mental arithmetic to solve the word problems).

Table 23. Pupils’ use of available resources in the addition and subtraction level 2 and word problem subtasks

Subtask	Addition and subtraction level 2				Word problems			
	Head only	Fingers only	Paper and pencil only	More than one method	Head only	Fingers only	Paper and pencil only	More than one method
25% of pupils with highest EGMA scores	38%	21%	1%	40%	49%	22%	1%	27%
Remaining pupils in the EGMA survey	56%	24%	1%	19%	64%	24%	1%	12%

The general trend reflected in the pupils’ use of resources suggests that the top-performing pupils are both more confident in their ability to use appropriate resources and able to decide which are the most appropriate for a particular purpose. In contrast, the remaining pupils try to solve all problems by means of mental arithmetic only. The different strategies used by low- and high-performing pupils likely reflect how they experience mathematics: a subject for which they must memorize facts, rules, and procedures as opposed to a subject for which they need to identify a strategy for solving problems. The above noted, it should also be stressed that even the top-performing pupils should be using the paper and pencil more frequently for the

¹⁸ Pupils were assumed to solve the problem “in their heads” if they were not observed using one of the tangible objects (paper and pencil, or counters).

addition and subtraction subtasks. These results indicate that teachers need to be trained to encourage pupils to work more effectively with paper and pencil.

5.4 Contextual factors that influence learning outcomes

As part of the EGRA/EGMA study, questionnaires were developed and administered to the pupils, their teachers, and the head teachers of their schools. School information, including enrollment, absenteeism, etc., was also recorded for each school.

In order to determine relationships, or correlations between contextual factors and pupil performance, pupils were identified as being “better performing pupils” if they met the following criteria:

- in Hausa reading, obtained a reading comprehension score of 60% or higher; and
- in mathematics, were among the 25% of pupils with the highest EGMA score.¹⁹

Regression analysis was then conducted on the responses of pupils, teachers, and head teachers to identify factors that contributed to the likelihood of a pupil being a better performing pupil on the EGRA and EGMA assessments. Controlling for geography (state, urban versus rural location), school type, gender, class, and socioeconomic status, several factors emerged as correlating positively with performance:

- The role of teaching and learning resources
- The role of teachers
- The role of support in the home.

5.4.1 The role of teaching and learning resources

Having access to learning materials (i.e., Hausa and English reading books and textbooks and exercise books for mathematics) was positively correlated to performance. In other words, pupils who were better performers were more likely to have resources than those who did not. The top performing pupils in EGRA and EGMA were more likely than their peers who did less well on the assessments to report having a reader or textbook.

Furthermore, pupils having access to reading materials in addition to readers (for example, other books and newspapers at school and at home) correlated positively with pupils being better performing pupils on both EGRA and EGMA.

¹⁹ Pupils’ performance on EGRA English was not included in the criteria given the very small number of pupils who performed well on the assessment.

While the analysis revealed a positive correlation between resources and performance, the responses of the teachers and head teachers (summarized earlier in *Section 4*) clearly indicate that they do not believe that they have enough resources with which to teach the subjects. More than 95% of IQTE head teachers and teachers, and approximately 60%–90% of government school head teachers P2 and P3 teachers indicated that their schools did not have enough teaching materials for Hausa, English, and Mathematics in the early grades/stages.

Pupils who performed better on EGRA and EGMA have ...

- Appropriate teaching and learning resources
 - Readers, textbooks, and exercise books
 - Books, newspapers, or other materials to read at home
- Teachers
 - Who come to school
 - Are trained to teach early grade reading and mathematics
 - Are supported by Head Teachers who take an interest in the children's progress
- Support at school and at home
 - Practice reading on a regular basis
 - Have someone at home who reads to them or helps with homework

As noted earlier in *Section 4*, pupils, too, indicated a shortage of learning materials in the classroom. When asked if they had readers for Hausa and English (the latter in the case of P3 and Stage 2 pupils only) and mathematics exercise book and textbooks, most said they did not. However, of the better performing pupils on EGRA, twice as many reported having readers as compared to pupils who performed less well (approximately 60% versus 30%), indicating a clear relationship between access to books and improved reading outcomes.

In the case of EGMA, while almost 55% of the better performing pupils indicated that they had both an exercise book and a textbook and 30% indicated that they had neither, nearly 50% of the remaining pupils indicated that they had no resources at all for mathematics.

The results in Bauchi clearly show that access to teaching and learning resources correlates positively with pupil performance. Yet the survey results also point to a significant shortage of appropriate resources for effective teaching and learning. Addressing this situation needs to be a priority, as discussed later in *Section 6*.

5.4.2 The role of teachers

Having a teacher at school is the first requirement for teaching and learning to take place. Not surprisingly, then, the EGRA/EGMA analysis found that better performing pupils were significantly more likely to report that their Hausa, English, and/or mathematics teacher was present on the day of testing than pupils who did not perform as well.

This is a significant finding given that approximately one-third of P2 and P3 pupils and approximately one-quarter of IQTE pupils reported that their teacher was not at school on the day of the assessment. The teachers who were present and interviewed on the day of the assessment also self-reported high rates of absenteeism. When asked

if they have been absent from school on any day in the week before the survey, 31% of the P2 and P3 government school teachers and 22% of the IQTE teachers in Bauchi (compared to 58% of P2 and P3 government school teachers and 23% of IQTE teachers in Sokoto) responded that they had. These findings correspond to performance levels in each state and school type, with performance in Bauchi state generally better than in Sokoto state, and performance in IQTE schools higher overall than in government primary schools.

While the EGRA/EGMA study did not set out to research or describe absenteeism patterns among teachers, it has revealed that teacher absenteeism is a problem that contributes to poor performance. Although performance in general and the differences in performance across states and school types cannot be attributed to teacher absenteeism alone, getting teachers to class needs to be regarded as another priority in addressing the gaps identified by this study.

While having teachers at school is important, just as important is the ability of those teachers to teach subject content. When asked if they had received specific training to teach early grade reading (Hausa and/or English) and early grade mathematics, few responded that they had. In Bauchi, less than 40% of teachers (government school and IQTE) indicated that they had.

Teachers with specific training in the teaching of early grade reading are well aware of the need for children to have regular structured time and a wide range of materials to read by themselves. The study revealed a strongly positive correlation between the better performing pupils and those who responded positively to the question: “Do you have time to read books in your classroom or school library every day?” This is particularly important given that only approximately half of pupils in both school types reported having time to read at school.

In addition to getting well-trained teachers to school, teachers also need support with classroom instruction. The study found a positive correlation between a pupil’s performance and whether that pupil’s head teacher reported that the pupils’ performance overall at the school in mathematics, English, or Hausa reading was “very good.” This positive correlation confirms the important role that head teachers play in improving learning outcomes.

Teaching early grade reading and mathematics is a not a trivial task. Teachers and head teachers need specific training in how to do so, as discussed further in *Section 6*. If there is to be an improvement in the performance levels identified by this study, teacher training will have to receive priority.

5.4.3 The role of support in the home

Better performing pupils in both EGRA and EGMA were significantly more likely to indicate that they received some educational support at home by providing the following responses:

- “Everyday” to the question: “How often do you read out loud to someone at home?”
- “Yes” to the question: “Does someone at home read to you?”

- “Yes” to the question: “Does someone at home help you with your homework when you need it?”
- “Yes” to the question: “Apart from school books, are there books, newspapers or other materials for you to read at your house?”

These results clearly indicate that pupils who live in a home where their learning is encouraged, stimulated, and supported are better performing pupils. However, as previously noted in **Section 4**, only 7% of P2 and P3 and 19% of IQTE pupils reported reading out loud to someone at home every day. Moreover, only about half of the pupils reported that someone at home reads to them and/or helps them with their homework. While the education system does not have direct control over the home and what happens there, school personnel, SBMCs, LGEA authorities, civil society groups, and other education stakeholders need to convey to parents that they also contribute to the success of their children’s learning and to provide guidelines to parents on what they can do.

6. Conclusion and Recommendations

6.1 Conclusions

The results of the Early Grade Reading and Mathematics Assessments conducted in Bauchi state reveal that P2 and P3 pupils in government schools, and Stage 1 and Stage 2 pupils in IQTE schools, have not acquired a sufficient level of foundational literacy and numeracy skills necessary to be successful in and outside school. The overwhelming majority of early grade pupils are very unlikely to be able to read to learn across the curriculum, and to succeed at higher grade levels given their current achievement levels. (These results are similar to those found in Sokoto state.) Key conclusions from the 2013 EGRA/EGMA are as follows:

- Children’s mastery of foundational reading skills is extremely low in both school types and grades overall, with very few children able to read. In both Hausa and English, the vast majority of pupils assessed—often 70% to 90%—actually scored zero on any given subtask, indicating that few children are acquiring the basic foundational reading skills needed to succeed in school.
- In mathematics, children exhibited similarly low levels of proficiency across subtasks, though they performed slightly better in mathematics than in reading. Performance was extremely low across foundational skills, including number identification and quantity discrimination. Pupils perform better on the more procedural items and less well on the conceptual items that require them to understand and apply their procedural knowledge.
- Pupils in IQTE schools had higher scores in both reading (and Hausa reading in particular) and mathematics, though their overall performance is still low.
- In government schools, pupils’ scores in both school types increased only slightly from grade to grade, indicating that the additional year of school has not produced meaningful learning gains, particularly in reading. Scores

increased more significantly between Stage 1 and Stage 2, though overall learning levels remain low.

- There were no significant differences between P2 and P3 boys' and girls' scores in reading and mathematics in government or IQTE schools in the state. However, significant gender differences in performance exist between boys and girls in IQTE schools, especially in Stage 2.
- Few P3 children demonstrate the English-language proficiency necessary to succeed in P4, where the language of instruction is English. This finding is particularly important because it indicates that children are not likely to be able to read to learn and to succeed in upper grades.
- In EGRA, children performed best in the Hausa listening comprehension subtask, indicating they understand the language and have the potential to read with comprehension—if they receive explicit instruction in key reading skills. Similarly, in EGMA, pupils performed best on the word problems exercise, which is similar to the EGRA listening comprehension task in that it is orally administered. This finding indicates that pupils have the capacity to perform well in (written) mathematics if the subject is taught well and with more of a focus on understanding than on memorization of facts and procedures.

Key findings regarding the learning environment include the following:

- Head teachers, teachers, and pupils all report they lack sufficient teaching and learning resources for early grade reading (such as Hausa readers) and mathematics (textbooks and exercise books).
- Pupils lack both time and support for learning, both at school and at home. Few pupils regularly practice reading at home or school, and few report that a family member reads to them or helps them with homework.
- There is a high rate of absenteeism among both teachers and pupils, decreasing the amount of time children have to learn at school.

Analysis of the EGRA and EGMA results in relation to these aspects of the learning environment identified several factors that are strongly positively correlated to improved learning outcomes. Pupils who performed better on EGRA and EGMA were shown to have the following:

- Access to appropriate learning materials (i.e., Hausa and English reading books and textbooks and exercise books for mathematics)
- Teachers who come to school and are supported by head teachers who are aware of children's progress
- Time every day to read books in their classrooms or school libraries
- A home environment supportive of learning (i.e., a family member who reads to them or helps them with homework).

6.2 Recommendations

While significant investments in education have been made in the state, the EGRA and EGMA 2013 results indicate a critical need to improve reading and mathematics instruction in the early grades. Such an endeavor requires a coordinated,

comprehensive effort among education stakeholders focused on the following key actions:

1. **Improve focus on early grade reading and mathematics in the basic education curriculum and increase the time spent on teaching them in schools.** Children are performing well below what we should expect of them. Head teachers, teachers, pupils, education sector personnel, and parents do not appear to know what is expected of pupils. Currently, neither the basic education curriculum nor the teacher training curriculum contains a sufficient focus on early grade reading and mathematics, and expectations regarding early grade learning are not well known.

A new national basic education curriculum needs to place significantly more emphasis on early grade reading skills in Hausa, appropriate instructional approaches for English-language instruction, and foundational mathematics skills, which are currently lacking in all three curricula. Once curricula focusing on early grade reading and mathematics are developed, they need to be broadly distributed to schools. Importantly, school timetables also need to be adjusted to provide more time for pupils to learn and practice foundational mathematics and reading skills. In particular, time for reading in Hausa every day is essential.

2. **Train teachers to teach foundational reading and mathematics skills.** The EGRA/EGMA results reveal a need to fundamentally change and improve how reading and mathematics are taught. For reading, teachers need to be trained to teach the components of reading, including letter sounds, phonemic awareness, phonics, and reading comprehension strategies, beginning in P1. Emphasis needs to be placed on teaching children to read with fluency and comprehension in Hausa, which will enable them to learn to read more quickly. Regarding English, more attention needs to be placed on instructional approaches that focus on teaching English as a foreign language. Improving children's Hausa reading ability, and improving instruction of English as a subject, will both facilitate English-language acquisition. Mathematics instruction needs to shift from a focus on procedures and memorization to understanding and conceptual learning.

To accomplish this, both pre- and in-service training needs to be revised to ensure that training courses include effective, research-based methodologies for teaching and assessing reading and mathematics. First, pre-service training programs (which should align with the updated basic education curriculum) need to place much more emphasis on preparing teachers to teach early grade reading and mathematics. The National Commission of Colleges of Education (NCCE) in turn needs to improve pre-service teacher training syllabi and support COEs to fundamentally change how teachers are prepared to teach in the early grades. This includes ensuring that teacher trainers and lecturers have the skills necessary to teach courses on early grade reading and mathematics pedagogy. Second, in-service training needs to place much more emphasis on early grade reading and mathematics instruction in order to meet the needs of teachers already in the system. The Universal Basic Education Commission

(UBEC) and others need to develop in-service training programs that focus on early grade reading and mathematics and specific pedagogical practices for teaching these subjects.

3. **Clarify who is responsible for teaching early grade reading and train more teachers to teach reading.** Several years ago, the Nigerian basic education curriculum policy underwent changes that mandated teachers to teach across the curriculum in primary schools. However, these changes have yet to be instituted on a broad scale, meaning that many teachers are still subject specialists and few enroll in the Primary Education Studies (PES) track at the colleges of education. Since the teachers who teach early grade reading are typically trained in the Hausa language departments of the COEs, their training does not currently focus on the teaching of early grade reading. A national-level consensus needs to be made regarding who is responsible for teaching reading before change can be effected at the school level—and this needs to be communicated and implemented immediately. Finally, more teachers need to be trained to teach reading skills so that reading becomes a focus throughout the curriculum and becomes a skill that children develop across subjects.
4. **Develop reading and mathematics performance standards and monitor early grade reading and mathematics outcomes at all levels—from classroom to state.** Everyone in the education system—from senior-level officials to head teachers and teachers to pupils and their parents—needs to know what children should be learning and whether they are making progress to achieving learning goals. Currently, the Hausa, English, and mathematics curricula do not specify clear performance standards for the early grades, particularly for reading. To fill this gap, standards and benchmarks for each grade should be established so that teachers, parents, education authorities, and pupils know if children are acquiring foundational skills and performing at the level that is expected of them. As part of a comprehensive training in reading and mathematics instruction, teachers also need to be trained to conduct continuous assessment of children’s reading and mathematics abilities and, importantly, how to use the results to effectively inform their instruction. Teachers also need to be able to track learners’ progress against established performance benchmarks. Additionally, clear processes need to be put in place for communicating learning outcomes to pupils, parents, head teachers, and School-based Management Committees (SBMCs). It is also recommended that statewide assessments, like the one on which this report is based, should be conducted every 3 years to identify whether learning outcomes are improving.
5. **Improve content and increase availability of early grade reading and mathematics materials.** As indicated in the report, very few pupils and teachers reported sufficient availability of Hausa, English, and mathematics resources. Without appropriate resources, teachers cannot teach, and children cannot practice reading and doing mathematics. Therefore, significant efforts need to be made to ensure that all teachers have appropriate materials to help them teach these subjects, and children need to have effective learning

materials appropriate for their level. While some reading books exist in Hausa, there is an acute need to increase the amount of appropriate text available in primary schools by bringing together publishers, authors, communities, and others who can contribute ideas and develop stories. Fortunately, the Hausa language enjoys a long and rich tradition as a written language that can be harnessed to develop new and appropriate resources for children. Furthermore, teachers must be provided with appropriate instructional materials in Hausa, English, and mathematics to ensure that they have the resources they need in the classroom to guide their teaching. Education authorities need to prioritize materials provision by assigning clear responsibility for materials development and by allocating (and releasing) the necessary funds to put books in the hands of all children.

6. **Build the technical capacity of the education sector personnel around early grade reading and mathematics.** Many stakeholders who have helped implement the EGRA and EGMA have expressed a commitment to improving the situation, but there is a need to increase the knowledge and skills of personnel throughout the education sector regarding early grade reading and mathematics. This includes ensuring that results are disseminated and training provided to LGEA personnel, school inspectors, teacher training support officers, head teachers, and others who are responsible for ensuring that learning takes place in schools. For example, inspectors, head teachers, and school support officers need to be trained to conduct classroom-based monitoring of learning outcomes and specific steps they can take to help teachers improve reading and mathematics instruction in their classrooms.
7. **Help parents build children’s early reading and mathematics skills at home.** Parents can do many activities to support children’s reading and mathematics— even if they are not literate themselves. First, parents can ask their children to read aloud to them every day, ask them questions about what they have read, and praise them for their efforts. Literate parents can read books, newspapers, signs, food packaging, and other text to young children and can help them with their homework. All parents can talk, sing, and tell stories to children to build their knowledge of sounds and words, increase their vocabulary, and improve their abilities to express themselves. Parents can help build children’s basic mathematics and problem-solving skills through daily activities such as counting objects in the market and comparing quantities. Local education authorities, PTAs, SBMCs, and civil society groups should share these ideas with parents and encourage them to identify additional ways they can support their children’s early grade learning every day.
8. **Prioritize early grade reading and mathematics in school and state plans and budgets.** While the education sector faces competing demands for resources, funds need to be prioritized for items that are directly related to learning outcomes. In particular, this includes teaching and learning materials specifically designed for the early grades and for teacher training focused on teaching foundational reading and numeracy skills. Furthermore, funds for these priority areas need to be released on time and allocated as intended.

At the school level, SBMCs can include in their school improvement plans actions that are specifically related to early grade reading and mathematics. SBMCs can work with head teachers, teachers, and parents to identify solutions to the problem of teacher and pupil absenteeism and work to ensure that resources are made available. School communities can also organize literacy and mathematics fairs to promote learning and engage parents in school activities.

9. Conduct follow-up discussion and clarify issues regarding IQTE schools.

A final recommendation identified as a result of the EGRA/EGMA survey was a need to better understand and document the IQTE school system. The EGRA/EGMA results indicated that children in IQTE schools perform better than their peers at traditional government schools. The reason for the disparity in performance, however, is not entirely clear. Discussions regarding IQTE schools that took place throughout the process of the EGRA/EGMA 2013 implementation exercise and results dissemination activities regarding IQTE schools, their purpose, their pupil population, their curriculum, and how they are identified and supported by SUBEB brought to light the fact that much is not known about the IQTE schools, and consensus on many of these issues is still needed. Further discussion and a follow-up qualitative study are recommended to better understand what is happening in these schools and to make recommendations that will improve outcomes.

10. Identify and assign responsibilities, and provide sufficient resources, to implement changes needed to improve reading and mathematics. The recommendations above can only be accomplished if roles and responsibilities are clearly assigned to specific institutions and individuals within the education sector and at all levels. This includes the important tasks of developing curriculum, performance standards, and teaching and learning materials; designing and implementing in-service and pre-service teacher training programs; providing school-based support to teachers; and conducting assessment and monitoring. In some cases, existing institutional and individual responsibilities may need to be modified and/or expanded to include these functions. Concurrently, sufficient time and resources need to be allocated for the responsible departments and people to carry them out. Finally, budgets need to be focused on resources and activities that actually improve learning outcomes, and need to include a sufficient level of resources to match the needs that the EGRA/EGMA survey has identified.

When children have teachers who know how to effectively teach reading and mathematics, resources with which to learn, and sufficient opportunities to practice skills at school and at home, they can and will acquire foundational skills necessary to achieve throughout their academic career and in their work outside of school as well. Given the current extremely low levels of achievement in Bauchi, the colleges of education, SUBEB, and all governmental and nongovernmental partners need to take immediate action to implement the changes necessary to improve children's learning outcomes.

Annex 1: EGRA in Hausa

HAUSA Early Grade Reading Assessment: Pupil Response Form Administrator Instructions and Protocol – MAY 2013

General instructions

Establish a playful and relaxed rapport with the child through a short conversation (see example topics below). The child should perceive the assessment almost as a game to be enjoyed rather than a test. Use this time to identify in what language the child is most comfortable communicating. Read aloud slowly and clearly ONLY the sections in boxes.

Ina kwana? Sunana _____ kuma ina zaune a _____. Bari in fara da faɗa miki/maka ko ni wace ce/wane ne [misali, iyali, firamaren da aka yi, wasanni, da ire-iren haka]. To, yanzu ke/kai kuma ki/ka ba ni naki/naka labari in ji, ko?

Verbal Consent: Read the text in the box clearly to the child:

- Bari in faɗa maki/maka dalilin da ya sa na zo nan a yau. Ni ina aiki ne tare da ma'aikatar ba da ilimi, kuma muna son mu ga yadda yara suke koyon karatu da kuma yin lissafi. Taimakonki/ka muke so game da wannan aikin.
- An tsamo sunanki/ka ne domin yin wannan wasar karatu da kuma lissafi.
- Ta hanyar amfani da wannan kwamfuta, zan ga lokacin da zai dauke ki/ka karantawa da kuma yin aikin lissafi.
- Sam wannan ba jarrabawa ba ce, kuma ba wanda zai faɗi in an yi.
- Haka ma, zan yi miki/ maka wasu 'yan tambayoyi game da makarantarku, da kuma gidanku.
- Sam, Sam, Sam, ba zan rubuta suna ba, don haka ba wanda zai san cewa amsoshinki/ka ne.
- Idan kuma muka fara, kika/ka ji ba ki/ka son amsa wata tambaya, shi ma wannan ba komai, sai mu wuce ta.
- Akwai tambaya? Kin/ka fahimta, mu fara?

Check box if verbal consent is obtained:

 YES

(If verbal consent is not obtained, thank the child and move on to the next child, using this same form)

A. Date of assessment: (Example: 11 May 2013 = 11/05/2013)	Date: _____ Month: _____ Year: _____	J. Class:	<input type="checkbox"/> P2 <input type="checkbox"/> P3 <input type="checkbox"/> Stage 1 (IQTE) <input type="checkbox"/> Stage 2 (IQTE)
B. State:		K. School Type	<input type="checkbox"/> Government <input type="checkbox"/> Government-Islamiyya <input type="checkbox"/> IQTE
C. LGEA name:		L. Section:	
D. LGEA code:		M. Pupil number:	
E. Administrator name:		N. Pupil birth date:	Mo _____ Yr _____
F. Administrator code:		O. Gender	<input type="checkbox"/> Boy <input type="checkbox"/> Girl
G. School name:			
H. School EMIS code:		P: Start Time	_____ : _____ <input type="checkbox"/> AM [Tick one] <input type="checkbox"/> PM
I. School shift:	<input type="checkbox"/> = Full Day <input type="checkbox"/> = Morning <input type="checkbox"/> = Afternoon		



Task 1. LETTER SOUND IDENTIFICATION – HAUSA	Page 1	⌚ 60 seconds																																																																																																																									
<p>☛ Ga shafi cike da bakafɛ na Hausa. Sai ki/ka fada mini SAUTIN bakafen da duk kike/kake iya ganewa – ba wai sunansu ba, a’ a, yadda ake fadinsu dai.</p> <p>Misali, sautin wannan baki [nuna “M”] shi ne /m/.</p> <p>To, bisimilla: fada mini sautin wannan baki [nuna “D”]: Idan yarinya ta/yaro ya gano amsar, sai ki/ka ce: Da kyau, sautin wannan baki /d/. Idan yarinya ba ta/yaro bai gano amsar ba, sai ki/ka ce: sautin wannan baki /d/.</p> <p>To, bari mu gwada wani bakin: fada mini sautin wannan baki [nuna “a”]: Idan yarinya ta/yaro ya gano amsar, sai ki/ka ce: Da kyau, sautin wannan baki /a/. Idan yarinya/yaro bai gano amsar ba, sai ki/ka ce: sautin wannan baki /a/.</p> <p>In na ce “Fara”, fara daga nan [nuna baki na farko] ki/ka ci gaba a hakan [nuna]. Nuna mini ko wane baki ki/ka kuma gaya mini sautin bakin ki/ka kuma buɗa murya. Fadi sautin bakafen da hanzari, da hankali, ki/ka kuma daga murya. Idan kin/ka zo a kan bakin da ba ki/ka sani ba, sai ki/ka je a kan baki na gaba. Aza yatsa a kan bakin farko. Kin/ka shirya? To bisimilla, fara.</p>		<p>Start the timer when the child reads the first letter.</p> <p>☞ If a child hesitates or stops on a letter for <u>3 SECONDS</u>, say “ci gaba.”</p> <p>☞ When the timer reaches 0, say “stop.”</p> <p>☞ If the child does not provide a single correct response on the first line (10 items), say “Thank you!”, discontinue this subtask, check the box at the bottom, and go on to the next subtask.</p>																																																																																																																									
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Da kyau, sannu da ƙofari! To, mu ci gaba zuwa sabon sashe.

Task 2. NON-WORD READING – HAUSA	Page 2	60 seconds																																																																		
<p>☛ Ga wasu ƙagaggun kalmomi na Hausa. Ina son ki /ka karanta gwargwadon wafanda kike/kake iya karantawa. Kada ki/ka bi baki bayan baki; a’ a, ki/ka karanta su hade. Misali, wannan ƙagaggiyar kalma, ana faɗinta, a ce: “mit”.</p> <p>To, mu gwada: Sai ki/ka karanta kalmar [nuna kalma ta gaba: uz]. Idan yarinya ta/yaro ya faɗi “uz” daidai, sai ki/ka ce]: “Da kyau: “uz” Idan yarinya ba ta/yaro bai faɗi “uz” daidai ba, sai ki/ka ce]: Ana faɗin wannan ƙagaggiyar kalma kamar haka: “uz.”</p> <p>To, yanzu gwada wata kalmar ta daban: Sai ki/ka karanta kalmar [nuna kalma ta gaba: “nu”]. Idan yarinya ta/yaro ya faɗi “nu” daidai, sai ki/ka ce: “Da kyau: “nu.” Idan yarinya ba ta/yaro bai faɗi “nu” daidai ba, sai ki/ka ce: Ana faɗin wannan ƙagaggiyar kalma, a ce: “nu.”</p> <p>Idan na ce “fara”, fara daga nan [nuna baki na farko] ka ci gaba a hakan [nuna]. Nuna mini ko wace kalma, ki/ka faɗe ta ki/ka kuma buɗa murya. Karanta da hanzari kuma a hankali. Idan kin/ka zo a kan kalmar da ba ki/ka sani ba, sai ki/ka je a kan kalma ta gaba. Aza yatsa a kan kalmar farko. Kin/ka shirya? To bisimilla, fara.</p>		<p>Start the timer when the child reads the first word.</p> <p>☞ If a child hesitates or stops on a letter for <u>3 SECONDS</u>, say “ci gaba.”</p> <p>☞ When the timer reaches 0, say “stop.”</p> <p>☞ If the child does not provide a single correct response on the first line (5 items), say “Thank you!”, discontinue this subtask, check the box at the bottom, and go on to the next subtask.</p>																																																																		
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Da kyau, sannu da ƙoƙari! To, mu ci gaba zuwa sabon sashe.

Task 3a. ORAL READING PASSAGE – HAUSA

Page 3

60 seconds

☞ Yawwa, ga wani gajeren labari. Ina son ki/ka karanta shi a bayyane, da hanzari kuma a hankali. Idan kin/ka gama karantawa, zan yi miki/maka wasu 'yan tambayoyi game da abin da kika/ka karanta. Idan na ce ki/ka "Fara," sai ki/ka karanta labarin gwargwadon iyawarki/ka. Idan kika/ka zo ga kalmar da ba ki/ka sani ba, sai ki/ka je akan kalma ta gaba. Aza yatsarki/ka akan kalma ta farko. Kin/ka shirya? To, bisimilla, ki/ka fara.

Start the timer when the child reads the first word.

- ☞ (/) Mark any incorrect words with a slash
 (Ø) Circle self-corrections if you already marked the word incorrect.
 () Mark the final word read with a bracket

Ask the child only the questions related to the text read. A child must read all the text that corresponds with a given question. If the child does not provide a response to a question after 10 seconds, mark "no response" and continue to the next question. Do not repeat the question.

Yanzu zan yi miki /maka wasu 'yan tambayoyi game da labarin da kika/ka karanta. Ki/ka yi kofari ki/ka ba da amsa gwargwadon iyawarka/ki. Kina/kana iya ba da amsar tambayoyin ta kowane yare ki/ka ke so.

After the child is finished reading, REMOVE the passage from in front of the child.

☞ When the timer reaches 0, say "stop."

☞ If a child hesitates or stops on a word for **3 SECONDS**, say "ci gaba."

☞ If you have marked as incorrect all of the answers on the first line with no self-corrections.

If a child says "I don't know," mark as incorrect.

		Questions [Answers]	Correct	Incorrect	No Response
Adamu da abokinsa Bala sukan tafi gona <u>kullum</u> .	8	1. Ina Adamu da abokinsa sukan tafi kullum? [sukan tafi gona kullum]			
Wata rana sai Adamu ya ga mangwaro ja a kan <u>bishiya</u> .	19	2. Me Adamu ya gani akan bishiya? [Ya ga mangoro; mangwaro ja; nunannen mangwaro]			
Adamu ya dauki doguwar sanda domin ya kado mangwaro. Tsawon sandar bai isa <u>ba</u> .	33	3. Me ya hana Adamu kado mangwaro? [sabo da tsawon sandar bai isa ba]			
Ya ce wa abokinsa ya daga shi sama ya kado <u>mangwaro</u> .	44	4. Yaya Adamu ya sami mangwaron? [abokinsa ya daga shi sama don ya kai gare shi]			
Ya kado mangwaro. Adamu da Bala suka raba mangwaro suka <u>sha</u> .	55	5. Yaya Adamu da abokinsa, suka ji a farshen labarin? [sun ji daɗɗin shan mangwaro]			

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

☞ Exercise discontinued because the child had no correct answers in the first line

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



Task 4. LISTENING COMPREHENSION – HAUSA	📖 X	🕒 X																								
<p>👂 Zan karanta miki/maka wani dan gajeren labari SAU DAYA, sannan zan yi miki/maka wasu 'yan tambayoyi. Sai ki/ka kasa kunne ki/ka saurara, kuma ki/ka yi kofari ki/ka amsa tambayoyi gwargwadon iyawarki/ka. Kina/kana iya amsa tambaya ta kowane yare kike/kake so. To, bisimilla.</p>		Remove the pupil stimuli booklet from the child's view.																								
<p>Dije yarinya ce da ke taimaka wa mahaifiyarta da aikace-aikacen girki. Wata rana sai Dije ta yanke a hannunta, ta yi tsalle ta yi kara. Mahaifiyarta ta zo ta daure raunin, sannan ta yi mata gargadi da ta riƙa kula. Tun daga wannan ranar Dije ta bar wasa da wuƙa.</p>		Do not allow the child to look at the passage or the questions. If a child says "I don't know," mark as incorrect.																								
<table border="1"> <thead> <tr> <th></th> <th>Correct</th> <th>Incorrect</th> <th>No response</th> </tr> </thead> <tbody> <tr> <td>Me Dije take taimaka wa mahaifiyarta da shi? [aikace-aikacen girki]</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Me ya faru da Dije lokacin da take aiki a kicin ? [ta yanke hannunta]</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Me mahaifiyarta ta yi mata? [ta daure mata; ta ba ta shawara]</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Don me mahaifiyar Dije ta shawarce ta da ta riƙa kula? [kar ta sake yankewa]</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ko me ya sa Dije yanzu take kula in tana aiki da wuƙa? [sabo da shawarar mahaifiyarta; ba ta son ta sake yankewa]</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Correct	Incorrect	No response	Me Dije take taimaka wa mahaifiyarta da shi? [aikace-aikacen girki]				Me ya faru da Dije lokacin da take aiki a kicin ? [ta yanke hannunta]				Me mahaifiyarta ta yi mata? [ta daure mata; ta ba ta shawara]				Don me mahaifiyar Dije ta shawarce ta da ta riƙa kula? [kar ta sake yankewa]				Ko me ya sa Dije yanzu take kula in tana aiki da wuƙa? [sabo da shawarar mahaifiyarta; ba ta son ta sake yankewa]					
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Da kyau, sannu da kofari! To, mu ci gaba zuwa sabon sashe.



Annex 2: EGRA in English

ENGLISH Early Grade Reading Assessment: Pupil Response Form Administrator Instructions and Protocol – MAY 2013

General instructions

Establish a playful and relaxed rapport with the child through a short conversation (see example topics below). The child should perceive the assessment almost as a game to be enjoyed rather than a test. Use this time to identify in what language the child is most comfortable communicating. Read aloud slowly and clearly ONLY the sections in boxes.

Ina kwana? Sunana _____ kuma ina zaune a _____. Bari in fara da faɗa miki/maka ko ni wace ce/wane ne [misali, iyali, firamaren da aka yi, wasanni, da ire-iren haka]. To, yanzu ke/kai kuma ki/ka ba ni naki/naka labari in ji, ko?

Verbal Consent: Read the text in the box clearly to the child:

- Bari in faɗa miki/maka dalilin da ya sa na zo nan a yau. Ni ina aiki ne tare da ma'aikatar ba da ilimi, kuma muna son mu ga yadda yara suke koyon karatu da kuma yin lissafi. Taimakonki/ka muke so game da wannan aikin.
- An tsamo sunanki/ka ne domin yin wannan wasar karatu da kuma lissafi.
- Ta hanyar amfani da wannan kwamfuta, zan ga lokacin da zai dauke ki/ka karantawa da kuma yin aikin lissafi.
- Sam wannan ba jarrabawa ba ce, kuma ba wanda zai faɗi in an yi.
- Haka ma, zan yi miki/ maka wasu 'yan tambayoyi game da makarantarku, da kuma gidanku.
- Sam, Sam, Sam, ba zan rubuta suna ba, don haka ba wanda zai san cewa amsoshinki/ka ne.
- Idan kuma muka fara, kika/ka ji ba ki/ka son amsa wata tambaya, shi ma wannan ba komai, sai mu wuce ta.
- Akwai tambaya? Kin/ka fahimta, mu fara?

Check box if verbal consent is obtained: YES

(If verbal consent is not obtained, thank the child and move on to the next child, using this same form)

A. Date of assessment: (Example: 11 May 2013 = 11/05/2013)	Date: Month: _____ Year: _____	J. Class:	<input type="checkbox"/> P2 <input type="checkbox"/> P3 <input type="checkbox"/> Stage 1 (IQTE) <input type="checkbox"/> Stage 2 (IQTE)
B. State:		K. School Type	<input type="checkbox"/> Government <input type="checkbox"/> Government-Islamiyya <input type="checkbox"/> IQTE
C. LGEA name:		L. Section:	
D. LGEA code:		M. Pupil number:	
E. Administrator name:		N. Pupil birth date:	Mo_____ Yr_____
F. Administrator code:		O. Gender	<input type="checkbox"/> Boy <input type="checkbox"/> Girl
G: School name:			
H: School EMIS code:		P: Start Time	_____ : _____ <input type="checkbox"/> AM [Tick one] <input type="checkbox"/> PM
I. School shift:	<input type="checkbox"/> = Full Day <input type="checkbox"/> = Morning <input type="checkbox"/> = Afternoon		

Task 1. LETTER SOUND IDENTIFICATION – ENGLISH

Page 1

60 seconds

☛ Ga shafi cike da bakafake na Ingilishi. Sai ki/ka fada mini SAUTIN bakafen da duk kike/kake iya ganewa – ba wai sunansu ba, a’ a, yadda ake fadinsu dai.

Misali, sautin wannan baki [nuna “A”] shi ne /aa/.

To, bisimilla: fada mini sautin wannan baki [nuna “T”]:

Idan yarinya/yaro ta/ya gano amsar, sai ki/ka ce: **Da kyau, sautin wannan baki /t/.**

Idan yarinya/yaro ba ta/bai gano amsar ba, sai ki/ka ce: **sautin wannan baki /t/.**

To, bari mu gwada wani bakin: fada mini sautin wannan baki [nuna “b”]:

Idan yarinya/yaro ta/ya gano amsar, sai ki/ka ce: **Da kyau, sautin wannan baki /b/.**

Idan yarinya/yaro ba ta/bai gano amsar ba, sai ki/ka ce: **sautin wannan baki /b/.**

In nace “Fara”, fara daga nan [nuna baki na farko] ki/ka ci gaba a hakan [nuna]. Nuna mini ko wane baki ki/ka kuma gaya mini sautin bakin ki/ka kuma bud’a murya. Fadi sautin bakafen da hanzari, da hankali, ki/ka kuma daga murya. Idan kin/ka zo a kan bakin da ba ki/ka sani ba, sai ki/ka je a kan baki na gaba. Aza yatsa a kan bakin farko. Kin/ka shirya? To bisimilla, fara.

☒ (/) Mark any incorrect letters with a slash

(Ø) Circle self-corrections if you already marked the letter incorrect

() Mark the final letter read with a bracket

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

Start the timer when the child reads the first letter.

☞ If a child hesitates or stops on a letter for 3 SECONDS, point to the next letter and say “ci gaba.”

☞ When the timer reaches 0, say “stop.”

☞ If the child does not provide a single correct response on the first line (10 items), say “Thank you!”, discontinue this subtask, check the box at the bottom, and go on to the next subtask.

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

☒ Exercise discontinued because the child had no correct answers in the first line

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

Task 2. NON-WORD READING - ENGLISH	Page 2	60 seconds																																																																												
<p>☛ Ga wasu kagaggun kalmomi na Ingilishi. Ina son ki /ka karanta gwargwadon waƙanda kike/kake iya karantawa. Kada ki/ka bi baƙi bayan baƙi; a’ a, ki/ka karanta su haƙe.</p> <p>Misali, wannan kagaggiyar kalma, ana faɗinta, a ce: “ut”.</p> <p>To, mu gwada: Sai ki/ka karanta kalmar [nuna kalma ta gaba: “dif”]. Idan ɗaliba/ɗalibi ta/ya faɗi “dif” daidai, sai ki/ka ce]: “Da kyau: “dif.” Idan ɗaliba/ɗalibi ba ta/bai faɗi “dif” daidai ba, sai ki/ka ce]: Ana faɗin wannan kagaggiyar kalma kamar haka: “dif.”</p> <p>To, yanzu gwada wata kalmar ta daban: Sai ki/ka karanta kalmar [nuna kalma ta gaba: “mab”]. Idan ɗaliba/ɗalibi ta/ya faɗi “mab” daidai, sai ki/ka ce: “Da kyau: “mab.” Idan ba ta/bai faɗi “mab” daidai ba, sai ki/ka ce: Ana faɗin wannan kagaggiyar kalma, a ce: “mab.”</p> <p>Idan na ce “fara”, fara daga nan [nuna baƙi na farko] ki/ka ci gaba a hakan [nuna]. Nuna mini ko wace kalma, ki/ka faɗe ta ki/ka kuma buɗa murya. Karanta da hanzari kuma a hankali. Idan kin/ka zo a kan kalmar da ba ki/ka sani ba, sai ki/ka je a kan kalma ta gaba. Aza yatsa a kan kalmar farko. Kin/ka shirya? To bisimilla, fara.</p>	<p>Start the timer when the child reads the first word.</p> <p>☞ If a child hesitates or stops on a letter for <u>3 SECONDS</u>, point to the next word and say “ci gaba.”</p> <p>☞ When the timer reaches 0, say “stop.”</p> <p>☞ If the child does not provide a single correct response on the first line (5 items), say “Thank you!”, discontinue this subtask, check the box at the bottom, and go on to the next subtask.</p>																																																																													
<p>☞ (/) Mark any incorrect words with a slash (∅) Circle self-corrections if you already marked the word incorrect. (]) Mark the final word read with a bracket</p> <p>Misalai: ut dif mab</p> <table border="1" data-bbox="81 1153 1273 1825"> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th></th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>nad</td> <td>lus</td> <td>dit</td> <td>nep</td> <td>gak</td> <td>(5)</td> </tr> <tr> <td>_____</td> <td>hep</td> <td>jod</td> <td>kib</td> <td>lek</td> <td>tob</td> <td>(10)</td> </tr> <tr> <td>_____</td> <td>nom</td> <td>rop</td> <td>hig</td> <td>reg</td> <td>lat</td> <td>(15)</td> </tr> <tr> <td>_____</td> <td>tup</td> <td>ral</td> <td>wix</td> <td>leb</td> <td>fut</td> <td>(20)</td> </tr> <tr> <td>_____</td> <td>lut</td> <td>yod</td> <td>sib</td> <td>cag</td> <td>sig</td> <td>(25)</td> </tr> <tr> <td>_____</td> <td>en</td> <td>mon</td> <td>nup</td> <td>sen</td> <td>kad</td> <td>(30)</td> </tr> <tr> <td>_____</td> <td>mog</td> <td>lew</td> <td>paf</td> <td>sal</td> <td>zuv</td> <td>(35)</td> </tr> <tr> <td>_____</td> <td>ved</td> <td>kag</td> <td>vun</td> <td>riz</td> <td>gof</td> <td>(40)</td> </tr> <tr> <td>_____</td> <td>maz</td> <td>kol</td> <td>ver</td> <td>et</td> <td>beb</td> <td>(45)</td> </tr> <tr> <td>_____</td> <td>ped</td> <td>lef</td> <td>yag</td> <td>gim</td> <td>dov</td> <td>(50)</td> </tr> </tbody> </table>		1	2	3	4	5		_____	nad	lus	dit	nep	gak	(5)	_____	hep	jod	kib	lek	tob	(10)	_____	nom	rop	hig	reg	lat	(15)	_____	tup	ral	wix	leb	fut	(20)	_____	lut	yod	sib	cag	sig	(25)	_____	en	mon	nup	sen	kad	(30)	_____	mog	lew	paf	sal	zuv	(35)	_____	ved	kag	vun	riz	gof	(40)	_____	maz	kol	ver	et	beb	(45)	_____	ped	lef	yag	gim	dov	(50)	
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<p>☞ Exercise discontinued because the child had no correct answers in the first line</p>																																																																														

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

Task 3a. ORAL READING PASSAGE – ENGLISH

Page 3

60 seconds

☛ Yawwa, ga wani gajeren labari. Ina son ki/ka karanta shi a bayyane, da hanzari kuma a hankali. Idan kin/ka gama karantawa, zan yi miki/maka wasu 'yan tambayoyi game da abin da kika/ka karanta. Idan na ce “Fara” sai ki/ka karanta labarin gwargwadon iyawarki/ka. Idan kika/ka zo ga kalmar da ba ki/ka sani ba, sai ki/ka je akan kalma ta gaba. Aza yatsarki/ka akan kalma ta farko. Kin/ka shirya? To, bisimilla, ki/ka fara.

Start the timer when the child reads the first word.

- ☞ (/) Mark any incorrect words with a slash
 (Ø) Circle self-corrections if you already marked the word incorrect
 (]) Mark the final word read with a bracket

Ask the child only the questions related to the text read. A child must read all the text that corresponds with a given question. If the child does not provide a response to a question after 10 seconds, mark “no response” and continue to the next question. Do not repeat the question.

☞ When the timer reaches 0, say “stop.”

After the child is finished reading, REMOVE the passage from in front of the child.

Yanzu zan yi miki /maka wasu 'yan tambayoyi game da labarin da kika/ka karanta. Ki/ka yi fofari ki/ka ba da amsa gwargwadon iyawarki/ka. Kina/kana iya ba da amsar tambayoyin ta kowane yare ki/ka ke so.

☞ If a child hesitates or stops on a word for 3 SECONDS, say “ci gaba.”

☞ If you have marked as incorrect all of the words on the first line.

If a child says “I don't know,” mark as incorrect.

		Questions [Answers]	Correct	Incorrect	No Response
Binta and Ali clean their classroom every <u>day</u> .	8	1. What do Binta and Ali do every day at school? [clean their classroom]			
Ali cleans the blackboard and Binta sweeps the <u>floor</u> .	17	2. What is Binta's duty at school? [sweeping the floor]			
One day, they could not find Binta's broom. They looked in every <u>classroom</u> .	30	3. Where did Ali and Binta look for the broom? [in all the classrooms; in the school]			
Then they saw a goat eating the <u>broom</u> !	38	4. Where was the broom? [a goat ate it, in the goat's mouth]			
Binta and Ali told their teacher. Their teacher gave them a new <u>broom</u> .	51	5. What did the teacher give Ali and Binta? [gave them a new broom]			

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

☞ Exercise discontinued because the child had no correct answers in the first line

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



Task 4. LISTENING COMPREHENSION – ENGLISH		📖 X	🕒 X
<p>👂 Zan karanta miki/maka wani dan gajeren labari SAU DAYA, sannan zan yi miki/maka wasu 'yan tambayoyi. Sai ki/ka kasa kunne ki/ka saurara, kuma ki/ka yi kofari ki/ka amsa tambayoyi gwargwadon iyawarki/ka. Kina/kana iya amsa tambaya ta kowane yare kike/kake so. To, bisimilla.</p>		<p>Remove the pupil stimuli booklet from the child's view.</p> <p>Do not allow the child to look at the passage or the questions.</p> <p>If a child says "I don't know," mark as incorrect.</p>	
<p>Adama has a hen. It lays eggs every day. She sells the eggs at the market. One day, Adama dropped her basket of eggs. All the eggs broke. Adama was very sad. The next day Adama's hen gave new eggs. Adama was very happy.</p>			
		Correct	Incorrect
1. What does Adama have? [a hen]			No response
2. What does Adama sell at the market? [eggs]			
3. What happened to Adama's eggs? [they broke]			
4. Why was Adama sad? [she dropped her eggs, her eggs broke]			
5. Why was Adama happy? [her hen gave new eggs, she had new eggs to sell at the market]			

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

Annex 3: EGMA

Early Grade Mathematics Assessment: Pupil Response Form Administrator Instructions and Protocol – MAY 2013

General instructions

Establish a playful and relaxed rapport with the child through a short conversation (see example topics below). The child should perceive the assessment almost as a game to be enjoyed rather than a test. Use this time to identify in what language the child is most comfortable communicating. Read aloud slowly and clearly ONLY the sections in boxes.

Ina kwana? Sunana _____ kuma ina zaune a _____. Bari in fara da faɗa miki/maka ko ni wace ce/wane ne [misali, iyali, firamaren da aka yi, wasanni, da ire-iren haka]. To, yanzu ke/kai kuma ki/ka ba ni naki/naka labari in ji, ko?

Verbal Consent: Read the text in the box clearly to the child:

- Bari in faɗa maki/maka dalilin da ya sa na zo nan a yau. Ni ina aiki ne tare da ma'aikatar ba da ilimi, kuma muna son mu ga yadda yara suke koyon karatu da kuma yin lissafi. Taimakonki/ka muke so game da wannan aikin.
- An tsamo sunanki/ka ne domin yin wannan wasar karatu da kuma lissafi
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- Idan kuma muka fara, kika/ka ji ba ki/ka son amsa wata tambaya, shi ma wannan ba komai, sai mu wuce ta.
- Akwai tambaya? Kin/ka fahimta, mu fara?

Check box if verbal consent is obtained:

YES

(If verbal consent is not obtained, thank the child and move on to the next child, using this same form)

A. Date of assessment: (Example: 11 May 2013 = 11/05/2013)	Date: Month: _____ Year: _____	J. Class:	<input type="checkbox"/> P2 <input type="checkbox"/> P3 <input type="checkbox"/> Stage 1 (IQTE) <input type="checkbox"/> Stage 2 (IQTE)
B. State:		K. School Type	<input type="checkbox"/> Government <input type="checkbox"/> Government-Islamiyya <input type="checkbox"/> IQTE
C. LGEA name:		L. Section:	
D. LGEA code:		M. Pupil number:	
E. Administrator name:		N. Pupil birth date:	Mo_____ Yr_____
F. Administrator code:		O. Gender	<input type="checkbox"/> Boy <input type="checkbox"/> Girl
G. School name:			
H. School EMIS code:		P: Start Time	_____ : _____ <input type="checkbox"/> AM [Tick one] <input type="checkbox"/> PM
I. School shift:	<input type="checkbox"/> = Full Day <input type="checkbox"/> = Morning <input type="checkbox"/> = Afternoon		

Task 1: Number Identification		📖 A	🕒 60 seconds																				
<p>☛ Ga wasu lambobi nan. Ina son ka/ki nuna min kowace lamba daga cikin su, ka/ki fada min sunanta. Zan yi amfani da wannan agogo lokacin da za ka/ki fara da kuma gamawa. Kina/kana iy amsa tambaya ta kowane yare kike/kake so.</p> <p>- [aza hannu akan lambar farko] Ka/ki fara daga nan. Ka/kin shirya? To bismillah.</p>			<p>👉</p> <ul style="list-style-type: none"> • If the time on the stopwatch runs out (60 seconds). 																				
<p>☒ (/) Incorrect or no response () After the last number read</p> <table border="1"> <tbody> <tr> <td>4</td><td>0</td><td>9</td><td>13</td><td>28</td></tr> <tr> <td>33</td><td>37</td><td>40</td><td>55</td><td>69</td></tr> <tr> <td>74</td><td>81</td><td>82</td><td>90</td><td>99</td></tr> <tr> <td>118</td><td>127</td><td>405</td><td>654</td><td>936</td></tr> </tbody> </table>		4	0	9	13	28	33	37	40	55	69	74	81	82	90	99	118	127	405	654	936		<p>👉</p> <ul style="list-style-type: none"> • If a child stops on a number for <u>5 SECONDS</u>.
4	0	9	13	28																			
33	37	40	55	69																			
74	81	82	90	99																			
118	127	405	654	936																			
☒ Time left (seconds):																							

Task 2: Number Discrimination (practice)		📖 B1	🕒 x
<p>Practice 1:</p> <p>☛ Dubi wadannan lambobi. Ina son ka/ki fada min ko wacece ta fi girma cikinsu?</p> <p style="text-align: center;">8 4</p> <p>✓☛ Da kyau, 8 ce babba. Mu sake gwada wata.</p> <p>✗☛ Babbar lambar a nan ita ce 8. [aza yatsa akan 8] Wannan 8 ce. [aza yatsa kan 4] Wannan 4 ce. 8 tafi 4 girma. Mu sake gwada wata.</p>			<p>👉 x</p>
<p>Practice 2:</p> <p>☛ Dubi wadannan lambobi. Ina son ka/ki fada min waccece tafi girma cikinsu?</p> <p style="text-align: center;">10 12</p> <p>✓☛ Da kyau, 12 ce babba.</p> <p>✗☛ Babbar lambar anan itace 12. [aza yatsa akan 12] Wannan 10 ce. [aza yatsa kan 10] Wannan 10 ce. 12 yafi 10 girma.</p>			

Task 2: Number Discrimination		📖 B2 & B3	🕒 x																																																		
<p>☛ Dubi wadannan lambobi. Ina son ka fada min waccece tafi girma cikinsu? [ci gaba da amsa tambayoyin da ke biye kamar ta farko]</p>			<p>👉</p> <ul style="list-style-type: none"> • If the child gets 4 successive errors 																																																		
<p>☒ (✓) 1 = Correct. (✓) 0 = Incorrect or no response.</p> <table border="1"> <tbody> <tr> <td>5</td><td>3</td><td><u>5</u></td><td>1</td><td>0</td><td>82</td><td>76</td><td><u>82</u></td><td>1</td><td>0</td></tr> <tr> <td>14</td><td>27</td><td><u>27</u></td><td>1</td><td>0</td><td>129</td><td>131</td><td><u>131</u></td><td>1</td><td>0</td></tr> <tr> <td>33</td><td>28</td><td><u>33</u></td><td>1</td><td>0</td><td>365</td><td>445</td><td><u>445</u></td><td>1</td><td>0</td></tr> <tr> <td>55</td><td>45</td><td><u>55</u></td><td>1</td><td>0</td><td>720</td><td>602</td><td><u>720</u></td><td>1</td><td>0</td></tr> <tr> <td>63</td><td>65</td><td><u>65</u></td><td>1</td><td>0</td><td>943</td><td>945</td><td><u>945</u></td><td>1</td><td>0</td></tr> </tbody> </table>		5	3	<u>5</u>	1	0	82	76	<u>82</u>	1	0	14	27	<u>27</u>	1	0	129	131	<u>131</u>	1	0	33	28	<u>33</u>	1	0	365	445	<u>445</u>	1	0	55	45	<u>55</u>	1	0	720	602	<u>720</u>	1	0	63	65	<u>65</u>	1	0	943	945	<u>945</u>	1	0		<p>👉</p> <ul style="list-style-type: none"> • If the child doesn't respond after <u>5 SECONDS</u>.
5	3	<u>5</u>	1	0	82	76	<u>82</u>	1	0																																												
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63	65	<u>65</u>	1	0	943	945	<u>945</u>	1	0																																												

Task 3: Missing number (practice)	C1	⌚ x
<p>Practice 1: ✎ Ga wasu lambobi masu dangantaka da juna 1, 2, [nuna akwati marar lamba] lambar da babu a nan, 4. Wace lamba [nuna akwati marar lamba] ta dace anan?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $\frac{\quad}{1 \quad 2 \quad (3) \quad 4}$ </div> </div> <p>✓ ✎ Da kyau, 3 ce. Mu sake gwada wani. ✎ Lamba 3 ce aka tsallake. Mu fadi lambobin tare. [aza yatsar ka kan kowace lamba] 1, 2, 3, 4. 3 ce aka tsallake. Mu sake gwada wani.</p> <p>Practice 2: ✎ Ga wasu lambobi masu dangantaka da juna 5, 10, 15, [nuna akwati marar lamba] lambar da babu a nan. Wace lamba [point to the empty akwati] ta dace anan?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $\frac{\quad}{5 \quad 10 \quad 15 \quad (20)}$ </div> </div> <p>✓ ✎ Da kyau, 20 ce. ✎ Lamba 20 ce aka tsallake. Mu fadi lambobin tare. [aza yatsar ka kan kowace lamba] 5, 10, 15, 20. 20 ce aka tsallake.</p>		<p>✎ x</p> <p>✎ x</p> <p>⌚ x</p>

Task 3: Missing number	C2 & C3	⌚ x
<p>✎ Ga wasu lambobi nan. [nuna cikin akwatin] Wace lamba [nuna akwati marar lamba] ta dace anan? [Ka sake maimaitawa a kan ko wace tambaya.]</p> <p>✎ (✓) 1 = Correct. ✎ (✓) 0 = Incorrect or no response.</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p>1</p> $\frac{\quad}{4 \quad 5 \quad 6 \quad (7)}$ </div> <div style="width: 50%;"> <p>6</p> $\frac{\quad}{428 \quad 429 \quad (430) \quad 431}$ </div> <div style="width: 50%;"> <p>2</p> $\frac{\quad}{15 \quad 16 \quad (17) \quad 18}$ </div> <div style="width: 50%;"> <p>7</p> $\frac{\quad}{38 \quad (36) \quad 34 \quad 32}$ </div> <div style="width: 50%;"> <p>3</p> $\frac{\quad}{30 \quad (40) \quad 50 \quad 60}$ </div> <div style="width: 50%;"> <p>8</p> $\frac{\quad}{35 \quad 40 \quad (45) \quad 50}$ </div> <div style="width: 50%;"> <p>4</p> $\frac{\quad}{(300) \quad 400 \quad 500 \quad 600}$ </div> <div style="width: 50%;"> <p>9</p> $\frac{\quad}{360 \quad 350 \quad 340 \quad (330)}$ </div> <div style="width: 50%;"> <p>5</p> $\frac{\quad}{4 \quad 6 \quad 8 \quad (10)}$ </div> <div style="width: 50%;"> <p>10</p> $\frac{\quad}{4 \quad 9 \quad (14) \quad 19}$ </div> </div>		<p>✎ x</p> <p>✎ x</p> <ul style="list-style-type: none"> • If the child gets 4 successive errors ⌚ • If the child doesn't respond after <u>5 SECONDS</u>.

Task 4A: Addition: Level 1		D1 & D2	60 seconds																				
<p> Ga wani aikin lissafi akan Tarawa. [Bisu a hankali daga sama zuwa kasa]. Zan yi amfani da wannan kwanfuta. Ka/ki fadi amsar kowanne daga tambayoyin nan. Idan baka/ki san amsar na farko ba, to ka/kici gaba da tambaya ta gaba. Ka/ki fara daga nan [aza yatsa kan tambaya ta farko]. Ka/kin shirya? To bisimilla, fara.</p>		<p></p> <ul style="list-style-type: none"> If the time on the stopwatch runs out (60 seconds). <p></p> <ul style="list-style-type: none"> If a child stops on an item for <u>5 SECONDS</u>. 																					
<p> (/) Incorrect or no response () After last problem attempted</p> <table border="1"> <tbody> <tr> <td>1 + 2 = (3)</td> <td>12 + 1 = (13)</td> </tr> <tr> <td>3 + 2 = (5)</td> <td>14 + 3 = (17)</td> </tr> <tr> <td>4 + 3 = (7)</td> <td>17 + 2 = (19)</td> </tr> <tr> <td>2 + 6 = (8)</td> <td>8 + 6 = (14)</td> </tr> <tr> <td>3 + 3 = (6)</td> <td>8 + 9 = (17)</td> </tr> <tr> <td>8 + 1 = (9)</td> <td>9 + 7 = (16)</td> </tr> <tr> <td>7 + 3 = (10)</td> <td>6 + 6 = (12)</td> </tr> <tr> <td>3 + 5 = (8)</td> <td>3 + 14 = (17)</td> </tr> <tr> <td>5 + 5 = (10)</td> <td>10 + 4 = (14)</td> </tr> <tr> <td>4 + 6 = (10)</td> <td>6 + 10 = (16)</td> </tr> </tbody> </table>		1 + 2 = (3)	12 + 1 = (13)	3 + 2 = (5)	14 + 3 = (17)	4 + 3 = (7)	17 + 2 = (19)	2 + 6 = (8)	8 + 6 = (14)	3 + 3 = (6)	8 + 9 = (17)	8 + 1 = (9)	9 + 7 = (16)	7 + 3 = (10)	6 + 6 = (12)	3 + 5 = (8)	3 + 14 = (17)	5 + 5 = (10)	10 + 4 = (14)	4 + 6 = (10)	6 + 10 = (16)		
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5 + 5 = (10)	10 + 4 = (14)																						
4 + 6 = (10)	6 + 10 = (16)																						
<p> Time left (seconds):</p>																							

Task 4B: Addition: Level 2		D3	x
<p> Paper and pencil.</p> <p> Ga wani aikin lissafi akan Tarawa. Za ka/ki iya amfani da wannan takarda ko fensur in kana/kina so. Ba ma sai ka/kin bukaci hakan ba. Ka/ki fara daga nan [aza yatsa kan tambaya ta farko]. To bisimilla, fara.</p>		<p></p> <ul style="list-style-type: none"> If the child did not answer any Level 1 question correctly. If the child makes 4 consecutive errors. <p></p> <ul style="list-style-type: none"> If the child uses an inefficient strategy (e.g., tick marks), ask the child "Do you know another way to solve the problem?" If a child continues to use an inefficient strategy or stops on an item for 5 SECONDS. 	
<p> (✓) 1 = Correct. (✓) 0 = Incorrect or no response.</p> <p>17 + 2 = (19) <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>16 + 8 = (24) <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>23 + 15 = (38) <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>31 + 17 = (48) <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>36 + 27 = (63) <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>The child: <input type="checkbox"/> used fingers <input type="checkbox"/> used paper & pencil <input type="checkbox"/> solved the problem(s) in his/her head [check all that apply]</p>			

Task 5A: Subtraction: Level 1		E1 & E2	60 seconds																				
<p>✎ Ga wani aikin lissafi akan Debewa. [Bisu a hankali daga sama zuwa kasa]. Zan yi amfani da wannan agogo. Ka/ki fadi amsar kowanne daga tambayoyin nan. Idan ba ka/ki san amsar farko ba, to ka/kici gaba da tambaya ta gaba. Ka/ki fara daga nan [aza yatsa kan tambaya ta farko]. Ka/kin shirya? To bisimilla, fara.</p>		<p>👉</p> <ul style="list-style-type: none"> If the time on the stopwatch runs out (60 seconds). <p>🔄</p> <ul style="list-style-type: none"> If a child stops on an item for <u>5 SECONDS</u>. 																					
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<p>✎ Time left (seconds):</p>																							

Task 5B: Subtraction: Level 2		E3	x
<p>✎ ✎ Paper and pencil.</p> <p>✎ Ga wani aikin lissafi akan Debewa. Za ka/ki iya amfani da wannan takarda ko fensur in kana/kina so. Ba ma sai ka/kin bukaci hakan ba. Ka/ki fara daga nan [aza yatsa kan tambaya ta farko]. To bisimilla, fara.</p>		<p>👉</p> <ul style="list-style-type: none"> If the child did not answer any Level 1 question correctly. If the child makes 4 consecutive errors. <p>🔄</p> <ul style="list-style-type: none"> If the child uses an inefficient strategy (e.g., tick marks), ask the child "Do you know another way to solve the problem?" If a child continues to use an inefficient strategy or stops on an item for 5 SECONDS. 	
<p>✎ (✓) 1 = Correct. (✓) 0 = Incorrect or no response.</p> <p>$19 - 2 = (17)$ <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>$24 - 8 = (16)$ <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>$38 - 15 = (23)$ <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>$48 - 17 = (31)$ <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>$63 - 27 = (36)$ <input type="checkbox"/> 1 <input type="checkbox"/> 0</p> <p>The child: <input type="checkbox"/> used fingers <input type="checkbox"/> used paper & pencil <input type="checkbox"/> solved the problem(s) in his/her head [check all that apply]</p>			

Task 6: Word Problems (practice)		 x	 x
 ❖ Counters, paper and pencil.			
<p>☛ Ga wani aikin lissafi da nake son ka/ki warware mini. Amma ga waɗansu abubuwa da zasu taimaka maka/miki. Za ka/ki iya amfani dasu, amma ba dole bane buƙatar hakan. Saurara da kyau kan kowace tambaya. Idan kana/kina buƙatar in sake maimaita abinda na faɗa akai, zan sake. Ka/kin fahimta? To mu fara.</p> <p>☛ Akwai yara uku a cikin motar bas. Sai ɗaya daga cikin su ya sauka daga motar. Yara nawane suka rage a cikin motar?</p> <p>✓☛ Da kyau. Sauran yara biyu ne suka rage a cikin motar.</p> <p>*☛ Misali, dubi yatsun hannun ka ace yara ne. Kirga uku daga ciki, a ce su ne yawan yaran da suke cikin motar. Idan ka ɗauke ɗaya daga cikin yatsar, a ce shi ne yaro ɗaya day a fita daga cikin motar. Yara nawa suka rage a cikin motar ke nan? Da kyau, sauran yara biyu suka rage a cikin motar.</p>		 x	

Task 6: Word Problems		 x	 x
 ❖ Counters, paper and pencil.		☒ (✓) 1 = Correct. (✓) 0 = Incorrect or no response.	 <ul style="list-style-type: none"> • If the child gets 4 successive errors
☛ Yanzu ga ƙarin waɗansu tambayoyi.			
Problem 1 ☛ Yara biyu (2) suna tafiya makaranta. [tsaya ka duba] Sai suka haɗu da wasu yara huɗu (4), suka ci gaba da tafiya. [tsaya ka duba] Yara nawa ke nan duka suke tafiya makaranta?		Correct answer: 6 <input type="text" value="1"/> <input type="text" value="0"/>	OR <ul style="list-style-type: none"> • If the child doesn't respond to a question after one minute <p>Comment: The "[pause and check]s" in each problem indicate that you should be certain that the child understands what you have said before continuing. You may want to ask, "Do you understand?"</p>
Problem 2 ☛ Akwai yara takwas (8) a cikin motar bas. [tsaya ka duba] Maza uku (3), duk sauran mata ne. [tsaya ka duba] Yara mata nawa ne a cikin motar?		Correct answer: 5 <input type="text" value="1"/> <input type="text" value="0"/>	
Problem 3 ☛ Yara tara (9) suna ƙwallo. [tsaya ka duba] Yara huɗu (4) suna langa. [tsaya ka duba] Yara nawa za'a ƙara wa masu langa su zamo dai-dai da masu ƙwallo?		Correct answer: 5 <input type="text" value="1"/> <input type="text" value="0"/>	
Problem 4 ☛ A cikin motar bas akwai wasu yara. [tsaya ka duba] Sai motar ta dauki wasu yara uku (3). [tsaya ka duba] Suka zama yara takwas (8). [tsaya ka duba] Yara nawa ne ke cikin motar bas daga farko?		Correct answer: 5 <input type="text" value="1"/> <input type="text" value="0"/>	
Problem 5 ☛ Yara biyar (5) sun raba lemo goma (10) a tsakanin su. [tsaya ka duba] Lemo nawa kowane yaro ya samu?		Correct answer: 2 <input type="text" value="1"/> <input type="text" value="0"/>	
Problem 6 ☛ Keke guda shida (6). [tsaya ka duba] Ko wanne yana ɗauke da yara biyu (2). [tsaya ka duba] Yara nawa ne duka akan kekunan?		Correct answer: 12 <input type="text" value="1"/> <input type="text" value="0"/>	
The child: <input type="checkbox"/> used fingers/counters <input type="checkbox"/> used paper & pencil <input type="checkbox"/> solved the problem(s) in his/her head [check all that apply]			

Annex 4: Pupil Questionnaire

Pupil Questionnaire – Nigeria EGRA/EGMA May 2013

NOTE: THE DEMOGRAPHIC INFORMATION BELOW ONLY NEEDS TO BE FILLED IN IF YOU CONDUCTED THE ASSESSMENTS IN TANGERINE, BUT WERE NOT ABLE TO CONDUCT THE QUESTIONNAIRE IN TANGERINE. WE WILL MATCH THE QUESTIONNAIRE TO THE PUPIL'S ASSESSMENT IN TANGERINE.

A. Date of assessment: (Example: 11 May 2013 = 11/05/2013)	Date: _____ Month: _____ Year: _____	J. Class:	<input type="checkbox"/> P2 <input type="checkbox"/> P3 <input type="checkbox"/> Stage 1 (IQTE) <input type="checkbox"/> Stage 2 (IQTE)
B. State:		K. School Type	<input type="checkbox"/> Government <input type="checkbox"/> Government-Islamiyya <input type="checkbox"/> IQTE
C. LGEA name:		L. Section:	
D. LGEA code:		M. Pupil number:	(If known from Tangerine)
E. Administrator name:		N. Pupil birth date:	Mo_____ Yr_____
F. Administrator code:		O. Gender	<input type="checkbox"/> Boy <input type="checkbox"/> Girl
G. School name:			
H. School EMIS code:		P: Start Time	_____ : _____ <input type="checkbox"/> AM [Tick one] <input type="checkbox"/> PM
I. School shift:	<input type="checkbox"/> = Full Day <input type="checkbox"/> = Morning <input type="checkbox"/> = Afternoon		

INSTRUCTIONS TO ASSESSOR

- Ask the pupil each question verbally, as in an interview.
- DO NOT READ THE ANSWER OPTIONS TO THE PUPIL UNLESS INDICATED TO DO SO.
- Wait for the pupil to respond to each question, then tick the box () that corresponds to his or her response.

INTERVIEW QUESTIONS

Zan yi maka wasu 'yan tambayoyi game da abin da kike/kake yi a makaranta, da kuma a gida. Ka/ki yi fofari ki/ka amsa tambayoyin gwargwadon iyawarki/ka. Ka/ki daga murya don in ji ki/ka. Ka/kin shirya?

1.	Shekarunki/ka nawa ne? How old are you?	Shekaru (Years): <input style="width: 50px; height: 20px;" type="text"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
2.	Kin/Ka yi nazare ko rabin aji kafin ki/ka shiga aji daya? Did you go to nursery before P1?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>

3.	<p>a) Malaminka na Hausa yana nan makaranta yau? Is your Hausa language teacher here today?</p> <p>b) [ASK THIS QUESTION ONLY IF PUPIL IS IN PRIMARY 3 OR STAGE 2] Malaminka na Ingilishi yana makaranta yau? Is your English language teacher here today?</p> <p>c) Malaminka na Lissafi yana makaranta yau? Is your mathematics teacher here today?</p>		A'a (No)	I (Yes)	Ban sani ba/Ba amsa (Do not know/No response)	
4.		<p>Yau kin/ka ci abinci kafin ki/ka zo makaranta? Did you eat before coming to school today?</p> <p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>				
5.		<p>Daga gida ki/ka ke zuwa wannan makaranta kullun, ko ki/ka na zaune tare da malaminki/ka ne a anan makarantar? Do you come to this school each day from home, or do you live with the malams at this school?</p> <p>Ina zuwa wannan makaranta daga gida kullun (Live at home and come to school each day) <input type="checkbox"/></p> <p>Ina zaune a wannan makaranta tare da malami na (Live with malam at this school): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>				
6.		<p>Ko kina/kana zuwa wata makaranta baya ga wannan? Gaya mini ko wace irin makaranta ce kike/kake zuwa. Do you attend any other school besides this school? [IF YES:] Please tell me the type of school you attend.</p> <p>A'a, wannan makarantar kawai nika zuwa (No, I only attend this school): <input type="checkbox"/></p> <p>I, ina zuwa makarantar boko (Yes, I attend a regular government school): <input type="checkbox"/></p> <p>I, ina zuwa Islamiya (Yes, I attend an IQTE school): ... <input type="checkbox"/></p> <p>I, ina zuwa makarantar Allo/Tsangaya (Yes, I attend a private Koranic school – NOT an IQTE school): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>				
7.		<p>Kin/ka yi fashin zuwa wannan makaranta makon jiya? Were you absent from THIS school any day last week?</p> <p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>				

8.	8a) Kina/kana da littafin karatun Hausa a makaranta? Do you have a Hausa reading book at school?		A'a (No)	I (Yes)	Ban sani ba/Ba amsa (Do not know/No response)
	8b) Kina/kana da littafin karatun Ingilishi a makaranta? Do you have English reading book at school?	8a. Littafin koyon Hausa (Hausa language textbook)			
	8c) Kina/kana da littafin koyon Lissafi a makaranta? Do you have Mathematics text book at school?	8b. Littafin koyon Ingilishi (English language textbook)			
	8d) Kina/kana da littafin rubutu na lissafi a makaranta? Do you have Mathematics exercise book at school?	8c. Littafin koyon Lissafi (Mathematics textbook)			
		8d. Littafin rubutun Lissafi (Mathematics exercise book)			
9.	Kina/kana da lokacin karatu a cikin aji ko a laboraren makarantarku? Did you have time to read books in your classroom or in your school library every day?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			
10.	Kina/kana dawowa gida da littattafai daga aji ko laboraren makaranta? Do you bring home reading books from your classroom or from the school library?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			
11.	Akwai wani mai yi miki/maka karatu kina/kana saurara a gida? Does someone at home read to you?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			
12.	Shin a gida akwai mai taimaka miki/maka in kin/ka koma da aiki daga makaranta? Does someone at home help you with your homework when you need it?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			
13.	Yaushe kike/kake karatu a bayyane wani na saurara a gida? Zaɓi ɗaya: Ban taɓa ba, wani lokaci, ko kullum? How often do you read out loud to someone at home? Never, sometimes, or every day?	Ban taɓa ba (Never): <input type="checkbox"/> Wani lokaci (Sometimes): <input type="checkbox"/> Kullum (Everyday): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			
Yanzu zan yi miki/maka 'yan tambayoyi game da gidanku. Now I'm going to ask you a few questions about your home.					
14.	Wane yare ne kika/ka fi amfani da shi a gida? What language do you speak <i>most</i> frequently at home?	Hausa <input type="checkbox"/> Fulfulde <input type="checkbox"/> Ingilishi <input type="checkbox"/> Sauransu (Other) <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>			

15.	Bayan aikin makaranta, akwai littattafai, ko jaridu, ko wasu abubuwan karatu a gida? Apart from your school books, are there books, newspapers or other materials for you to read at your house?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
16.	Da me aka yi daɓen 'floor' na gidanku? What is the main <u>flooring</u> material of your house?	Rai rayi (earth/sand) <input type="checkbox"/> Kara (straw) <input type="checkbox"/> Leda (rubber tiles [vinyl]) <input type="checkbox"/> Tayils (tiles) <input type="checkbox"/> Daɓen siminti (cement) <input type="checkbox"/> Darduma (carpet rug) <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
17.	Da me aka yi rufin gidanku? What is the main <u>roofing</u> material of your house?	Babu rufi (no roof): <input type="checkbox"/> Rufin ciyawa (thatch) <input type="checkbox"/> Ledar rufi (plastic mat): <input type="checkbox"/> Kwano (metal/zinc): <input type="checkbox"/> Dakin (cement): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
18.	A ina kuka fi samun ruwan da kuke sha a gida? Where do you most frequently get your drinking water at home?	Rijiya (open well) <input type="checkbox"/> Rijiyar burtsatse (covered well or borehole) <input type="checkbox"/> Famfon dake wajen gida (tap outside the house/compound) <input type="checkbox"/> Famfon dake cikin gida (tap inside the house/compound) <input type="checkbox"/> Rafi/kogi/tapki (stream, river, pond, etc.) <input type="checkbox"/> Daga masu sayar da ruwa (buy from vendors) <input type="checkbox"/> Wata hanya daban (other) <input type="checkbox"/> Ban sani ba/ba amsa (do not know/no response) .. <input type="checkbox"/>
19.	Da me ake dafa abinci a gidanku? [Read options to the child.] What type of fuel does your family use for cooking MOST OFTEN?	Itace, gawayi (wood/coal): <input type="checkbox"/> Na'ura mai aiki da gas/wutar lantarki / risho (gas/electric/kerosene): <input type="checkbox"/> Kashin shanu (cow dung) <input type="checkbox"/> Kara (corn stalk) <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
20.	Wane irin bandaki ake amfani da shi a gidanku? What type of toilet facility does your household have?	Bayan gidan zamani mai amfani da ruwa (Flush toilet): <input type="checkbox"/> Bayan gidan gargajiya masai (Pit toilet/latrine): <input type="checkbox"/> Ba bu bandaki a gida (No facility): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>

21.	Wadanne daga cikin abubuwan nan kuke da su a gida? Do you have the following items in your home?	A'a (No)	I (Yes):	Ban sani ba/Ba amsa (Do not know/No response)
a	Akwai rediyo? (A radio?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Akwai tarho, ko salula ko hansit ko waya? (A telephone or cell phone?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Akwai wutar NEPA? (Electricity?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Akwai telebijin? (A television?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Akwai firji? (A refrigerator?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Akwai keke? (A bicycle?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g	Akwai mashin? (A motorcycle or motorbike?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h	Akwai mota? (A car or truck?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i	Akwai kwale-kwale? (A canoe?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j	Akwai jirgin ruwa mai inji? (A boat with a motor?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k	Akwai kurar daukar kaya/amalanke? (An animal-drawn cart?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l	Akwai janareta (A generator?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m	Akwai komfuta? (A computer?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Na gode kwarai! Yanzu mun gama! Kin/ka yi kofari. Sai ki/ka koma ajinku, amma kar ki/ka fada wa sauran dalibai abin da muka yi yau.

Thank you very much for your help. You may now return to class. Please do not tell the other children about what we have done here.

Q.	Time the test ended					
		H	H	M	M	AM/PM

Assessor's initials:

Annex 5: Teacher Questionnaire

Teacher Questionnaire – Nigeria EGRA/EGMA 2013

Teacher Questionnaire – EGRA/EGMA

Teacher Consent Form (File copy)

Sannu Malam/Malama, Sunana / Hello, my name is _____.

Muna aiki tare da hukumar ba da ilimi na bai daya SUBEB, da Ma'aikatar Ilmi, domin gudanar da aikin bincike na gano hazaƙar dalibai 'yan aji biyu da uku wajen iya karatu da lissafi a wasu zaɓaɓɓun makarantu. Wannan binciken ana kiransa, EGRA (wato auna basirar karatun yara a matakin farko) da kuma EGMA (wato auna basirar yara a kan iya Lissafi a matakin Farko).

We are working with SUBEB and the Ministry of Education to conduct a survey to assess the reading and mathematics ability of pupils in P2 and P3 (Stage 1 & Stage 2) in a sample of schools. This survey is called the Early Grade Reading and Mathematics Assessment, or EGRA and EGMA.

- Dalilin gudanar da binciken na EGRA da EGMA shi ne a auna iya karatu da lissafi daga ɓangaren dalibai. Muna kuma tattara bayanai game da makarantu da ma'aikatan makarantun domin mu fahimci yanayin aiki da kuma yadda ake aikin, waɗanda suke iya yin tasiri ga koyon karatu da lissafi.
The purpose of the EGRA and EGMA survey is to assess the mathematics and reading ability of pupils. We are also gathering information about schools and school staff to learn more about conditions and practices that may affect children's reading and mathematics.
- An tsamo wannan makaranta ne, cikin wannan binciken haka kawai. Shigarki/ka cikin wannan aiki tana/yana da muhimmancin gaskke, sai dai ba dole bane ki/ka shiga idan ba kya/ka son yin haka.
This school was randomly selected for participation in this survey. Your participation is very important, but you do not have to participate if you do not wish to.
- Idan kika/ka amince ki/ka shiga, zan yi miki/maka wasu 'yan tamabayoyi game da harkokin aikinki/ka a makaranta. Lokacin da zan dauka wajen yi miki/ maka tambayoyin ba zai wuce minti 15 zuwa 20 ba.
If you agree to participate, I will ask you some questions regarding your normal activities at school. My questions for you will take approximately 15-20 minutes.
- SAM, sunanki/ka ba zai fito a takardar nan ba, kuma ba wani wuri inda sunan zai fito a alƙaluman binciken. Duka jumlar sakamakon binciken da aka gudanar a makarantu za a samar da kwafinsa ga hukumomin NEI, da na SUBEB, da kuma Ma'aikatar Ilmi, domin a gano inda ake neman tallafin haɓaka iya karatu da lissafi a tsakanin 'yan azuzuwan farko. Za a yi amfani da sakamakon binciken don haƙiƙance ƙwazon dalibanki/ka a fannin iya karatu da lissafi. Za a sirranta sakamakon da aka samu ta hanyar tambayoyin malamai, sannan sai a haɗe shi tare da sakamakon sauran makarantu.
Your name will NOT be recorded on this form, nor mentioned anywhere in the survey data. The combined results of the EGRA and EGMA surveys conducted in many schools will be shared with the NEI project, SUBEB, the Ministry of Education, and other education stakeholders to identify areas where additional support may be needed to improve reading and mathematics in the early grades. Information provided in teacher surveys will be anonymous and will not be reported by school, but will be combined with results from many other schools.
- Mun yi imani cewa ba wani lahani da zai same ki/ka, sabo da shiga wannan bincike.
We believe there is no risk to you in participating in this research.
- Ba wata ladar kuɗi da za ki/ka samu saboda yarda a gana da ke/kai. Duk da haka, za a yi amfani da amsoshinki/ka wajen taimakawa a tallafa wa yunƙurin haɓaka koyon karatu da lissafi a Najeriya.
You will not personally benefit from participating in this interview. However, your responses will be used to help support improvements in early grade mathematics in Nigeria.
- Idan kana/kina da wata tambaya game da wannan bincike, to sai ki/ka tuntubi:
If you have any questions regarding this study, please feel free to contact:

Bauchi: Yahaya A. Umar, SUBEB Bauchi, 0703-292-1016

Sokoto: Ahmad A Umar, SUBEB Sokoto, 0803-579-9512

Bari in nanata cewa, ba dole ba ne ki/ka shiga binciken, idan ba kya/ka so yin haka. In kuma muka fara, ki/ka ji ba kya/ka son amsa wata tambaya, ba damuwa. Kin/ka amince ki/ka shiga?

Once again, you do not have to participate if you do not wish to. Once we begin, if you would rather not answer a question, that's all right. Are you willing to participate?

Teacher provided consent (Circle to indicate consent was received): YES



INSTRUCTIONS TO ENUMERATOR

- Teachers selected for this interview **MUST** teach either mathematics, Hausa or English to P2 or P3 pupils (or Stage 1 or Stage 2 in IQTE schools). Do **NOT** interview teachers if they do not teach at least **ONE** of these subjects to children in these levels.
- Ask the teacher each question verbally, as in an interview. Text to read to teachers is in **BOLD**.
- DO NOT READ THE ANSWER OPTIONS TO THE TEACHER UNLESS INDICATED TO DO SO.
- Wait for the teacher to respond to each question, then tick the box () that corresponds to his or her response.
- Only one response is permitted, except where indicated otherwise.

DEMOGRAPHIC DATA

A.	Interview date	<table border="1"> <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									
B.	Time the interview started	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>H</td><td>H</td><td>M</td><td>M</td><td>AM/PM</td><td></td> </tr> </table>							H	H	M	M	AM/PM	
H	H	M	M	AM/PM										
C.	State:													
D.	LGA:													
E.	LGA code:													
F.	School type:	<input type="checkbox"/> Government <input type="checkbox"/> Government-Islamiyya <input type="checkbox"/> IQTE												
G.	School name:													
H.	School EMIS code:													
I.	Administrator name:													
J.	Administrator code:													
K.	Teacher code:													
L.	Teacher's gender:	Female: <input type="checkbox"/> Male: <input type="checkbox"/>												

INTERVIEW QUESTIONS

1.	Shekarunki/ka nawa ne? How old are you?	Adadin shekaru (Years): <input type="text"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
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2.	<p>Wadanne fannoni ne kike/kake koyarwa a wannan makaranta? What subjects do you teach at this school?</p> <p>[Multiple responses are allowed. Tick all responses provided by the teacher.]</p>	<p>Hausa <input type="checkbox"/></p> <p>English <input type="checkbox"/></p> <p>Arabic <input type="checkbox"/></p> <p>Science <input type="checkbox"/></p> <p>Maths <input type="checkbox"/></p> <p>Social Studies <input type="checkbox"/></p> <p>Life Skills <input type="checkbox"/></p> <p>Arts <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
3a.	<p>[IF GOVERNMENT SCHOOL]</p> <p>Wadanne azuzuwa kike/kake koyarwa yanzu a wannan makaranta? Which classes do you currently teach at this school?</p> <p>[Multiple responses are allowed. Tick all responses provided by the teacher.]</p>	<p>Primary 1 <input type="checkbox"/></p> <p>Primary 2 <input type="checkbox"/></p> <p>Primary 3 <input type="checkbox"/></p> <p>Primary 4 <input type="checkbox"/></p> <p>Primary 5 <input type="checkbox"/></p> <p>Primary 6 <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
3b.	<p>[IF IQTE SCHOOL]</p> <p>Wadanne azuzuwa kike/kake koyarwa yanzu a wannan makaranta? Which classes do you currently teach at this school? [Multiple responses are allowed. Tick all responses provided by the teacher.]</p>	<p>Stage 1 <input type="checkbox"/></p> <p>Stage 2 <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
4a.	<p>IF SELECTS <u>PRIMARY 2 or Stage 1</u> AND <u>HAUSA</u>, CONFIRM:</p> <p>Do you teach Hausa in Primary 2/Stage 1?</p> <p>→ IF YES, Wadanne sassa na Aji Biyu [or Stage 1] kike/kake koyar da HAUSA?</p> <p>For which sections do you teach Hausa in Primary 2 [or Stage 1]?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>IF YES: (4a.2)</p> <p>Section A..... <input type="checkbox"/></p> <p>Section B..... <input type="checkbox"/></p> <p>Section C..... <input type="checkbox"/></p> <p>Section D <input type="checkbox"/></p> <p>Section E <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>The school does not have sections..... <input type="checkbox"/></p>

<p>4b.</p>	<p>IF SELECTS <u>PRIMARY 2 or Stage 1</u> AND <u>MATHEMATICS</u>, CONFIRM:</p> <p>Do you teach Mathematics in Primary 2/Stage 1?</p> <p>→ IF YES: Wadanne sassa na Aji Biyu [or Stage 1] kike/kake koyar da LISSAFI?</p> <p>For which sections do you teach mathematics in Primary 2 [or Stage 1]?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>IF YES (4b.2)</p> <p>Section A..... <input type="checkbox"/></p> <p>Section B..... <input type="checkbox"/></p> <p>Section C..... <input type="checkbox"/></p> <p>Section D <input type="checkbox"/></p> <p>Section E <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>The school does not have sections..... <input type="checkbox"/></p>
<p>5a.</p>	<p>IF SELECTS <u>PRIMARY 3 or Stage 2</u> AND <u>HAUSA</u>, CONFIRM:</p> <p>Do you teach Hausa in Primary 3/Stage 2?</p> <p>→ IF YES: Wadanne sassa na Aji Ukku [or Stage 2] kike/kake koyar da HAUSA?</p> <p>For which sections do you teach Hausa in Primary 3 [or Stage 2]?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>IF YES (5a.2)</p> <p>Section A..... <input type="checkbox"/></p> <p>Section B..... <input type="checkbox"/></p> <p>Section C..... <input type="checkbox"/></p> <p>Section D <input type="checkbox"/></p> <p>Section E <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>The school does not have sections..... <input type="checkbox"/></p>
<p>5b.</p>	<p>IF SELECTS <u>PRIMARY 3 or Stage 2</u> AND <u>MATHEMATICS</u>, CONFIRM:</p> <p>Do you teach Mathematics in Primary 3/Stage 2?</p> <p>→ IF YES: Wadanne sassa na Aji Ukku [or Stage 2] kike/kake koyar da LISSAFI?</p> <p>For which sections do you teach mathematics in Primary 3 [or Stage 2]?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>IF YES (5b.2)</p> <p>Section A..... <input type="checkbox"/></p> <p>Section B..... <input type="checkbox"/></p> <p>Section C..... <input type="checkbox"/></p> <p>Section D <input type="checkbox"/></p> <p>Section E <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>The school does not have sections..... <input type="checkbox"/></p>
<p>5c.</p>	<p>IF SELECTS <u>PRIMARY 3 or Stage 2</u> AND <u>ENGLISH</u>, CONFIRM:</p> <p>Do you teach English in Primary 3/Stage 2?</p> <p>→ IF YES: Wadanne sassa na Aji Ukku [or Stage 2] kike/kake koyar da Ingilishi?</p> <p>For which sections do you teach English in Primary 3 [or Stage 2]?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>IF YES (5c.2)</p> <p>Section A..... <input type="checkbox"/></p> <p>Section B..... <input type="checkbox"/></p> <p>Section C..... <input type="checkbox"/></p> <p>Section D <input type="checkbox"/></p> <p>Section E <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> <p>The school does not have sections..... <input type="checkbox"/></p>

6.	<p>Gaba ɗaya tsawon shekaru nawa kika/ka dauka kana/kina aikin karantarwa? How many years of teaching experience do you have? (In total, not just at this school.) Tell me the number of years.</p>	<p>Adadin shekaru (Years): <input type="text"/></p> <p>Adadin watanni (Months): <input type="text"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p> <p>[Enter the number of years in total, not just at this school. If less than one year, enter 0 for years. Then enter the number of months. Do NOT enter the number of months <u>unless</u> the Teacher has less than 1 year of experience.]</p>
7.	<p>Mene ne mafi girman shaidar ilimi da kika/ka mallaka? What is your highest professional qualification?</p>	<p>Babu ko ɗaya (None) <input type="checkbox"/></p> <p>Grade II <input type="checkbox"/></p> <p>NCE <input type="checkbox"/></p> <p>B.Ed. <input type="checkbox"/></p> <p>PGDE (Post-Graduate Diploma in Education) <input type="checkbox"/></p> <p>M.Ed. <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
8.	<p>Wane fanni ne kika/ka karanta a lokacin horon shiga aikin malanta? What was your specialization during <u>pre-service</u> training? [Multiple responses allowed.]</p>	<p>Primary Education Studies <input type="checkbox"/></p> <p>Hausa <input type="checkbox"/></p> <p>English <input type="checkbox"/></p> <p>Arabic <input type="checkbox"/></p> <p>Science <input type="checkbox"/></p> <p>Maths <input type="checkbox"/></p> <p>Arts <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
9a.	<p>Ko kin/ka sami wani horo a kan koyar da Karatun HAUSA a fananan azuzuwa kafin ki/ka fara aikin koyarwa? Have you received specific instruction on how to teach <u>Hausa</u> for children in early primary during your <u>pre-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
9b.	<p>Ko kin/ka sami wani horo a kan koyar da INGILISHI a fananan azuzuwa kafin ki/ka fara aikin koyarwa? Have you received specific instruction on how to teach <u>English</u> for children in early primary during your <u>pre-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
9c.	<p>Ko kin/ka sami wani horo a kan koyar da LISSAFI a fananan azuzuwa kafin ki/ka fara aikin koyarwa? Have you received specific instruction on how to teach <u>mathematics</u> for children in early primary during your <u>pre-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>

10a.	<p>Ko kin/ka sami wani horo akan koyar da Karatun HAUSA a fananan azuzuwa a lokacin da kike/kake cikin aiki?</p> <p>Have you received specific instruction on how to teach <u>Hausa</u> for children in early primary during your <u>in-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
10b.	<p>Ko kin/ka sami wani horo akan koyar da INGILISHI a fananan azuzuwa a lokacin da kike/kake cikin aiki?</p> <p>Have you received specific instruction on how to teach <u>English</u> for children in early primary during your <u>in-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
10c.	<p>Ko kin/ka sami wani horo akan koyar da LISSAFI a fananan azuzuwa a lokacin da kike/kake cikin aiki?</p> <p>Have you received specific instruction on how to teach <u>mathematics</u> for children in early primary during your <u>in-service</u> training?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
11.	<p>Wane yare kika/ka fi fahimta sannan kika/ka fi magana da shi?</p> <p>What language do you speak and understand <i>best</i>?</p> <p>[only one response allowed]</p>	<p>Hausa <input type="checkbox"/></p> <p>Fulfulde <input type="checkbox"/></p> <p>Arabic <input type="checkbox"/></p> <p>Turaci (English) <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
12.	<p>Wane yare (yaruka) kike/kake iya karatu da rubutu da shi (su) sosai? [multiple responses allowed]</p> <p>What language(s) do you read and write well?</p>	<p>Hausa <input type="checkbox"/></p> <p>Fulfulde <input type="checkbox"/></p> <p>Arabic <input type="checkbox"/></p> <p>Turaci (English) <input type="checkbox"/></p> <p>Sauransu (Other) <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
13a.	<p>[IF TEACHES HAUSA]</p> <p>Ko kina/kana da wadattatun kayan koyarwa a ajinki/ajinka don koyar da karatun HAUSA?</p> <p>Do you have adequate materials in your classroom for teaching and learning Hausa?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Not applicable – does not teach this subject <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>
13b.	<p>[IF TEACHES ENGLISH]</p> <p>Ko kina/kana da wadattatun kayan koyarwa a ajinki/ajinka don koyar da INGILISHI?</p> <p>Do you have adequate materials in your classroom for teaching and learning English?</p>	<p>A'a (No): <input type="checkbox"/></p> <p>I (Yes): <input type="checkbox"/></p> <p>Not applicable – does not teach this subject <input type="checkbox"/></p> <p>Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/></p>

13c.	<p>[IF TEACHES MATHEMATICS] Ko kina/kana da wadattatun kayan koyarwa a ajinki/ajinka don koyar da LISSAFI? Do you have adequate materials in your classroom for teaching and learning mathematics?</p>	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Not applicable – does not teach this subject <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>										
14a.	<p>[IF TEACHES HAUSA] Yaya za ki/ka auna fwarewar dalibanki/ka a karatun HAUSA? Da rauni, da dama, da kyau fwarai. How would you rate the reading skills of your pupils in HAUSA: Weak, Average or Strong?</p>	Da rauni (weak): <input type="checkbox"/> Da dama (average): <input type="checkbox"/> Da kyau fwarai (strong): <input type="checkbox"/> Not applicable – does not teach this subject <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>										
14b.	<p>[IF TEACHES ENGLISH] Yaya za ki/ka auna fwarewar dalibanki/ka a INGILISHI? Da rauni, da dama, da kyau fwarai. How would you rate the reading skills of your pupils in ENGLISH: Weak, Average or Strong?</p>	Da rauni (weak): <input type="checkbox"/> Da dama (average): <input type="checkbox"/> Da kyau fwarai (strong): <input type="checkbox"/> Not applicable – does not teach this subject <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>										
14c.	<p>[IF TEACHES MATHEMATICS] Yaya za ki/ka auna fwarewar dalibanki/ka a LISSAFI? Da rauni, da dama, da kyau fwarai. How would you rate the skills of your pupils in MATHEMATICS: Weak, Average or Strong?</p>	Da rauni (weak): <input type="checkbox"/> Da dama (average): <input type="checkbox"/> Da kyau fwarai (strong): <input type="checkbox"/> Not applicable – does not teach this subject <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>										
15a, 15b	<p>Shin ko kin/ka yi rashin zuwa makaranta ko da sau ɗaya ne a satin da ya gabata? [Idan haka ne mene ne dalili?] Were you absent from school any day last week? [IF YES: Why were you absent?] [TICK ALL RESPONSES PROVIDED]</p>	I (No, was not absent from school last week) <input type="checkbox"/> Rashin lafiya (Illness) <input type="checkbox"/> Wani aikin daban (Work other jobs) <input type="checkbox"/> Rashin ingantaccen albashi (Do not get paid/pay insufficient/pay irregular) <input type="checkbox"/> Rashin kwarin guiwa (Lack motivation) <input type="checkbox"/> Lalurorin iyali (Family responsibility) <input type="checkbox"/> Rashin abin hawa (No transportation) <input type="checkbox"/> Wasu dalilan daban (Other) <input type="text"/> Ban sani ba/ Ba amsa (Do not know/No response) <input type="checkbox"/>										
M.	Time the interview ended	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>H</td> <td>H</td> <td>M</td> <td>M</td> <td>AM/PM</td> </tr> </table>						H	H	M	M	AM/PM
H	H	M	M	AM/PM								

Assessor's initials:

Annex 6: Head Teacher Questionnaire

Head Teacher Questionnaire – Nigeria EGRA/EGMA 2013

Head Teacher Consent Form (File copy)

Sannu Malam/Malama, Sunana / Hello, my name is _____.

Muna aiki tare da hukumar ba da ilimi na bai daya SUBEB, da Ma'aikatar Ilmi, domin gudanar da aikin bincike na gano haɓakar dalibai 'yan aji biyu da uku wajen iya karatu da lissafi a wasu zaɓaɓɓun makarantu. Wannan binciken ana kiransa, EGRA (wato auna basirar karatun yara a matakin farko) da kuma EGMA (wato auna basirar yara a kan iya Lissafi a matakin Farko).

We are working with SUBEB and the Ministry of Education to conduct a survey to assess the reading and mathematics ability of pupils in P2 and P3 (Stage 1 & Stage 2) in a sample of schools. This survey is called the Early Grade Reading and Mathematics Assessment, or EGRA and EGMA.

- Dalilin gudanar da binciken na EGRA da EGMA shi ne a auna iya karatu da lissafi daga ɓangaren dalibai. Muna kuma tattara bayanai game da makarantu da ma'aikatan makarantun domin mu fahimci yanayin aiki da kuma yadda ake aikin, waɗanda suke iya yin tasiri ga koyon karatu da lissafi.

The purpose of the EGRA and EGMA survey is to assess the mathematics and reading ability of pupils. We are also gathering information about schools and school staff to learn more about conditions and practices that may affect children's reading and mathematics.
- An tsamo wannan makaranta ne, cikin wannan binciken haka kawai. Shigarki/ka cikin wannan aiki tana/yana da muhimmancin gaske, sai dai ba dole bane ki/ka shiga idan ba kya/ka son yin haka.

This school was randomly selected for participation in this survey. Your participation is very important, but you do not have to participate if you do not wish to.
- Idan kika/ka amince ki/ka shiga, zan yi miki/maka wasu 'yan tamabayoyi game da harkokin aikinki/ka a makaranta. Lokacin da zan dauka wajen yi miki/ maka tambayoyin ba zai wuce minti 15 zuwa 20 ba.

If you agree to participate, I will ask you some questions regarding your normal activities at school. My questions for you will take approximately 15-20 minutes.
- SAM, sunanki/ka ba zai fito a takardar nan ba, kuma ba wani wuri inda sunan zai fito a alƙaluman binciken. Duka jumlar sakamakon binciken da aka gudanar a makarantu za a samar da kwafinsa ga hukumomin NEI, da na SUBEB, da kuma Ma'aikatar Ilmi, domin a gano inda ake neman tallafin haɓaka iya karatu da lissafi a tsakanin 'yan azuzuwan farko. Za a yi amfani da sakamakon binciken don haƙiƙance ƙwazon dalibanki/ka a fannin iya karatu da lissafi. Za a sirranta sakamakon da aka samu ta hanyar tambayoyin malamai, sannan sai a haɗe shi tare da sakamakon sauran makarantu.

Your name will NOT be recorded on this form, nor mentioned anywhere in the survey data. The combined results of the EGRA and EGMA surveys conducted in many schools will be shared with the NEI project, SUBEB, the Ministry of Education, and other education stakeholders to identify areas where additional support may be needed to improve reading and mathematics in the early grades. Information provided in teacher surveys will be anonymous and will not be reported by school, but will be combined with results from many other schools.
- Mun yi imani cewa ba wani lahani da zai same ki/ka, sabo da shiga wannan bincike.

We believe there is no risk to you in participating in this research.
- Ba wata ladar kuɗi da za ki/ka samu saboda yarda a gana da ke/kai. Duk da haka, za a yi amfani da amsoshinki/ka wajen taimakawa a tallafa wa yunƙurin haɓaka koyon karatu da lissafi a Najeriya.

You will not personally benefit from participating in this interview. However, your responses will be used to help support improvements in early grade mathematics in Nigeria.
- Idan kana/kina da wata tambaya game da wannan bincike, to sai ki/ka tuntubi:

If you have any questions regarding this study, please feel free to contact:

Bauchi: Yahaya A. Umar, SUBEB Bauchi, 0703-292-1016

Sokoto: Ahmad A Umar, SUBEB Sokoto, 0803-579-9512

Bari in nanata cewa, ba dole ba ne ki/ka shiga binciken, idan ba kya/ka so yin haka. In kuma muka fara, ki/ka ji ba kya/ka son amsa wata tambaya, ba damuwa. Kin/ka amince ki/ka shiga?

Once again, you do not have to participate if you do not wish to. Once we begin, if you would rather not answer a question, that's all right. Are you willing to participate?

Head Teacher provided consent (Circle to indicate consent was received): YES

INSTRUCTIONS TO ASSESSOR

- Ask the Head Teacher each question verbally, as in an interview.
- DO NOT READ THE ANSWER OPTIONS TO THE HEAD TEACHER UNLESS INDICATED TO DO SO.
- Wait for the Head Teacher to respond to each question, then tick the box () that corresponds to his or her response.
- Only one response is permitted, except where indicated otherwise.
- If the Head Teacher is not available, conduct the interview with the Assistant Head Teacher.

DEMOGRAPHIC DATA

A.	Interview date	<table border="1"> <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									
B.	Time the interview started	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>H</td><td>H</td><td>M</td><td>M</td><td>AM/PM</td><td></td> </tr> </table>							H	H	M	M	AM/PM	
H	H	M	M	AM/PM										
C.	State:													
D.	LGA:													
E.	LGA Code:													
F.	School name:													
G.	School EMIS code:													
H.	School type:	Government – Public..... Government – Islamiyya IQTE :												
I.	Assessor name:													
J.	Assessor code:													
K.	Is the Head Teacher or Assistant Head Teacher present at school today? [IF NO, ONLY COMPLETE QUESTIONS 1-8 IF YOU ARE ABLE TO GATHER THE INFORMATION. DO NOT COMPLETE THE HEAD TEACHER (ASSISTANT HEAD TEACHER) INTERVIEW QUESTIONS.]	A'a (No): I (Yes):												
L.	Head Teacher's (or Assistant Head Teacher's) gender:	Mace (Male): Namiji (Female):												

SCHOOL CHARACTERISTICS

1.	Does this school have a library?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
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2.	Does this school have electricity?	A'a (No): <input type="checkbox"/>
		I (Yes): <input type="checkbox"/>
		Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
3.	Does this school have drinking water for pupils?	A'a (No): <input type="checkbox"/>
		I (Yes): <input type="checkbox"/>
		Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
4.	Does this school have functioning toilets for boys and girls?	A'a (No): <input type="checkbox"/>
		I (Yes): <input type="checkbox"/>
		Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>

PUPIL ENROLLMENT (consult register) - ONLY INCLUDE ENROLLMENT FOR THE SHIFT BEING ASSESSED

PRIMARY 2 OR STAGE 1		
5a.	How many BOYS are registered for Primary 2/Stage 1?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
5b.	How many BOYS in Primary 2/Stage 1 are absent TODAY?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
5c.	How many GIRLS are registered for Primary 2/Stage 1?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
5d.	How many GIRLS in Primary 2/Stage 1 are absent TODAY?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
PRIMARY 3 OR STAGE 2		
6a.	How many BOYS are registered for Primary 3/Stage 2?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
6b.	How many BOYS in Primary 3/Stage 2 are absent TODAY?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
6c.	How many GIRLS are registered for Primary 3/Stage 2?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
6d.	How many GIRLS in Primary 3/Stage 2 are absent TODAY?	<input type="text"/> Tick if information not available: <input type="checkbox"/>

TEACHER INFORMATION

PRIMARY 2 OR STAGE 1		
7a.	How many teachers teach PRIMARY 2/STAGE 1 ?	Male: <input type="text"/> Female: <input type="text"/> Tick if information not available: <input type="checkbox"/>
7b.	• How teachers teach PRIMARY 2/STAGE 1 HAUSA ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
7c.	• How many teachers who teach PRIMARY 2/STAGE 1 HAUSA are absent TODAY ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
7d.	• How many teachers teach PRIMARY 2/STAGE 1 MATHEMATICS ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
7e.	• How many teachers who teach PRIMARY 2/STAGE 1 MATHEMATICS are absent TODAY ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
PRIMARY 3 OR STAGE 2		

8a.	How many teachers teach PRIMARY 3/STAGE 2 ?	Male: <input type="text"/> Female: <input type="text"/> Tick if information not available: <input type="checkbox"/>
8b.	• How many teachers teach PRIMARY 3/STAGE 2 HAUSA ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
8c.	• How many teachers who teach PRIMARY 3/STAGE 2 HAUSA are absent TODAY ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
8d.	• How many teachers teach PRIMARY 3/STAGE 2 MATHEMATICS ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
8e.	• How many teachers who teach PRIMARY 3/STAGE 2 MATHEMATICS are absent TODAY ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
8f.	• How many teachers teach PRIMARY 3/STAGE 2 ENGLISH ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>
8g.	• How many teachers who teach PRIMARY 3/STAGE 2 ENGLISH are absent TODAY ?	<input type="text"/> Tick if information not available: <input type="checkbox"/>

HEAD TEACHER (ASSISTANT HEAD TEACHER) INTERVIEW QUESTIONS

Only ask these questions of the Head Teacher or Assistant Head Teacher.

9.	Me nene muƙaminki/ka a wannan makaranta? What is your position at this school?	Shugaban makaranta (Head Teacher): <input type="checkbox"/> Mataimakin shugaban makaranta (Assistant HT): <input type="checkbox"/>
10.	Me nene mafi girman shaidar ilimi da kika/ka mallaka? What is your highest professional qualification?	Babu ko ɗaya (None) <input type="checkbox"/> Grade II <input type="checkbox"/> NCE <input type="checkbox"/> B.Ed. <input type="checkbox"/> PGDE (Post-Graduate Diploma in Education) <input type="checkbox"/> M.Ed. <input type="checkbox"/> Suransu (Other) <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>
11.	Adadin shekaru da kika/ka ɗauka kina/kana shugabancin makaranta tun lokacin da kika/ka fara aikin malanta. For how many years have you been serving as a Head Teacher throughout your teaching career?	Adadin shekaru (Years): <input type="text"/> Adadin watanni (Months): <input type="text"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/> [Enter the number of years in total, not just at this school. If less than one year, enter 0 for years. Then enter the number of months. Do NOT enter the number of months <u>unless</u> the Head Teacher has less than 1 year of experience.]
12.	Ko ki/ka na koyar da azuzuwa a wannan makaranta? Do you regularly teach classes at this school?	A'a (No): <input type="checkbox"/> I (Yes): <input type="checkbox"/> Ban sani ba/Ba amsa (Do not know/No response): <input type="checkbox"/>

13.	<p>13a. Shin makarantar ki/ka tana da isassun kayan koyar da HAUSA a fananan azuzuwa?</p> <p>13b. Shin makarantar ki/ka tana da isassun kayan koyar da INGILISH a fananan azuzuwa?</p> <p>13c. Shin makarantar ki/ka tana da isassun kayan koyar da LISSAFI a fananan azuzuwa?</p> <p>Does your school have adequate teaching and learning materials for teaching Hausa/English/mathematics in the early grades?</p>		A'a (no)	I (yes)	Ban sani ba/Ba amsa ba (Do not know/no response)	
		13a. Hausa				
		13b. Inglishi				
		13c. Lissafi				
14.	<p>14a. Ko kin/ka taɓa samun horo kan yadda za ki/ka taimaki malami wajen koyar da HAUSA?</p> <p>14b. Ko kin/ka taɓa samun horo kan yadda za ki/ka taimaki malami wajen koyar da INGILISHI?</p> <p>14c. Ko kin/ka taɓa samun horo kan yadda za ki/ka taimaki malami wajen koyar da LISSAFI?</p> <p>Have you ever received specific instruction on how to support teachers to provide instruction in Hausa/English/mathematics?</p>		A'a (no)	I (yes)	Ban sani ba/Ba amsa ba (Do not know/no response)	
		14a. Hausa				
		14b. Inglishi				
		14c. Lissafi				
15.	<p>15a. Yaya za ki/ka auna fwarewar dalibanka a HAUSA: da rauni, da dama, da kyau kwarai?</p> <p>15b. Yaya za ki/ka auna fwarewar dalibanka a INGILISH: da rauni, da dama, da kyau kwarai?</p> <p>15c. Yaya za ki/ka auna fwarewar dalibanka a LISSAFI: da rauni, da dama, da kyau kwarai?</p> <p>How would you rate the skills of your pupils in Hausa/English/mathematics: Weak, Average or Strong?</p>		Da rauni (Weak)	Da dama (Average)	Da kyau kwarai (Strong)	Ban sani ba/Ba amsa (Do not know/No response)
		15a. Hausa				
		15b. Inglishi				
		15c. Lissafi				
M.	Time the interview ended					
		H	H	M	M	AM/PM

Assessor's initials:

