



EVALUATION

Baseline Evaluation Report: Phase III of the Food for Education Program in Sierra Leone

September 2016

This publication was produced at the request of the United States Department of Agriculture. It was prepared independently on behalf of Catholic Relief Services.

BASELINE EVALUATION OF THE FOOD FOR EDUCATION PROJECT (PHASE III) IN SIERRA LEONE

Program: McGovern-Dole International Food for Education and Child Nutrition

Agreement Number: FFE-636-2015/018-00

Funding Year: Fiscal Year 2015

Project Duration: 2015-2018

Implemented by: Catholic Relief Services

Evaluation Authored by: Catholic Relief Services

September 12, 2016

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.

Accessibility Note: An accessible version of this report can be made available upon request by emailing FAS.monitoring.evaluation@usda.gov.

CONTENTS

Baseline Evaluation Report: Phase III of the Food for Education Program in Sierra Leone	I
Contents.....	4
Table of Figures	5
List of Tables	6
Acronyms.....	7
Executive Summary.....	8
Background of the project.....	8
Evaluation Purpose and Evaluation Questions.....	8
Evaluation Design, Methods, and Limitations.....	9
Main findings	10
Conclusion and Recommendations.....	11
Introduction.....	17
Country Context.....	17
Project Background.....	18
Intervention Logic.....	19
Evaluation Purpose & Questions.....	21
Evaluation Purpose.....	21
Evaluation Questions	21
Evaluation methods.....	21
Sampling and Sample Size.....	22
Data Quality, Management, and Analysis.....	25
Lessons Learned and Limitations	26
Findings	27
What is the status of the main strategic objectives of the project?	27
What is the starting status of the identified project performance indicators?	50

What are the determinants of school attendance?	52
How appropriate is the design to the context?	59
How could integration of the two strategic objectives be enhanced or further leveraged to deepen positive program results?	60
Conclusions & Recommendations	60
Annexes	67
Annex A. Scope of Work	67
Annex B. Data Collection Tools	68

TABLE OF FIGURES

Figure 1 Results Framework for the FFE III Program	19
Figure 2. Mean and Median scores in Phonemic Awareness (out of 10)	29
Figure 3 Mean and Median scores on the phonemic awareness word list test	29
Figure 4. Teacher attendance rate on the day of the survey.	32
Figure 5 Availability of school supplies and materials	33
Figure 6 Availability of desks and benches in observed classrooms	33
Figure 7 Availability of text books or readers in observed classrooms	34
Figure 8 Scatter plot showing enrolment in class I and the number of Class I English Texts available	35
Figure 9 Availability of learner materials	35
Figure 10 Area 1: Teachers Demonstrate good instructional practice	37
Figure 11. Area 2 Teacher uses a variety of pupil assessment techniques	38
Figure 12 Teachers' self-assessment of knowledge and skills in various teaching techniques	39
Figure 13 Percentage of students showing attentive behaviors in class	40
Figure 14 Hunger status of children	40
Figure 15 Average student attendance rate on day of survey	41
Figure 16 Percentage of 6-12-year-old in the population reported being attending school	42
Figure 17 Main reason why child aged 6-12 years were not attending school	42
Figure 18 Status of School Infrastructure	44
Figure 19 Status of water facilities in observed schools	44
Figure 20 Status of toilet facilities in observed schools	45
Figure 21 Students' knowledge of good health and hygiene	46

Figure 22 Cook's knowledge of safe food preparation and storage practices.....	47
Figure 23 Food groups contained in students' diet on the day prior to the survey.....	48
Figure 24 Access to Preventative Health Services in project schools	49
Figure 25 Distribution of responses for Doers and Non-Doers on Question "Do you think your child will be successful in life if they don't attend school?"	53
Figure 26 Distribution of responses for Doers and Non-Doers on Question "How bad a problem is it if a child does not go to school?"	54
Figure 27 When a child goes to school does that mean that he or she will get a good paying job or a successful business?	54
Figure 28 Responses by Doers and Non-Doers to the Question "To what degree does a child completing school help make you (respondent) a better person?"	55
Figure 29 Responses by Doers and Non-Doers in Social acceptability questions.....	55
Figure 30 Responses by Doers and Non-Doers on the Question: "Do you think it is sometimes God's will that children don't go to school.....	57
Figure 31 Responses by doers and non-doers on the disadvantages of schooling	59

LIST OF TABLES

Table 1 : Number of sample pupils and schools allocated by chiefdom.....	23
Table 2 Number of sample households by chiefdom.....	24
Table 3 Response Rates for different units	24
Table 4. Percentage of students who answered comprehension questions by class and gender	28
Table 5 Number of letters identified correctly	30
Table 6 Scoring guidelines for teacher observations	36
Table 7 Availability of kitchen equipment.....	49
Table 8 Key Performance Indicators: Baseline Value and End of Project Targets.....	50

ACRONYMS

CRS	Catholic Relief Services
CSR	Country Status Report (on Education)
CTA	Community Teacher Association
DEO	District Education Office
DTM	Diagnostic Teaching Methods
FFE	Food for Education
ILA	International Literacy Association
M&E	Monitoring and Evaluation
MC	Mother's Club
MEST	Ministry of Education, Science and Technology
MICS	Multiple Indicator Cluster Survey
NP	Northern Polytechnic
PQTR	Pupil Qualified Teacher Ratio
PTR	Pupil-Teacher Ratio
SCR	School Census Report
SILC	Savings and Internal Lending Committee
SMherC	School Management Committee
TALLE	The Association of Language and Literacy Educators
TLM	Teaching and Learning Materials
USDA	United States Department of Agriculture
WAEC	West African Examination Council
WASSCE	West African Senior Secondary Certificate Examination
WFP	World Food Programme

EXECUTIVE SUMMARY

In Sierra Leone literacy levels among children in primary schools are low and the quality of schooling and education is poor. In addition, many children suffer from malnutrition, which in turn affects their cognitive development. Schools are a good setting to improve the literacy skills and nutritional and health status of students, and the Food for Education (FFE) Program sponsored by the United States Department of Agriculture, aims to do that.

BACKGROUND OF THE PROJECT

Catholic Relief Services (CRS) has been implementing the United States Department of Agriculture's Food for Education Program (FFE) since 2008. The project has been implemented in selected chiefdoms of Koinadugu district in Northern Sierra Leone, and its key objective is to reduce hunger and improve literacy for its beneficiaries. Implementation has been in 3 different phases (I, II, and III).

Phase III, which is the focus of this baseline evaluation, runs from December 2015 to September 2018. The two main goals of the FFE III project are: (I) improved literacy of school-age children and (II) improved health and dietary practices of students and communities. Under goal I (improved literacy), there are three sub-objectives (improved quality of literacy instruction, improved student attentiveness, and improved student attendance) and multiple activities (e.g. teacher training, school feeding, provision of teaching and learning materials). Under goal II (improved health and dietary practices) the sub-objectives are to increase hygiene practices of students and cooks, increase knowledge of safe food preparation and storage practices, increase knowledge of nutrition, increase access to clean water and sanitation services, and increase access to food storage tools and equipment. The project hopes to achieve these objectives primarily through training, setting up of WASH clubs, and provision of supplies and WASH facilities.

EVALUATION PURPOSE AND EVALUATION QUESTIONS

The purpose of this baseline evaluation is to establish the current status of the strategic objectives of the project and serve as a benchmark to gauge the success of the intervention. The main evaluation questions were:

- I. What are the characteristics of students, schools, and communities at the start of FFE III? What is the starting point of the identified strategic objectives?

2. What is the starting status of the identified project performance indicators?
3. What are the determinants of school attendance?
4. How appropriate is the design to the context and to what extent is the program likely to have to adopt different approaches in different communities?
5. How could integration of the two strategic objectives be enhanced or further leveraged to deepen positive program results

Evaluation Design, Methods, and Limitations

The evaluation utilizes a mixed-methods approach, consisting of quantitative and qualitative approaches that complement each other. These methods included a desk review of project-related documents, interviews with key informants (head teachers, chair of school management committees, cooks etc.), focus group discussions with local stakeholders, and household surveys. The evaluation also included reading assessment of students, classroom and teacher observation and pupils' survey in a representative sample of schools.

The evaluation employed a two-stage cluster sampling approach where evaluators randomly selected schools (from within a list of project schools) as clusters and sampled pupils and teachers within schools. Schools were selected using a proportional to size approach from the intervention chiefdoms. Households with children of school going age were randomly selected from within school communities, but no attempt was made to match students and households. Children in classes 2 and 3 were selected to participate in the reading assessment survey. Enumerators randomly selected 15 students in each of those grades to participate in the reading assessment. Sample sizes were derived to ensure we had the necessary statistical power to drive our analysis. In total, 60 schools were sampled and 900 households were surveyed; 800 students were sampled from classes 2 and 3 to take the reading assessment test.

There were some limitations to the evaluation methods. For one, we could only select from beneficiaries (students, teachers, cooks etc.) who were present in the school on the day of the survey. Since student absenteeism is relatively high, it is possible that we may have introduced some selection bias into our sample if those children who were absent were different in some meaningful way from those who are not. Second, because we had to employ a large number of enumerators, inter-rater reliability is a valid concern as different enumerators may interpret observations differently. Finally, because we did not visit schools that were not part of the project (no controls), the analysis in this and future surveys can make limited arguments about changes caused by the project.

MAIN FINDINGS

The table below summarizes the status of key performance indicators related to the project at the time of the baseline survey (June 19-29th 2016). The evidence shows that the literacy levels of students were quite low as only about 8 percent of children in class 2 could read and understand grade-level text. About half of students were found to be attentive or engaged in class, and only about 27 percent of teachers used a variety of assessment techniques to test for children's understanding, which is the foundation of the diagnostic teaching method. Absenteeism was relatively high as only about two-thirds of students attended school regularly (present for more than 80 percent of school days). At baseline, levels of all key indicators were quite low. School meals, which were a feature of Phase I and II had not started at the time of survey.

INDICATORS	Baseline		Comment
	Girls	Boys	
Percent of students who, by the end of two grades of schooling, demonstrate that they can read and understand the meaning of grade level text (girls/boys)	8.3	7.9	Percent of class 2 students who scored at least 80 percent in a reading comprehension test
Percent of students in target schools who are identified as attentive or very attentive during class/instruction (girls/boys)	49	52	Composite index of attentive behaviors
Number of teachers in target schools who demonstrate use of new and quality teaching techniques or tools as a result of USDA assistance			The baseline found that 27 percent of teachers observed demonstrated the use of variety of assessment techniques, which is a foundation of DTM
Number of students regularly (80%) attending USDA supported classrooms/schools	9,169	9,776	From monitoring data. This translates to about two-thirds of students
Number of students enrolled in project supported schools	13,715	14,748	As of April 2016. From monitoring data
Number of Parent-Teacher Associations (PTAs) or similar 'school' governance structures supported as a result of USDA assistance	1,728 SMCs 3,840 Mother clubs		From monitoring data.
Percent of school-age children receiving a minimum acceptable diet	55%	52%	Percent of school-aged children who report consuming at least 4 out of 7 food groups on the day

			prior to the survey, as defined by the FFE Indicator Handbook.
Percent of students in target schools who achieve a passing score on a test of good health and hygiene practices	55%	44%	Percent of students who could name at least 6 of 10 good hygiene practices
Number of WASH Clubs formed by CRS	0		45 percent of head teachers interviewed during baseline revealed that the school did already have a WASH club
Percent of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage	71%		Percent of cooks who could name at least 5 of 10 safe food preparation practices
Number of students receiving deworming medication(s)	28,463		From CRS Monitoring data
Number of schools using an improved water source	102		From CRS Monitoring data
Percent of students in target schools who indicate that they are hungry or very hungry during the school days	94%		Reported being very hungry or somewhat hungry at the time of the survey

Conclusion and Recommendations

Status of main strategic objectives

The two main strategic objectives are to improve literacy among primary school students and to increase the use of good health and dietary practices.

Improved literacy

Despite some progress in the reading skills of children since the FFE started doing work in this area, the literacy levels of students are still very low. Less than 10 percent of children in class 2 could read and understand grade level text. And students scored poorly in phonemic awareness, familiar word reading, and comprehension.

Despite two prior rounds of the FFE project, schools were poorly resourced in terms of school supplies and teaching and learning materials; and where materials exist they are not being used properly. In fifty-six percent of classrooms observed there were either no textbooks or only the teacher had one. Only 35 percent of schools had teacher guides provided by the Ministry of Education. The school environments, especially the provision of water and sanitation facilities, were also very poor.

Classroom observations of teachers show low levels of proficiency in basic teaching skills such as lesson preparation, using a variety of teaching methods, and checking for children's understanding during the class. Teachers themselves acknowledged that they know very little about how to teach students how to read – 81 percent reported that they lack the skills to teach word recognition or phonics, 86 percent could not teach fluency; and 75 percent could not teach vocabulary or comprehension.

Based on findings, the following are recommended:

- Prioritize improving the skills of teachers to teach reading, focusing on the five components of reading. Teachers will need ongoing support and not just one-off training as their skill levels are quite low. The DTM training curriculum is quite broad and needs to be simplified and streamlined taking into account that most teachers only have a secondary school degree. Training should also include specific guidelines on how to integrate teaching and learning materials in their teaching, and where possible some scripted lessons should be provided until teachers become more proficient in teaching.
- CRS should consider lowering the end of project target for the reading indicator because of very low baseline values. At baseline only 8 percent of children could read with understanding at the end of class 2 and the 3-year target is 40 percent. This magnitude of change in this indicator is unlikely.
- Continue supporting teachers to get certified as teachers with teaching certificate perform better in general classroom practice. However, Northern Polytechnic should also be encouraged to integrate specific skills on how to teach reading into their curriculum.
- Define minimum standards for the availability of school supplies and facilities in collaboration with the MEST in Koinadugu, and track the percentages of schools that meet minimum standards. This also means that CRS will focus their distribution of supplies in bringing schools below the minimum standards up to standard. These standards should be set for all supplies and services to be provided by CRS. Where a MEST standard already exists, then CRS should adopt those standards.
- Prioritize infrastructure and supplies that impact student safety and well-being. These include schools that have no roof, no safe source of water, no working toilet facilities and no hand-washing stations. Soap (or other cleaning agents) and water should be mandatory in all schools.
- CRS should work closely with schools and MEST to ensure that schools receive approval by MEST. It is the only way to ensure that schools will continue to receive support after the FFE III program ends. As of the baseline, only 27 percent of project schools are approved by MEST. Fifty-seven percent of schools have not applied for approval. While it is acknowledged that the approval process can be long and cumbersome, schools should be encouraged to apply. Given the long history of CRS involvement in these schools and the demand for schools in these areas, there is a strong case to be made for approval of schools. CRS should make this the focus of its advocacy with the government.

Increased use of good health and dietary practices

The CRS FFE III project is promoting improved knowledge of good health and dietary practices in order to prevent the spread of disease and illnesses that prevent students from attending schools. During the baseline, children were asked to name practices that promote good health and hygiene, and just under half of them could name 6 of 10 good practices. The least likely to be mentioned were: putting trash into bins, hair braiding and keeping toilets clean.

Eighty-two percent of food preparers and cooks reported having been trained on safe food preparation and storage practices. Seventy-one percent of cooks were able to list at least 5 of the 10 safe food preparation practices. The least likely to be mentioned were: wearing kitchen apron or apparel, keeping kitchen free from animals, and putting clean utensils on a rack or pallet. Only 18 percent of kitchens observed had a handwashing station with water and soap available.

It is recommended that:

- Key hygiene messages are reinforced throughout the curriculum and in extra-curricular activities
- Schools should have supplies that enable children to practice good hygiene. For example, handwashing stations should be present in all schools and kitchens and there should be receptacles for trash. Keeping school facilities clean should be a communal responsibility, and CRS should work with schools to develop strategies to maintain good hygiene practices.
- In terms of infrastructure improvement, CRS should prioritize the provision of safe water and sanitation facilities
- Minimum standards for food preparation and storage tools and equipment should be developed in collaboration with communities and work together with them to ensure that schools meet the standard
- CRS defines actions to be taken by schools that do not receive the required preventative health services (e.g. deworming and vitamin A supplementation). At a minimum, CRS should provide a list of project schools to implementing agencies so that they are aware of the existence of these schools. Schools are more likely to receive these services if they have been approved by MEST.

Starting status of key performance indicators

The starting points of key performance indicators are quite low, and while the FFE III projects cover a number of different activities, the focus on implementation should be on activities that will improve the key performance indicators.

It is recommended that:

- Project activities and attention should be directed towards activities that improve the key performance indicators
- The number of key performance indicators be reduced to help focus project activities to the most critical outputs or outcomes.
- Key performance indicators focus on the percentages of beneficiaries that meet a certain target rather than the numbers of such beneficiaries. This allows for external evaluators to be able to report on indicators without relying on monitoring data.

Determinants of school attendance

From the households surveyed, 83 percent of school-aged children were in school and 17 percent were out of school. Of those enrolled, many children do not attend regularly. Monitoring data maintains that only two-thirds of students attend school at least 80 percent of the time and on the day of the survey only about 74 percent of enrolled students were in attendance. The main reasons for why children were not enrolled in school were that schooling was expensive and children's labor was needed in the home or on the farm. Many parents were also choosing to send their boys to Qur'anic school as an alternative to formal schooling.

The evaluation included a barrier analysis to help determine what drives parent's behaviors to enroll their child in school by looking at differences between 'doers' and 'non-doers'. What we found was that compared to non-doers, doers were significantly more likely to: (i) link their child's future success to school attendance; (ii) attribute severe negative consequences for not attending school; (iii) be more optimistic about the likelihood that schooling will lead to better jobs and businesses; (iv) have a larger network of people who support and agree with the decision to enroll children in school; (v) find enrolling children in school easier; (vi) believe that it was not God's will for children to not attend school.

It is recommended that:

- Behavior change messages focus on those areas where doers are different from non-doers e.g. in highlighting the positive benefits of schooling
- Behavior change messages target not just parents of school-aged children, but also others in the communities who can influence the parent's decisions
- Programs and activities should focus on ways to reduce costs (direct and indirect) of schooling or provide opportunities for increased income. The latter may be beyond the scope of the program, but efforts can be made to link project communities with other programs that provide economic opportunities for communities.

Appropriateness of the design to the context

Overall, the design of the FFE III project is relevant for the national and local context. Included in the national priorities of GOSL are: providing school meals, improving the literacy and numeracy skills of students, and improving skills and knowledge of teachers. The CRS FFE III project supports and contributes to these national priorities.

Discussions with local groups and community members in project chiefdoms also reveal that construction and support of schools is one of their top 3 priorities. In terms of school support, the focus was mostly on construction, but having more qualified teachers was mentioned by a few people as one of the top priorities.

It is recommended that:

- CRS provide opportunities for MEST and donor partners to visit schools so they understand the conditions of schools and education in these areas, which may make them more inclined to provide additional support
- Make the link between all the various activities and their contribution to improved learning. Teachers need specific training and ongoing coaching on reading instruction, and this support should take into account the literacy levels and English language proficiency of teachers themselves.
- Work with the communities and parents should also be geared towards how they can contribute to improved learning, and not just their contribution to construction and school feeding. Even parents who are not literate themselves can tell stories to their children, which helps develop oral language. They can also provide dedicated time and space for their children to read after school.
- Children lose a lot of what they learned during the long vacations. CRS might consider programs during the long holidays that will allow teachers and children to continue learning.

Enhancing the integration of two strategic objectives to deepen positive program results

The two strategic objectives are linked in the sense that improving the health of students and teachers could lead to reduced absenteeism from school. For example, there are research studies that have shown that deworming school children improve overall health and reduced absenteeism, and these

benefits continued over a long period of time.¹ Handwashing with soap is also known to reduce the incidence of diarrhea and other water or food-borne diseases.

The program already recognizes the links between the objectives in its results framework. Perhaps what is remaining is for these messages to be fully integrated into the project such that schools and surrounding communities also understand the link.

The Ministry of Health and Sanitation (MOHS) has a school health division, but it is unclear how the FFE III program links with the MOHS either at the national level or at the district level to promote school health programming. It is recommended that CRS explores links with MOHS in addition to MEST.

Another way to integrate the two programs is to develop reading materials for students that incorporate key health messages that the project wants to promote in a fun and engaging way.

In summary, having been implementing this FFE program over eight years in Koinadugu, CRS has a unique opportunity to make an impact in the educational outcomes of young children in project schools. The organization has learned from its experiences over the last two phases of the program; there is now an opportunity for CRS to leverage the lessons learned and the relationships built over the years to change the course of schooling for young children in targeted schools.

¹ For a summary of benefits of deworming, see: J-PAL Policy Bulletin. 2012. "Deworming: The Best Buy for Development." Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.

INTRODUCTION

COUNTRY CONTEXT

Sierra Leone is one of the poorest countries in the world, ranking 181 out of 188 countries in the 2014 UNDP Human Development Index.² Education performance is low and progress in achieving learning outcomes, in particular, has been slow. A national assessment of reading in the early grades showed that many children could not read simple words or comprehend simple passages after three years of schooling.³ It is also one of the most food insecure countries in the world, ranking 112 of 113 countries on the 2016 Global Food Security Index from the Economic Intelligence Unit.⁴

Part of the reason for the poor social and economic conditions is that the country was engulfed in a civil war lasting over a decade that officially ended in 2001. Unfortunately, in 2014, even as Sierra Leone was trying to rebuild its social and economic systems, the country was hit by the largest Ebola outbreak the world has ever seen. The first confirmed case was in February 2014, and by December 2015 the country had recorded an estimated 8,700 confirmed cases and over 3,500 confirmed deaths. The government took stringent actions to try to curb the disease, including delaying the reopening of schools for almost 7 months. The Ebola impact had a devastating effect on the economy, which is still being felt today, and the country remains very fragile.

In response to these challenges, the United States Department of Agriculture (USDA) has made Sierra Leone one of its priority countries for the McGovern-Dole Food for Education (FFE) Programs. The FFE program helps support education, child development and food security in low-income, food-deficit countries around the globe. Its key objective is to reduce hunger and improve literacy and primary education, especially for girls, by providing school meals, teacher training, and related support.

² <http://hdr.undp.org/sites/default/files/ranking.pdf>

³ (Montrose International, 2014)

⁴ <http://foodsecurityindex.eiu.com/Country/Details#Sierra%20Leone>

PROJECT BACKGROUND

Catholic Relief Services (CRS) has been implementing the Food for Education (FFE) Program in Koinadugu District in Sierra Leone since 2008. Koinadugu was chosen because of the district's food insecurity status, high malnutrition rates amongst children under age five, and below average education performance. The FFE program has been implemented in three distinct phases.

Phase I: The first phase of the FFE program (FFE I) ran from 2008 to 2012 in four chiefdoms in Koinadugu - Sulima, Mongo, Neini, and Neya. These chiefdoms were chosen because they were the most marginalized in the district. Between 2008 and 2012, the Phase I program distributed almost 1,500 metric tons of food, corresponding to 5,780,201 meals served to 18,610 students. The project also included take-home rations for girls in upper primary and over 5,000 girls benefitted from this. In addition to food aid, the Phase I FFE project trained school management committees (SMCs) and improved on school infrastructure. The Phase I project also included distribution of teaching and learning materials and furniture for schools.

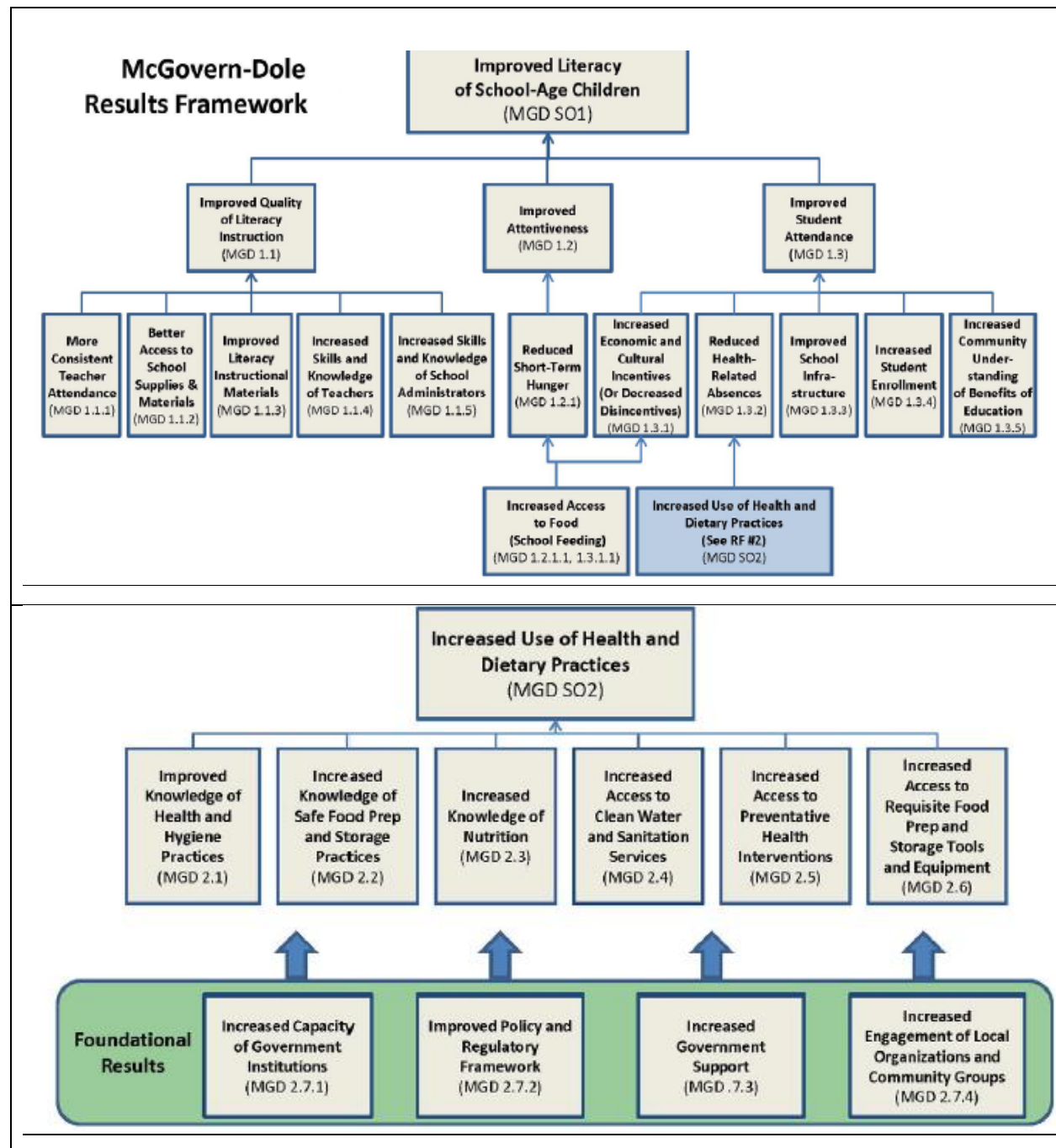
Phase II: The second phase of the program (FFE II) began in September 2012 and ended in January 2016. In Phase II the program expanded to include a fifth chiefdom (Dembelia Sinkunia) and to include an additional 75 schools from existing program chiefdoms. Phase II also included additional activities such as in-service teacher training on Diagnostic Teaching Methods (DTM) to improve on literacy instruction and the establishment of Savings and Internal Lending Committees (SILC) to help strengthen the financial status of households. The food aid component continued in Phase II using the same two modalities: (1) two in-school meals; and (2) take-home rations for girls in upper primary who maintain at least an 85 percent attendance rate. The Ebola outbreak created a public health emergency that stalled the implementation of Phase II.

Phase III: Phase III, which is the focus of this baseline evaluation, will continue in the same five districts in Koinadugu district and will run from December 2015 to September 2018. The Phase III project remains essentially the same as Phase II, except for a few changes. The two most important of these are: (1) providing one school meal a day as opposed to the two meals provided in Phase II, in order to align with the proposed GOSL school meal program; and (2) intensifying the support to teachers by providing literacy coaches who will provide additional support to teachers in between training workshops.

INTERVENTION LOGIC

The FFE program is a school feeding program with two main goals: (I) improved literacy of school-age children and (II) improved health and dietary practices of students and communities. Figure I illustrates the intervention logic of the FFE III program.

Figure I Results Framework for the FFE III Program



Under goal I (improved literacy), there are three sub-objectives (improved quality of literacy instruction, improved student attentiveness, and improved student attendance) and multiple activities (e.g. teacher training, school feeding, provision of teaching and learning materials). CRS summarizes the theory of change of the FFE III project as follows:

IF the quality of literacy instruction is improved AND children, having received school meals, have their short-term hunger reduced AND their attentiveness and attendance improved THEN the literacy of school-aged children in the project area will be improved.

Also, IF students learn about improved health and hygiene practices at school AND cooks learn about safe food preparation and storage practices AND schools have improved access to clean water and sanitation sources AND students have increased access and knowledge to preventative health interventions AND food preparers have increased access to requisite food preparation and storage facilities, tools and equipment **THEN** the use of health and dietary practices will improve.

In the implementation of the FFE III, CRS will partner with local and international organizations such as the International Literacy Association (ILA), The Association of Language and Literacy Educators (TALLE), Northern Polytechnic, and Caritas. ILA will provide the literacy training for teachers and supervisors, TALLE will provide the coaching, Caritas will provide Life Skills Training, and Northern Polytechnic will offer teacher certification through a distance education program. Throughout the implementation, all parties will focus on the development of capacity in schools and communities and national and local government agencies and departments.

EVALUATION PURPOSE & QUESTIONS

EVALUATION PURPOSE

The purpose of the baseline evaluation was to. The evaluation was to determine the starting point of the performance indicators, establish a basis for comparing the situation at the midpoint and end of the program, and allow for making inferences as to the effectiveness of the program.

EVALUATION QUESTIONS

The main evaluation questions for the baseline were:

1. What are the characteristics of students, schools, and communities at the start of FFE III? What is the starting point of the identified strategic objectives?
2. What is the starting status of the identified project performance indicators?
3. What are the determinants of school attendance?
4. How appropriate is the design to the context and to what extent is the program likely to have to adopt different approaches in different communities?
5. How could integration of the two strategic objectives be enhanced or further leveraged to deepen positive program results?

EVALUATION METHODS

The baseline evaluation used a mixed methods approach combining quantitative surveys, focus group discussions, key informant interviews, and a barrier analysis.

The quantitative survey design consisted of a household survey, pupil survey with reading assessment, teacher and classroom observation, and school observation checklist.

The qualitative component had two parts: in-depth interviews with key informants (district education officials, head teachers, and cooks) and focus group discussions with community members. Insights from these qualitative interviews and discussions complemented data obtained through the surveys allowed us to examine certain topics in more depth.

SAMPLING AND SAMPLE SIZE

We employed a two-stage cluster sampling approach where we randomly selected schools as clusters and sampled pupils and teachers within schools. Households were selected from within school communities. The advantages of cluster sampling are that it is more economical, time-efficient, and easier to manage than a simple random survey. The disadvantage is that there may be reduced variability as pupils in a particular school tend to be similar and also there is potential for bias if the schools selected for inclusion are different from the population.

Sample Size

Pupils, teachers, households and food preparers were sampling units of the baseline survey. The sample sizes for the sampling units were computed using four (4) key indicators. FFE 2 final results were used for computing sample sizes for the sampling units.

Pupils

The formula below was used to compute the sample size for pupils:

$$n = \frac{4 \times p \times (1 - p) \times deeff \times 1.2}{(Margin\ of\ error)^2}$$

where,

- **n** is the required sample size (i.e. number of pupils to be surveyed)
- **4** is the factor required to achieve 95% level of confidence;
- **p** is the value of the key indicator; in this case, the '**percent of students identified as attentive during classroom activities (boy & girls) (0.62)**'⁵;
- **deff** (Design effect) is the factor by which the precision of the estimates of the key indicators decrease due to the sampling design, as compared to a survey that uses simple random sampling (2)⁶;
- **1.2** is the factor necessary to raise the sample size by 20% for the expected non-response⁷. This assumes 80% response rate;
- The margin of error (± 5 percentage points) i.e. Alpha $\alpha=0.05$.

Using the formula the sample size for pupils was estimated at 900.

The decision was made to sample no more than 15 children per school across all grades, which meant that we needed to have at least 60 schools in our sample.

⁵ FFE 2 endline result.

⁶ The design effect, estimated at 2, is chosen because of the large cluster sample size (i.e. 15 pupils per school).

⁷ The 20% non-response is assumed to increase the sample size sufficiently large to be able to detect an effect on the following groups: meals only, meals + THR, meals + SILC and nothing.

The schools were targeted for the following surveys:

- School observation checklist,
- Key informant interview with head teachers, SMCs, CTA & mothers club,
- Teacher & classroom observation.

Table I shows the allocation of sample pupils and schools by chiefdom.

Table I : Number of sample pupils and schools allocated by chiefdom

Chiefdom	No. of Schools	Proportion of school	Number of schools to sample	Adjusted number of schools to sample	Number of pupils to sample
Dembelia Sinkunia	18	0.09375	5.625	6	90
Mongo	43	0.223958	13.4375	13	195
Neya	37	0.192708	11.5625	12	180
Neni	65	0.338542	20.3125	20	300
Sulima	29	0.151042	9.0625	9	135
Total	192	1	60	60	900

The schools were selected by the systematic random sampling technique whilst the pupils were chosen by the simple random (ballot) method across five (5) grades (2 to 6) for the pupils' survey; 3 pupils in each grade yielded 15 pupils per school.

The reading assessment test was administered to only Grades 2 and 3 pupils, and the recommended number of pupils was 400 for each group of interest.⁸ To get to this number, 7 students were selected in each of classes 2 and 3 in the targeted schools.

Teachers

Simple random sampling method was used to select the teachers in each school. Two (2) were selected in each survey school – yielding **120** teachers – for the teacher and classroom observation.

⁸ RTI International (2009). EGRA Toolkit

Households

A sample of 900 households was selected in survey school communities; 15 households per community for the household survey.⁹ For the purpose of the baseline, households with children aged **3-18** years were considered for sampling. The number of sampled households per chiefdom is given in Table 2.

Table 2 Number of sample households by chiefdom

Chiefdom	No of clusters (school communities)	Number of households to sample
Dembelia Sinkunia	6	90
Mongo	13	195
Neya	12	180
Nieni	20	300
Sulima	9	135
Total	60	900

Focus Group Discussions (FGDs)

FGD were held in all survey clusters/school communities with community stakeholders including women and men; SILC and non-SILC households. Discussions were held separately for men and women. Each FGD had between 7 and 12 participants. Enumerators were instructed to select a wide range of community members including: community authority (chiefs, etc.), women's leaders and headmen, and men. They were not to include community members who had already been interviewed because of their membership in SMCs, Mother's Groups, etc.

Table 3 provides the response rates for schools, teachers, and students. Response rates were very high and ranged from 98 percent to 100 percent.

Table 3 Response Rates for different units

Group	Target number	Number of responses	Response rate
Schools	60	60	100%

⁹ There was no planned relationship between households and pupils surveyed, but there is likely to be some overlaps given that households were randomly selected from school communities.

Teachers	120	118	98%
Students	900	883	98%
Households	900	900	100%

Recruitment and Training of Enumerators

Twenty-eight (28) enumerators and six supervisors were recruited for the data collection. Most of the enumerators had participated in the midterm and final evaluations of the FFEI project, and as such had experience with the tools and methodology. All enumerators had at least a post-secondary qualification and many had participated in surveys and/or had taught in schools. All enumerators attended a 5-day training on the administration of the evaluation tools/questionnaires and general survey protocols in order to equip them to collect the appropriate and quality data for analysis. A particular area of focus on protocols was that of getting 'informed consent'. Training included role-playing in order to fully understand the administration of the tools and translation of keywords into the lingua franca (Krio) to help in the focus group discussions and pupil interviews. During the training, enumerators were able to practice administering the pupil survey and reading assessment questionnaire with pupils from schools neighboring the training center.

Following the training of data collectors, the survey tools (questionnaires) were pretested before adopted for the data collection. The pretesting gave enumerators an opportunity to practice administering the tools in 'real-life' situations and gave an opportunity to test the appropriateness of the questions.

DATA QUALITY, MANAGEMENT, AND ANALYSIS

The first step in ensuring that the evaluation produced good quality data was to write good questions. The tools used in this evaluation had been reviewed multiple times since many of them were used in previous evaluations. The new questions added also went through multiple reviews. In addition, the questionnaires and surveys were piloted in the field before full administration. During the administration of the survey, research supervisors visited enumerators in their various sites to ensure that data collection was proceeding as planned and to provide quality assurance to the evaluation process. The surveys were then entered into excel by a dedicated and experienced team of data entry clerks who had worked in previous evaluations. One of the researchers oversaw the data entry and cleaning of data. The cleaned data was then submitted to lead researcher for analysis. The analysis was done using the statistical software Stata 14. All programs created to analyze the data and produce tables have been saved so that the findings can be reproduced by other researchers.

LESSONS LEARNED AND LIMITATIONS

Like any research project, there were a number of limitations to the evaluation. Some of the constructs such as student attentiveness are difficult to measure and rely on subjective recall from teachers and/or classroom observation data. With different enumerators, there is a possibility that inter-rater reliability might be an issue, despite all attempts in the training to ensure consensus in measurement. Finally, with every questionnaire, there is a risk that the interviewees' interpretation and response to questions are not always what is intended by the interviewer. It is also possible that teachers change their behavior when they are being observed. So, the fact that there were observers in the room may cause the teacher to teach differently than they normally would.

FINDINGS

The findings in this section are reported according to the main evaluation questions. The data used in this analysis were collected between June 19th and June 29th, about a month before the end of the school year.

WHAT IS THE STATUS OF THE MAIN STRATEGIC OBJECTIVES OF THE PROJECT?

The project has two main strategic objectives and numerous sub-objectives, and the starting point of corresponding indicators are provided below.

MGD S.O.1 Improved Literacy of School-aged children

One of the main strategic objectives (SO) of the FFE III is to improve the literacy skills of children in the program. USDA's standard literacy indicator is the "percentage of children, who at the end of two grades of schooling, demonstrate that they can read and understand grade level text." Although the children in class 2 were the population of interest, children in class 3 were also sampled because previous assessments had shown that children in class 2 had minimal reading skills and scored zero in a number of the subtests. They were presented with a number of different subtests to assess their reading skills. However, to assess the above literacy indicator, we will be reporting on the results of the comprehension test; and have defined 'read and understand grade level text' as the percentage of students who get at least 4 of 5 questions correct on the reading comprehension test.¹⁰ Note however that because there are no counterfactuals or control groups of students, it will be difficult to attribute any changes in literacy to the effect of the FFE III project.

Our target number of students was 400¹¹ students from each of Class 2 and Class 3, which translated to approximately seven students per class in each of the 60 schools. Students were randomly selected from those who were present in class at the time of the survey. In total 818 students (409 in each class) took

¹⁰ The comprehension passages used were adapted from an early grade reading instrument developed by Prof. Johanna Kuyvenhoven for the Sierra Leone context

¹¹ Based on early grade reading assessments conducted in several countries around the world, it is estimated that 400 students are needed per group of interest (e.g. class). See: Early Grade Reading Assessment Toolkit (2009)

the reading assessment. Given high-level of student absenteeism on the day of survey, it is possible that our sample was biased if it turns out that students who were absent are different from those who were not. For example, if mostly lower-performing students were absent then our mean estimates would be higher than they are in the population.

Table 4 shows the percentage of boys and girls who answered 0 to 5 questions correctly. Most students (65.4 percent of girls and 59.5 percent of boys) did not attempt any of the comprehension questions because they could not read the passage. For a child to be reading and comprehending grade-level text, they need to get at least 4 of the 5 questions correct. Therefore at baseline, 7.9 percent of boys and 8.3 percent of girls in class 2 could read and understand grade level text. For class 3, the proportions were 15.1 percent of boys and 12.4 percent of girls.

Table 4. Percentage of students who answered comprehension questions by class and gender

Number correct	Class 2			Class 3		
	Boy	Girl	Total	Boy	Girl	Total
0	67.4	70.1	68.7	52.5	60.0	55.6
1	7.4	7.2	7.3	3.8	1.8	2.9
2	9.3	8.8	9.1	8.4	8.2	8.3
3	7.9	5.7	6.9	20.2	17.7	19.1
4	3.7	3.1	3.4	9.2	6.5	8.1
5	4.2	5.2	4.7	5.9	5.9	5.9

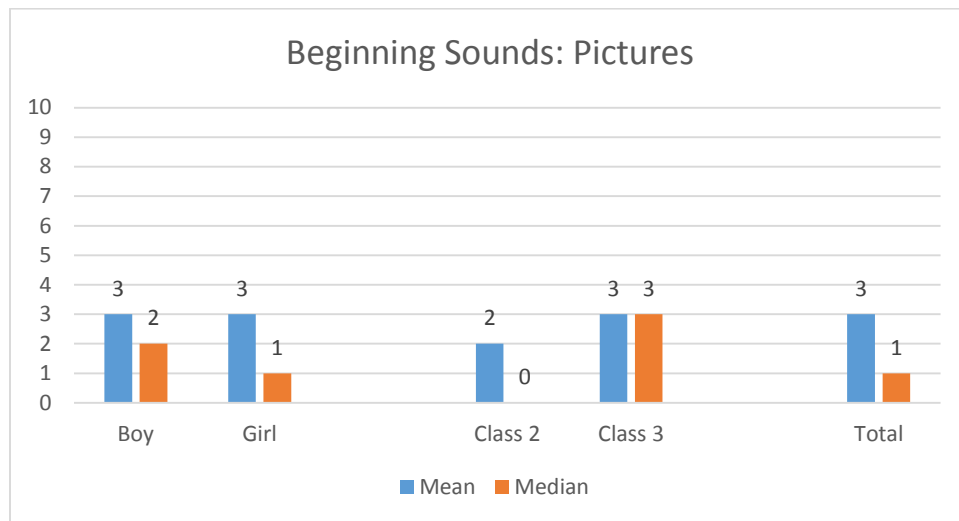
Because earlier assessments of children's reading already showed that most children in the early grades were not learning to read, we also conducted other reading subtests to understand whether children had mastered some of the other components of reading such as phonemic awareness and phonics.

These sub-tests includes:

Phonemic Awareness (PA)

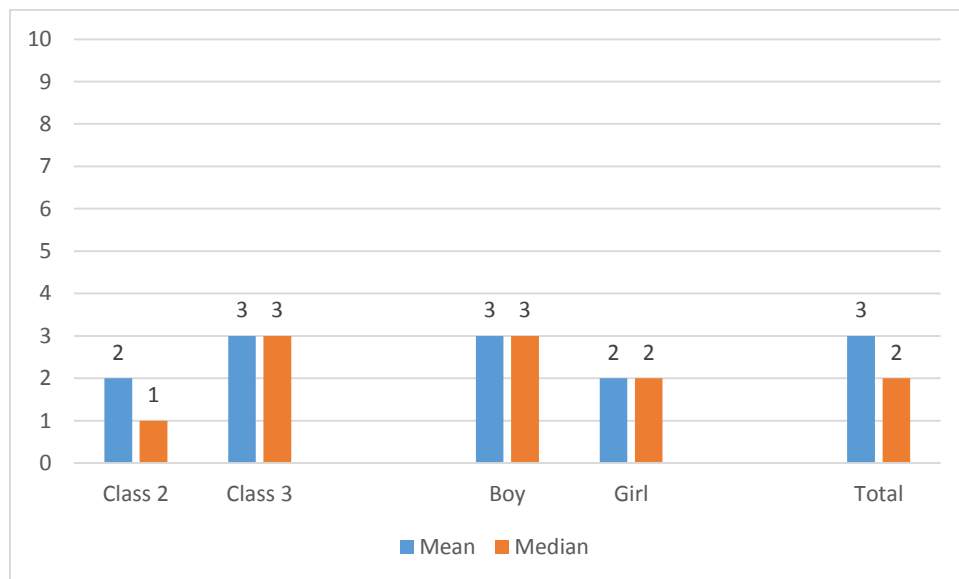
- Learner was given pictures of 10 common objects, told the names of the object, and asked to say the initial sound they hear.
- In general, students had difficulties with this task, but (as expected) class 3 students did better than class 2 students. The median score for class 3 was 3 out of 10 and for class 2 was 0 (see Figure 2).

Figure 2. Mean and Median scores in Phonemic Awareness (out of 10)



- In the second test of phonemic awareness, learner listened to a set of words read aloud and they had to say which word begins with a different sound. For example, they would hear the words “moon ball mouse” and asked to identify the word with the different beginning sound.
- Performance on this task was only slightly better than the previous PA test. The median correct for all students was 2 out of the ten lists.

Figure 3 Mean and Median scores on the phonemic awareness word list test

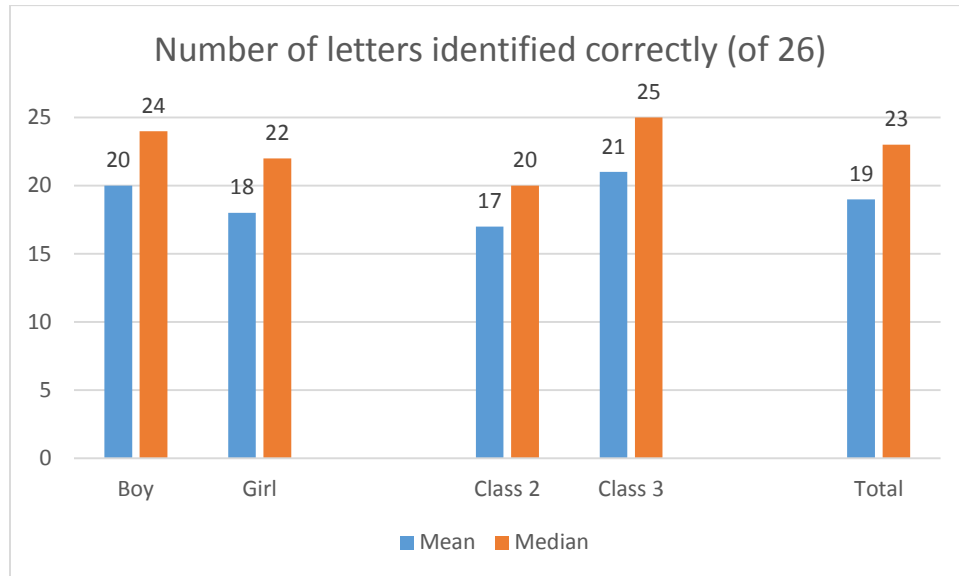


Alphabet Naming (ALN)

- Children were presented with a random list of the 26 letters of the alphabet (in mixed upper and lower case) and were asked to name the letters

- Students performed well on this task compared to others. The median number of letters correctly identified by class 2 learners was 20 and by class 3 learners 25. The median for boys was 24 compared to 22 for girls (Table 5).

Table 5 Number of letters identified correctly



Familiar Word Reading (FWR)

- Students were presented with a list of 40 familiar words and were asked to read the words. The test was discontinued if the student couldn't read any of the first ten words.
- Sixty-four percent of class 2 students and 44 percent of class 3 students had zero scores. The average number of words read correctly was 9 in class 2 and 12 in class 3. The median was 2 and 10 words correct respectively.

Reading Comprehension (RC)

- Students were presented with a grade-level passage, which they had to read, and then questions were asked about the passage.
- The result of the reading comprehension was already discussed above.

Listening Comprehension (LC)

- The assessor read a passage to the students and students then had to answer a few questions about the story they were read.
- On average students got 1 of 3 questions correct in the listening assessment. There was no difference between average score for boys and girls or between children in Class 2 or Class 3. The median correct was 2 for class 3 and 1 for Class 2.

To summarize, students performed best in alphabet naming, but struggled with all the other reading subtests including phonemic awareness (identifying sounds), reading familiar words, and the comprehension tests. Research shows that if students cannot perceive the sounds in spoken words (phonemic awareness), then they will have difficulty with learning to read. Another challenge is that students are learning to read in a second language even though they have not fully developed reading skills in their mother tongue.¹² While it is possible to teach English as a second language to young children, it does take skilled teachers using appropriate techniques to make this happen in a way that promotes learning.

MGD.1.1 Improve quality of instruction

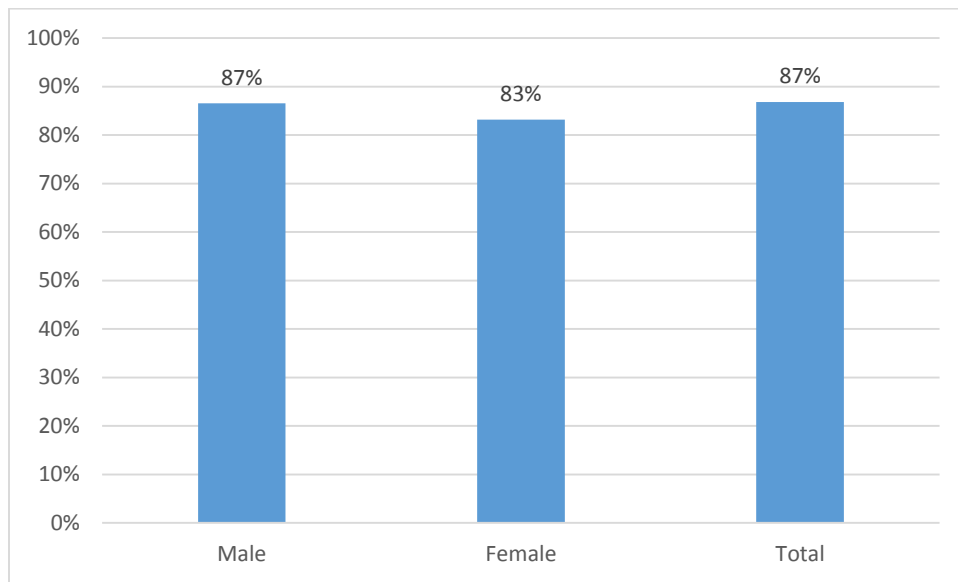
Improving the quality of literacy instruction is a major part of the implementation strategy of the FFE III program. The program aims to develop the skills of teachers in a number of ways including sponsoring teachers to acquire their teaching certificate from Northern Polytechnic; providing in-service training in Diagnostic Teaching Methods (DTM) designed by the by International Literacy Association (ILA); and coaching of teachers in literacy instruction by TALLE.

MGD 1.1.1 More consistent teacher attendance

The teacher attendance rate on the day of the survey was 87 percent overall and 83% for female teachers (see Figure 4).

¹² The official policy of MEST is that the national language commonly used in the school locality should be the language of instruction in classes 1–3. From class 4 onwards English is the language of instruction.

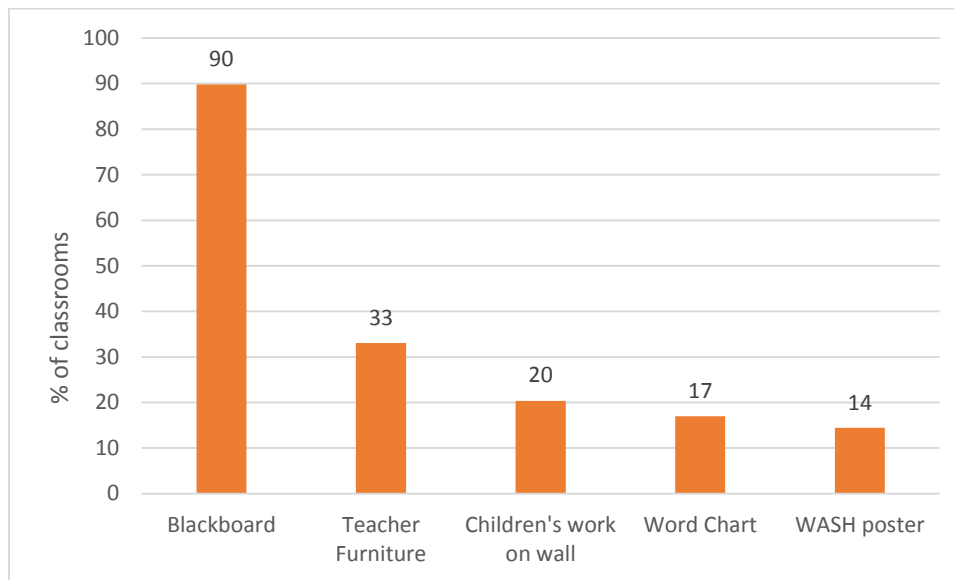
Figure 4. Teacher attendance rate on the day of the survey.



MGD 1.1.2 Better access to school supplies and materials

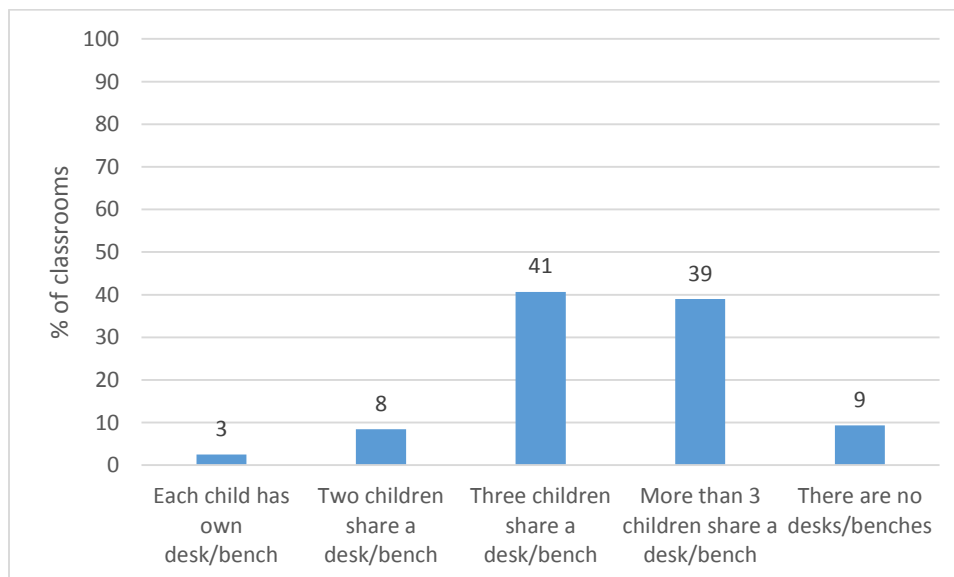
FFE III project aims to provide teaching and learning materials to targeted schools. During the baseline, 90 percent of classrooms had a blackboard, but only a third had any teacher furniture and even less had evidence of materials (children's work, posters etc.) on the wall of the classrooms, which may be because schools don't have the stationery to make these. This availability of TLMs in schools remain relatively unchanged from what was there at the end of the FFEI I project where 87 percent of project schools had a blackboard, 20 percent had children's work on the wall and 24 percent had a word chart. The main difference was in the availability of teacher furniture that was available in one-third of schools in this baseline compared to two-thirds of classrooms in the FFEI final evaluation.

Figure 5 Availability of school supplies and materials



In 9 percent of classrooms, there were no desks or benches observed and in 39 percent of classrooms, more than 3 students shared a desk or bench (Figure 6). It is unclear what the minimum standard is for school furniture, and there is none from the MEST. CRS would have to work with their MEST counterparts to agree on minimum standards for supplies and materials in classrooms and ensure that all schools meet the minimum standard.

Figure 6 Availability of desks and benches in observed classrooms

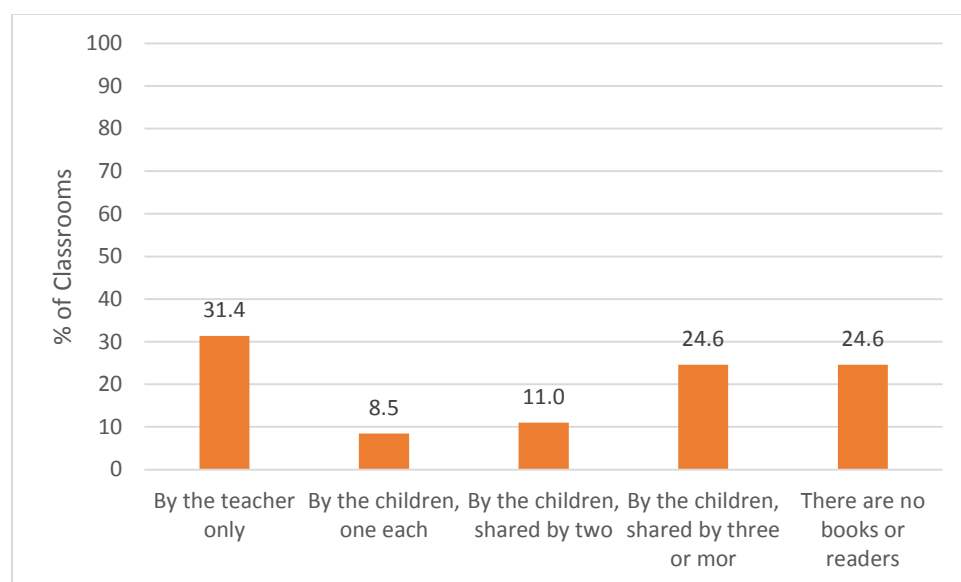


MGD 1.1.3 Improved literacy instructional and learning materials

MEST had distributed teaching guides for teachers to help in their teaching of core subjects, but only 35 percent of project schools had those guides.

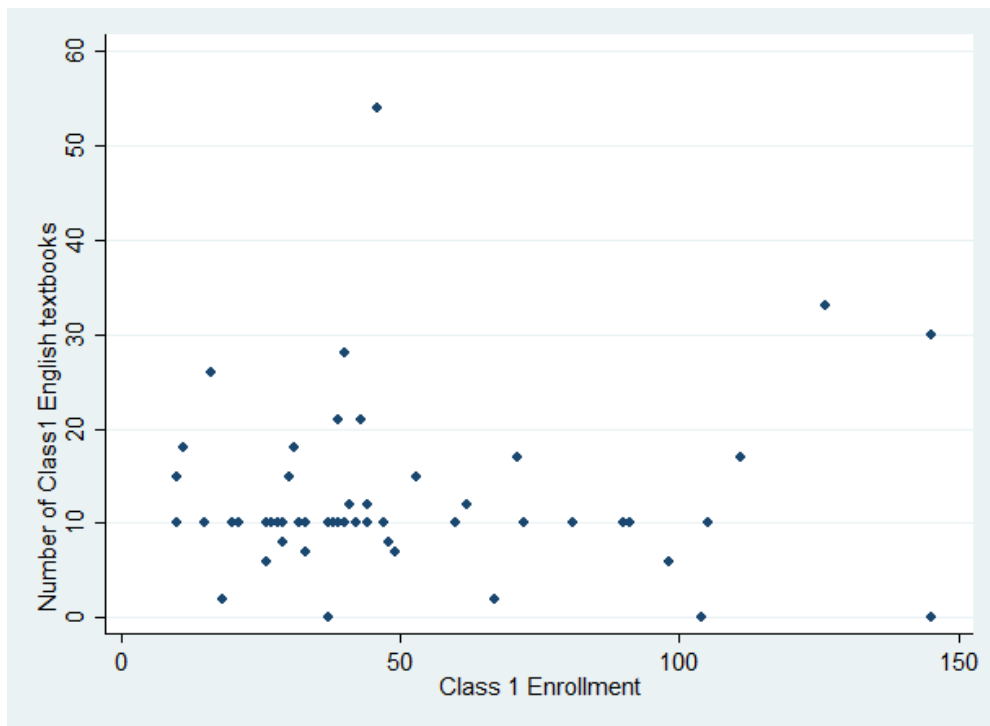
The FFE III project will provide schools with slates, laminated alphabet cards, core textbooks and teaching aids to each project school to support the literacy instruction. Figure 7 shows that in 25 percent of classrooms, there were no books or readers in use and in 31 percent only the teacher had a textbook or reader. When children have books, they are usually shared by three or more students. The policy of MEST is that the student to textbook ratio should be 1:1, and the CRS FFE project target is a student-textbook ratio of 3:1. Only 8.5 percent of classrooms observed met the MEST standard of 1:1, and less than 45 percent met the CRS standard.

Figure 7 Availability of text books or readers in observed classrooms



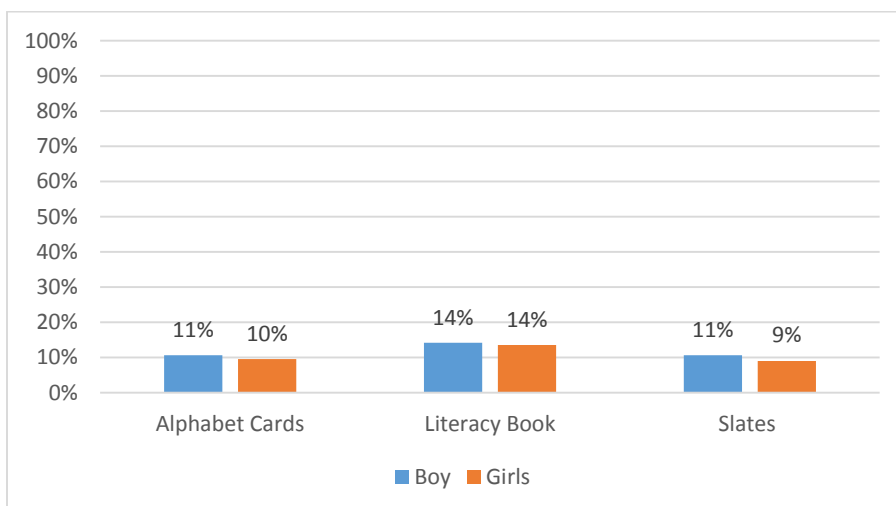
Despite the low availability of textbooks in observed classrooms, 95 percent of head teachers interviewed acknowledged receiving textbooks from CRS. However, the majority did not receive enough textbooks to meet the CRS standard of 3 textbooks to one 1 student. Figure 8 shows little relationship between enrolment in class 1 and the number of English texts available. The average student to textbook ratio is 5:1, but there is large variability (from 34:1 to 0.6:1).

Figure 8 Scatter plot showing enrolment in class I and the number of Class I English Texts available



The availability of other learner materials was low. Only about 11 percent of students had alphabet cards; 14 percent had literacy books and 10 percent had slates (Figure 9).

Figure 9 Availability of learner materials



MGD 1.1.4. Increased skills and knowledge of teachers

Of the 118 teachers surveyed, 31 percent had a teaching certificate and 69 percent did not. Twenty percent of them reported participating in a distance education program at the time of the survey, 30 percent reported having attended a DTM training from either ILA or from a literacy coach.

The skills and knowledge of teachers were assessed using teacher surveys and teaching observations. The rubric used for the teaching observation and teacher's knowledge of pedagogy combined tools developed by International Literacy Association (ILA) and MEST. Teacher competencies were assessed in 2 broad areas as outlined below:

1. The teacher uses a variety of pupil assessment techniques during the lesson
2. The teacher demonstrates good instructional practice

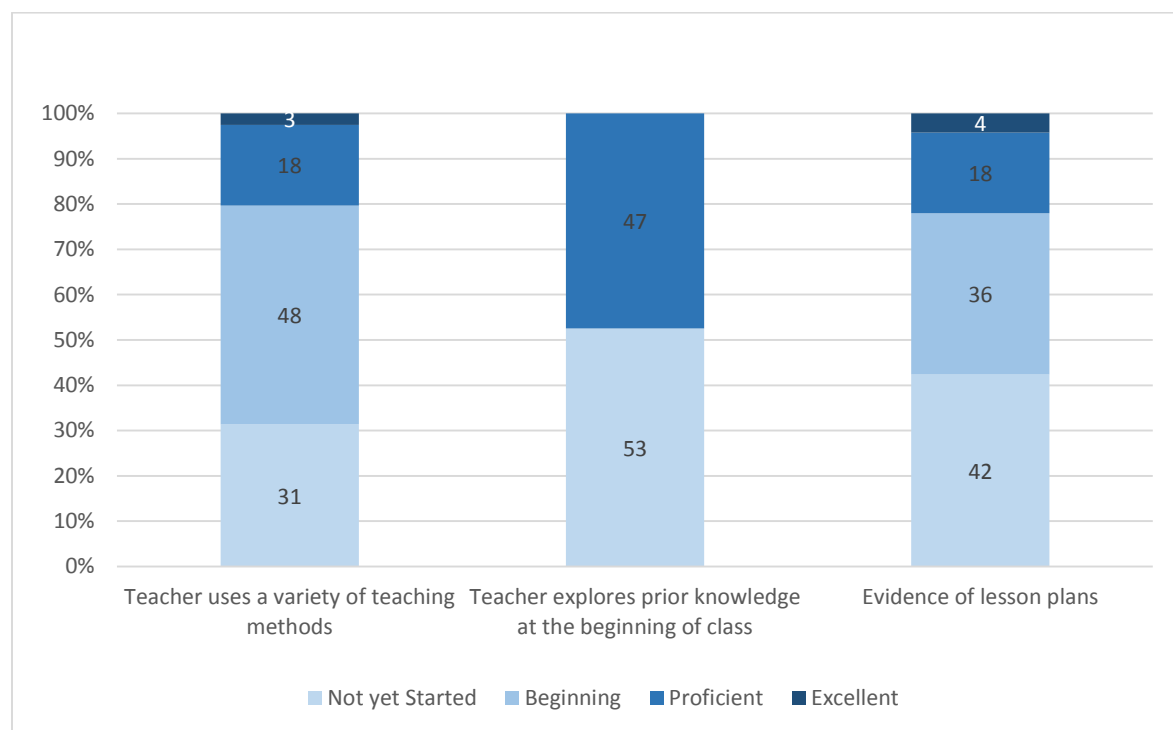
Teacher performance was scored using the guidelines shown in Table 6.

Table 6 Scoring guidelines for teacher observations

<i>1 Not yet Started</i>	<i>2 Beginning</i>	<i>3 Proficient</i>	<i>4 Excellent</i>
There is no evidence of desired behavior. The teacher needs significant support to develop practice.	The behavior is attempted, but not consistent. The teacher needs ongoing support to develop practice	The behavior is acceptable and somewhat consistent and could be used as a model for others.	The behavior is consistent and exemplary. The teacher could teach others to develop this behavior.

Figure 10 below show how teachers perform in Area 1. Twenty-one percent of teachers were proficient in using a variety of methods, 47 percent explored prior knowledge of students at the start of a lesson and 22 percent had evidence of good lesson plans.

Figure 10 Area 1: Teachers Demonstrate good instructional practice



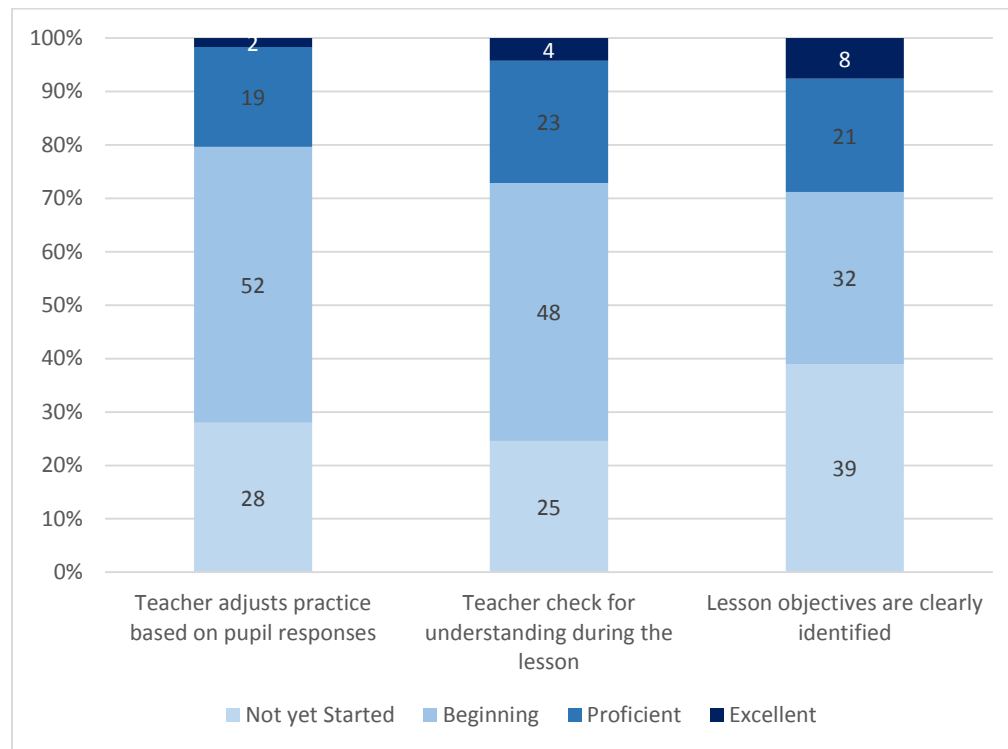
Further statistical analysis, showed no difference in teaching practice between those teachers who attended DTM training with those who had not. However, teachers who were enrolled in distance education program were significantly more likely to explore prior knowledge at the beginning of class and to have evidence of lesson plans.¹³ Teachers with a teaching certificate also performed significantly better in all teaching practice than those who do not have a certificate.

Area 2 focused on teachers' proficiency in using a variety of pupil assessment techniques during the lesson, which is one of the foundation skills of the DTM training. Figure 11 shows that 27 percent of teachers are proficient in checking for student understanding; 21 percent adjusted their lesson based on pupil responses, and 29 percent had clearly identified lesson objectives. There was no difference in practice in Area 2 between teachers who received training in DTM and those who did not. However, teachers enrolled in the distance education program scored significantly better in the practice of identifying lesson objectives.¹⁴ Teachers who hold a teaching certificate performed significantly better than those without in all skill areas.

¹³ Test of equality of medians, with $p=0.05$

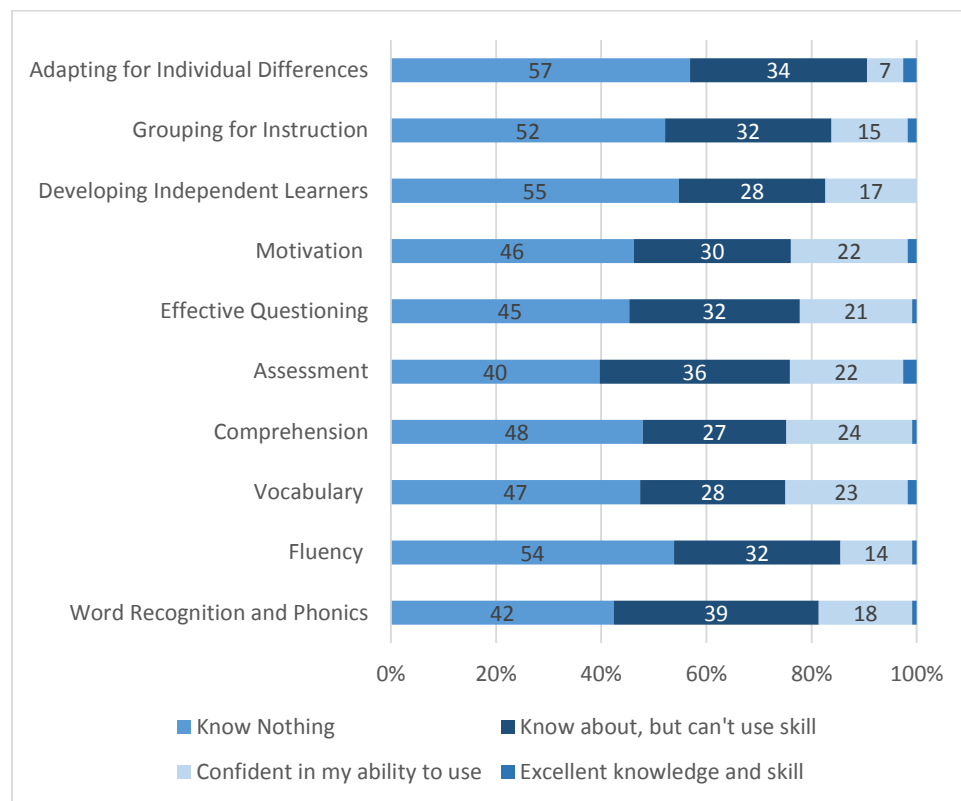
¹⁴ Test of equality of medians ($p=.05$)

Figure 11. Area 2 Teacher uses a variety of pupil assessment techniques



In addition to the observation of teacher practice, teachers had the opportunity to self-assess their knowledge and skills in a number of areas related to literacy instruction. They could rate their abilities and confidence on a scale from 1-4 with 1 being “I know nothing about this” and 4 “I have excellent knowledge and skills in this area”. The results are shown in Figure 12. Less than 25 percent of teachers assess themselves to be confident in their knowledge and skills in any area. The majority of them either know nothing about the various areas, or they know about them but cannot use the skill.

Figure 12 Teachers' self-assessment of knowledge and skills in various teaching techniques

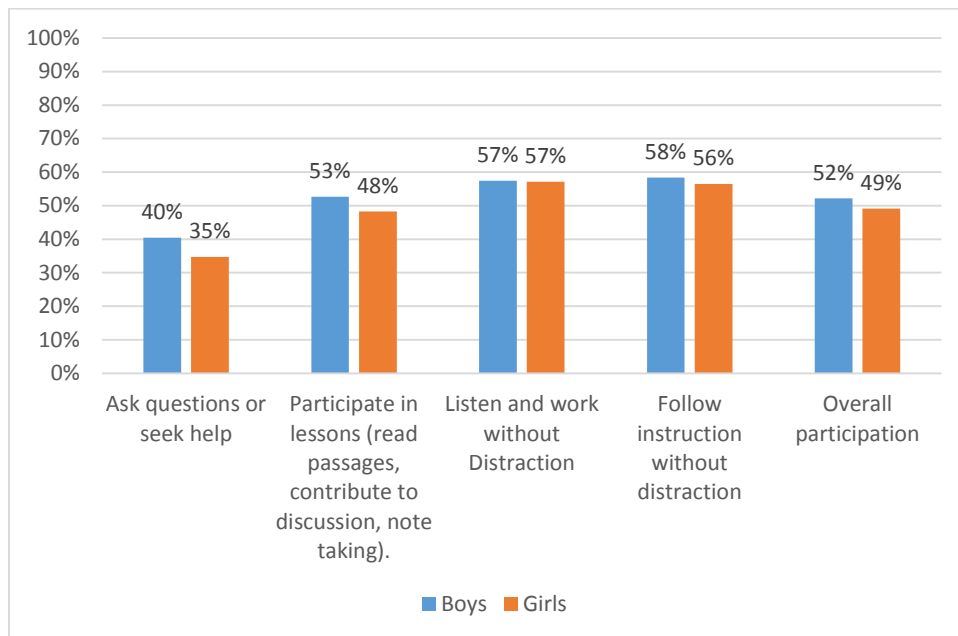


MGD 1.1.5 Increase knowledge and skills of administrators

MGD 1.2 Improve student attentiveness

During the classroom observation, enumerators recorded what children were doing during the class time. Attentiveness was defined as students asking questions, actively participating in lessons, and following instructions without distraction. Figure 13 shows the percentage of boys and girls that were observed being attentive in class. As Figure 13 shows, while about 50 percent of boys and girls exhibit the different behaviors observed, only 40 percent of boys and 35 percent of girls asked questions in class. Teachers need to encourage students to ask questions and seek help rather than just follow instruction and listen without distraction for real learning to take place.

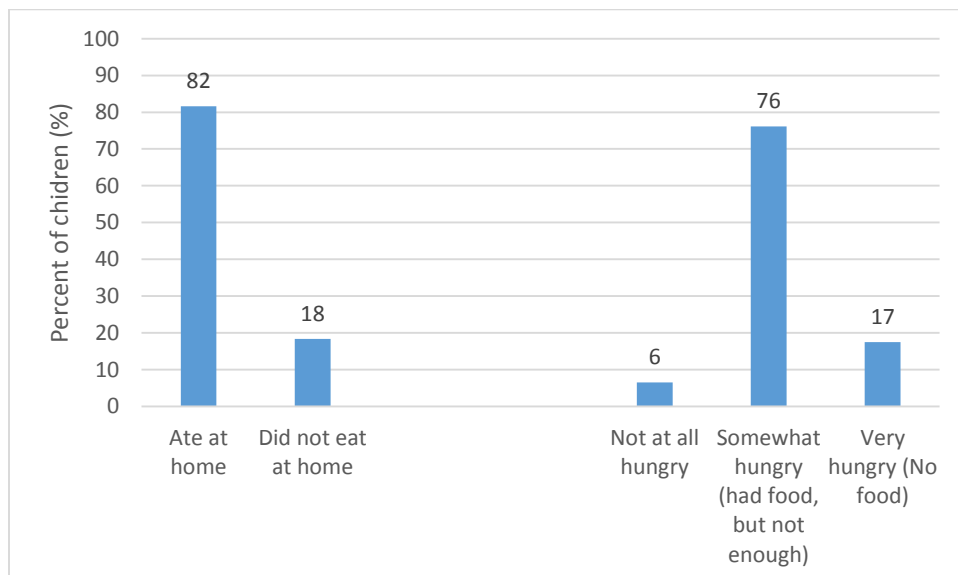
Figure 13 Percentage of students showing attentive behaviors in class



MGD 1.2.1 Reduced short-term hunger

At the time of the baseline (last two weeks of June), the school feeding had yet to start in the schools as none of the students interviewed reported receiving meals in school. Eighty-two percent of children had a meal at home before going to school and 18 percent had not. Seventeen percent of the children reported being very hungry, but most (76 percent) were somewhat hungry at the time of the survey. Almost all the children (99 percent) who reported being very hungry did not eat at home before coming to school.

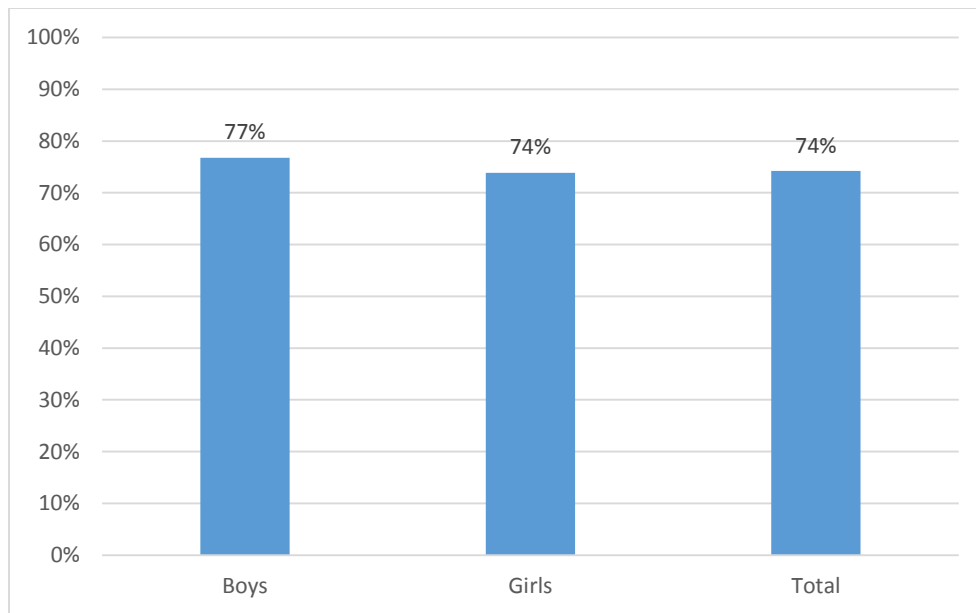
Figure 14 Hunger status of children



MGD 1.3 Improve student attendance

On the day of survey, the average school attendance rate was 74 percent (see Figure 15). The attendance rate was calculated by using enrolment and attendance information from the school registers. The attendance rate of boys at 77 percent was slightly higher than the attendance rate of girls at 74 percent.

Figure 15 Average student attendance rate on day of survey



Another important indicator is the school participation rate in the population. According to the data collected from the household survey on children aged 6-12 years old, 83.3 percent are reported to be currently attending school (Figure 16). Participation rates are equal for boys and girls. These school participation rates reported here are much higher than the participation rates for Koinadugu district reported in the Demographic health Survey of 2013, which was 62 percent. There are a number of reasons why this might be the case, the most likely being that DHS sample more accurately reflects the population of Koinadugu. The households that were surveyed in this case had a nearby school with school meals provided, which is not the norm in the rest of the district.

Figure 16 Percentage of 6-12-year-old in the population reported being attending school.

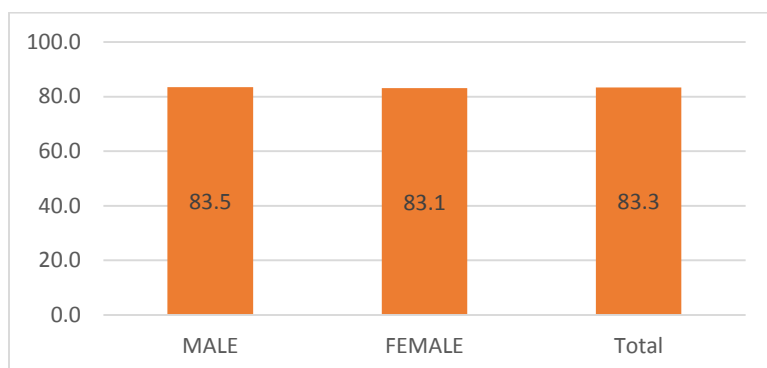
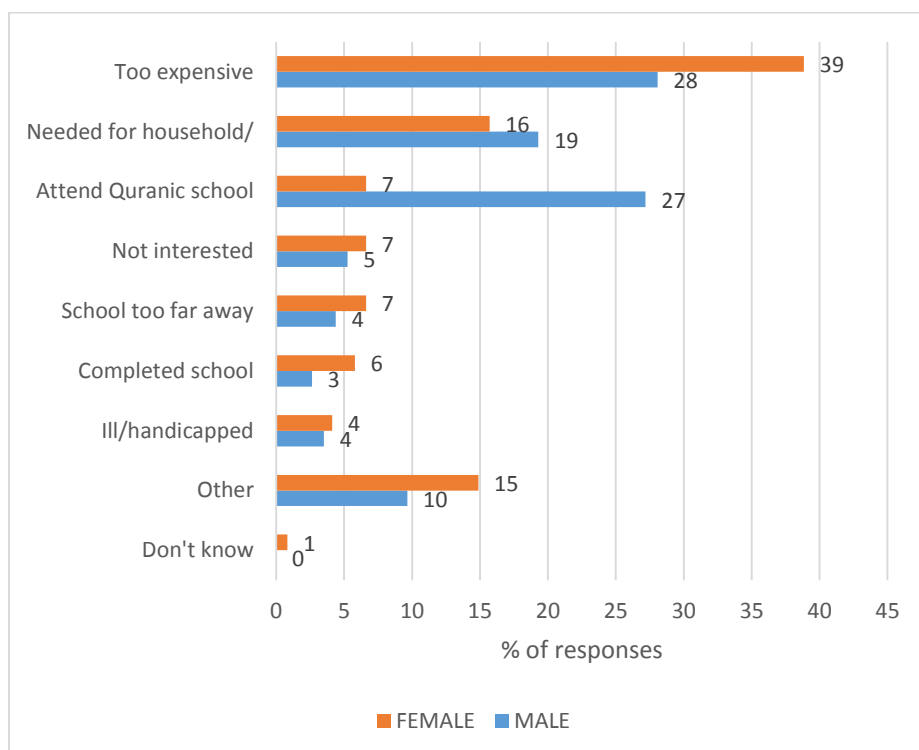


Figure 17 shows the main reasons parents gave for why their child aged 6-12 years old was not attending school. Although there were differences in the reasons given for boys and girls, the number one reason given was that schooling was too expensive, and this was a more important barrier for girls (39 percent) than for boys (28 percent). Other frequently cited reasons for not participating in school include the child was attending Quranic school (a more significant factor for boys) and that the child's labor was needed at home or on the farm.

Figure 17 Main reason why child aged 6-12 years were not attending school



MGD 1.3.1 Increased economic and cultural incentives

FFE III will strengthen Savings and Internal Lending Community (SILC) activities to improve the financial capacity of parents to provide for educational costs. At the time of survey, 23 percent of households had at least one member who was participating in a SILC supported by CRS. Of those, 92 percent reported that they used some of the proceeds from SILC to invest in their children's education.

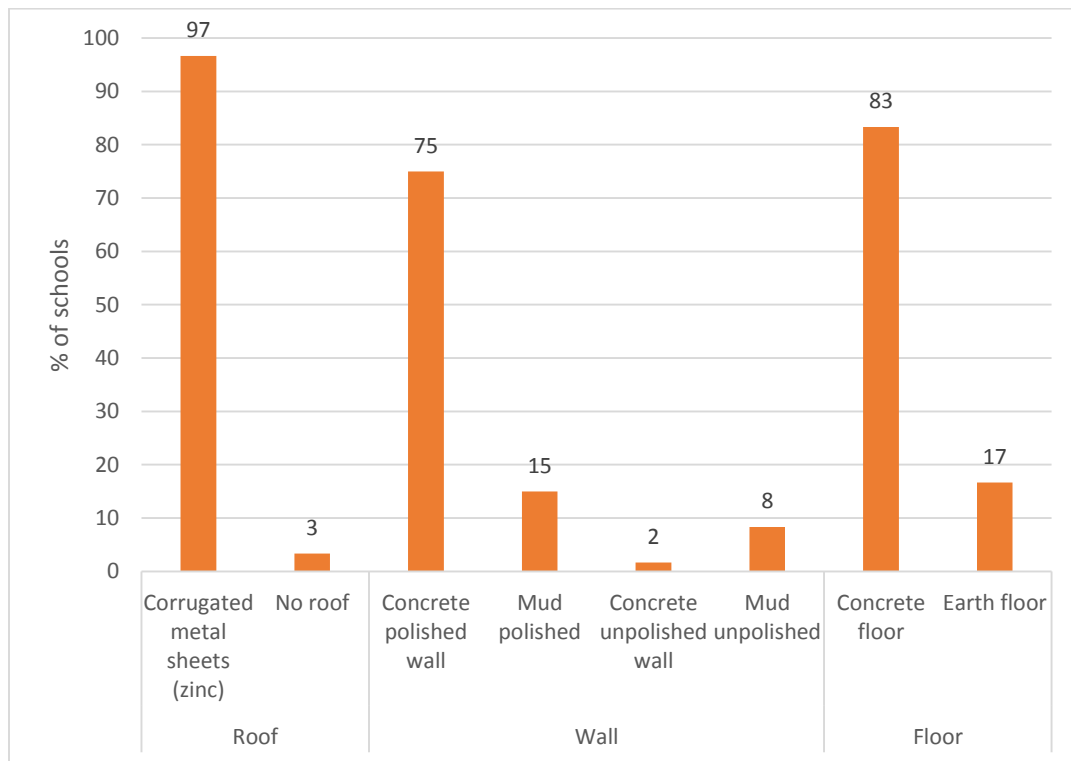
MGD 1.3.2 Reduced health-related absences

Only about 4 percent of parents reported that their children were not enrolled in school because of illness or disability. The survey did not collect data on reasons for student absences for those who were enrolled in school.

MGD 1.3.3 Improved school infrastructure

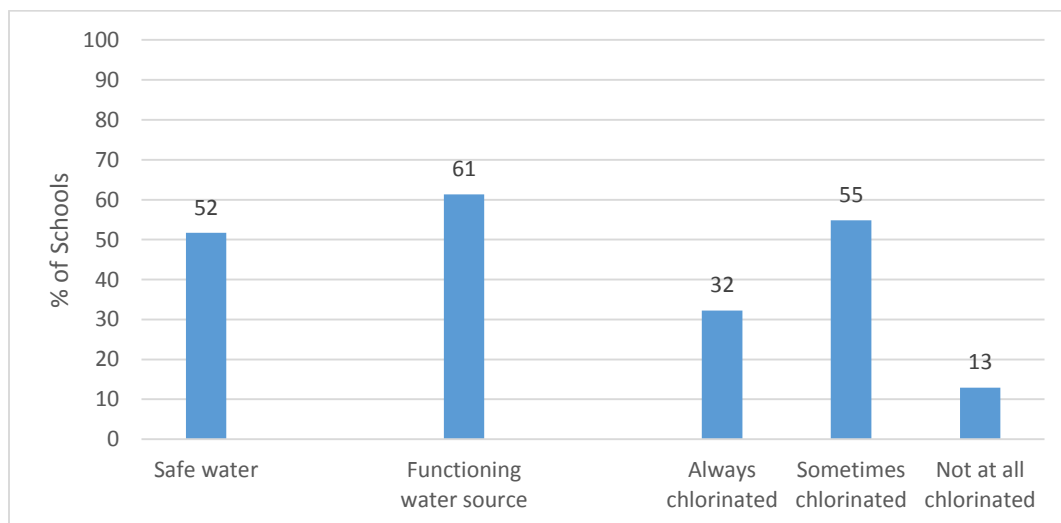
The FFE III project will rehabilitate and construct school infrastructure, where it is apparent that infrastructure is unsafe for children. The project will pay particular attention to water and sanitation facilities. Figure 18 shows the status of the school infrastructure at the time of the baseline. Most schools are one building structures. The vast majority (97 percent) have corrugated iron sheet roofs, although there were two schools with no roofs; 75 percent had concrete polished walls; and 83 percent had concrete floors. In general, the school infrastructure of the schools observed was safe. There has been good progress in infrastructure from the beginning of the Phase II project when 74 percent of observed schools had corrugated metal roofs, 37 percent had polished concrete walls, and 60 percent had concrete floors. FFE III should focus on those schools whose infrastructure endangers children and will negatively impact learning, such as schools with no roof.

Figure 18 Status of School Infrastructure



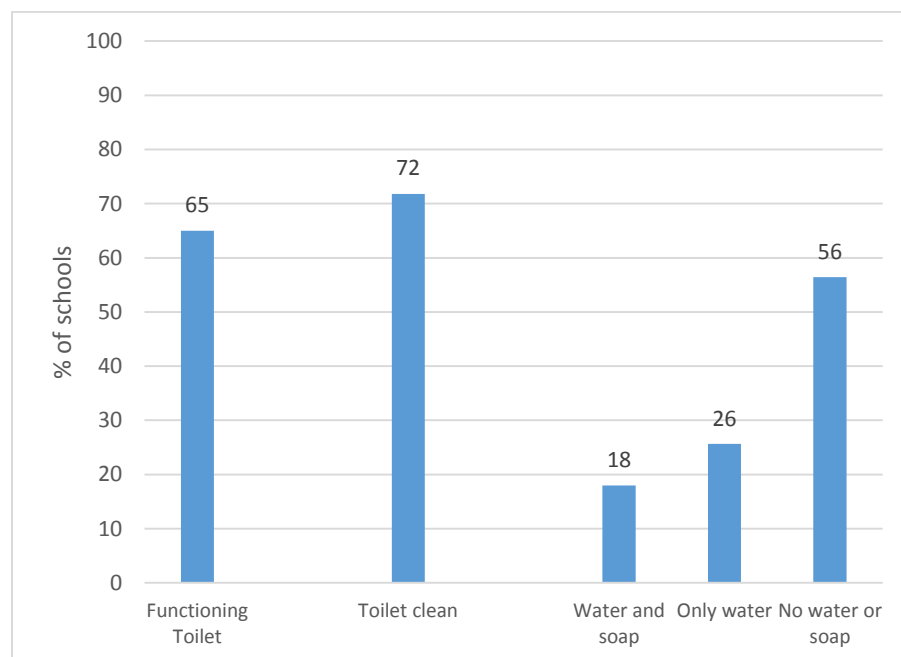
Unlike the school buildings, the status of water and sanitation facilities (WASH) was quite poor. Only 52 percent of schools had a (potentially) safe source of water, and for almost all of these, it was a hand pump well. Furthermore, of those with water wells, 39 percent were not functioning and only 32 percent were always chlorinated. Assuring that children have access to safe drinking water should be a priority for the project.

Figure 19 Status of water facilities in observed schools



Toilet facilities also need attention. Of the schools observed, only 65 percent had a functioning toilet and only 72 percent of those toilets were clean. Furthermore, only 18 percent of toilets had a handwashing station with water and soap available (Figure 20).

Figure 20 Status of toilet facilities in observed schools



MGD I.3.4 Increased student enrollment

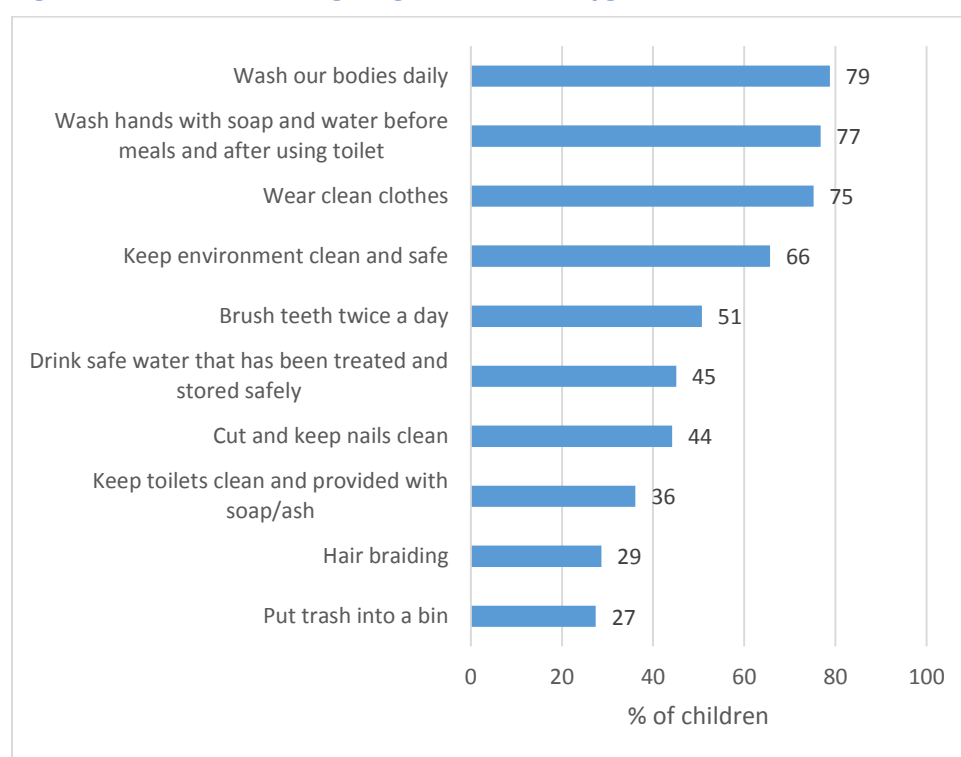
Student enrollment is tracked via project monitoring. As of April 2016, there were 28,463 students enrolled in project schools.

MGD S.O.2 Increased use of health and dietary practices

MGD 2.1 Improved knowledge of health and hygiene practices

Pupils were also asked about their knowledge of good health and hygiene, and their responses are shown in Figure 21. The most mentioned practices were: washing daily (79 percent of students); washing hands with soap and water (77 percent); and wearing clean clothes (75 percent). The least mentioned practices were putting trash into bins (27 percent); hair braiding (29 percent) and keeping toilets clean (36 percent). Forty-nine percent of students were able to name at least 6 of 10 good hygiene practices.

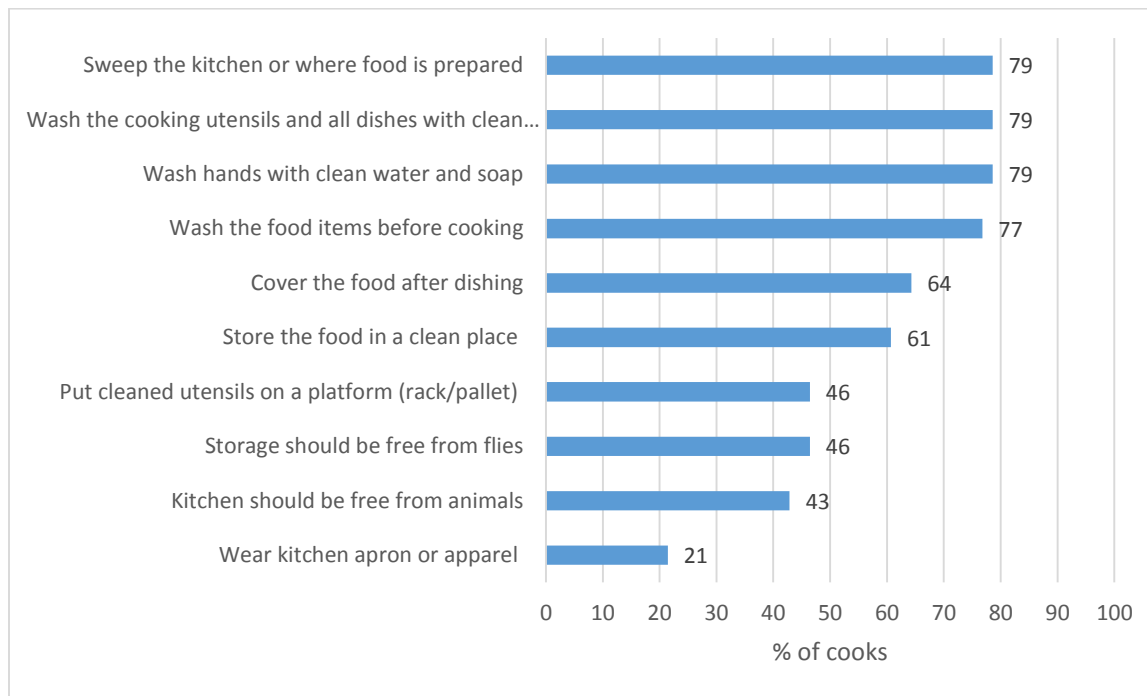
Figure 21 Students' knowledge of good health and hygiene



MGD 2.2 Increased knowledge of safe food preparation and storage practices

During the baseline, the team surveyed the food preparers and cooks to determine their knowledge and skills in safe food preparation and storage practices. A total of 56 cooks were interviewed, and of those, 42 cooks (82 percent) reported having been trained on safe food preparation and storage practices. They were then asked to list examples of good practices in safe food preparation and storage practices, and these were checked against main messages delivered in the training delivered by CRS. Their responses are shown in Figure 22. Seventy-nine percent of those who have been trained mentioned sweeping the kitchen, washing hands with soap, washing food items and cooking utensils as examples of good practices. The least mentioned practice was wearing an apron or cooking apparel, which is not surprising giving that none of them reported having aprons. Seventy-one percent of cooks were able to recall at least 5 of the 10 safe food preparation and storage behaviors.

Figure 22 Cook's knowledge of safe food preparation and storage practices

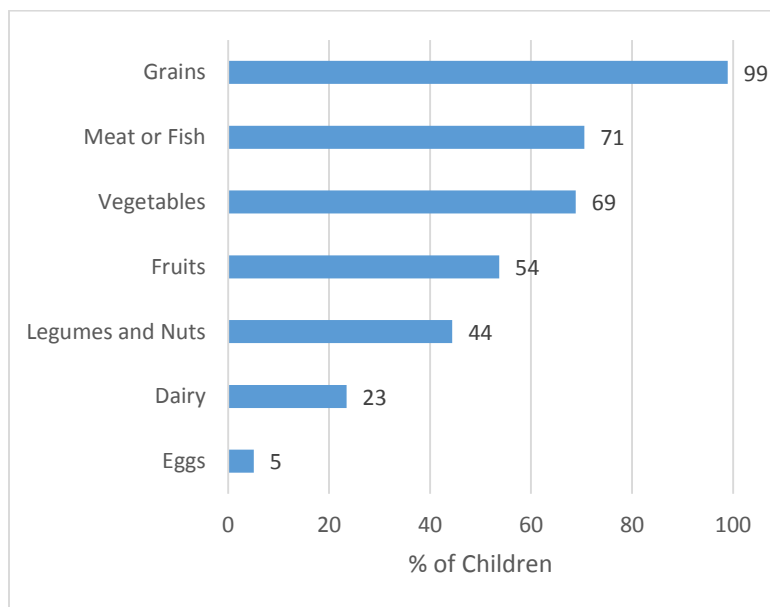


Sixty-percent of cooks reported having a kitchen in the school, but only 18 percent of these kitchens had a handwashing station with soap and water available. Therefore, while cooks may know the importance of washing with soap and water, many appear not to have the soap available to perform this task.

MGD 2.3 Increased knowledge of nutrition

Students were not asked about their knowledge of nutrition, but they were asked about the types of foods they ate on the day before the survey. As Figure 23 shows, almost all children ate some form of grains (rice, cassava, etc.); 71 percent ate meat or fish; and 69 percent ate a type of vegetable. Fifty-three percent of students had a minimum acceptable diet that included at least 4 of the 7 identified food groups.

Figure 23 Food groups contained in students' diet on the day prior to the survey



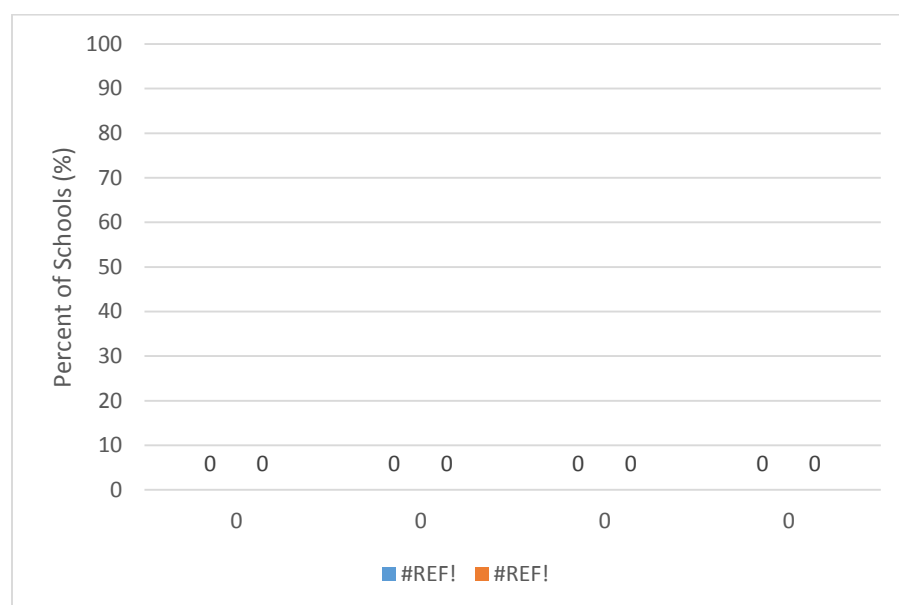
MGD 2.4 Increased access to clean water and sanitation services

As mentioned above in Section MGD 1.3.3, 48 percent of schools do not have access to a safe water source and 35 percent do not have access to a toilet. Soap is especially rare both in the kitchen and toilet facilities.

MGD 2.5 Increased access to preventative health services

The GOSL, with support from its donor partners, provide preventative health services, including deworming and preventative health services to school children. However, fifty percent of head teachers reported that their school did not receive Vitamin A supplementation and 23 percent did not receive deworming services (see Figure 24). CRS, in conjunction with UNICEF, is proposing deworming services in schools at least twice a year.

Figure 24 Access to Preventative Health Services in project schools



MGD 2.6 Increased access to requisite food preparation and storage tools and equipment

Cooks were asked about the numbers of food preparation and storage tools and equipment they had in their school. Their responses are summarized in Table 7. There appears to be quite a difference amongst schools in terms of the quantities of equipment available. CRS should establish a minimum ratio of equipment to a student and ensure that all schools meet at least the minimum standard.

Table 7 Availability of kitchen equipment

Equipment	Average	Min	Max
No. Big Pots	1	0	2
Big Bowls for cooked food	0	0	4
Big bowls for sauce	2	0	80
Wooden spoons	1	0	15
scooping spoon	5	0	98
Serving Plates	29	0	160
Spoons	26	0	135
Buckets	1	0	5
Towels	3	0	80
Cups	25	0	130
Knives	0	0	15
Mortar	0	0	1
Mortar pestle	0	0	

WHAT IS THE STARTING STATUS OF THE IDENTIFIED PROJECT PERFORMANCE INDICATORS?

As part of the project monitoring of outputs and outcomes, the FFE III project has selected a number of indicators that will be used to monitor progress. One of the main objectives of the baseline survey was to collect information on the starting point of these indicators. Table 8 provides the data on key indicators derived from baseline survey and available monitoring data and the end of project targets.

Table 8 Key Performance Indicators: Baseline Value and End of Project Targets

INDICATORS	Baseline		End of Project Targets		Comment
	Girls	Boys	Girls	Boys	
Percent of students who, by the end of two grades of schooling, demonstrate that they can read and understand the meaning of grade level text (girls/boys)	8.3	7.9	40	40	Percent of class 2 students who scored at least 80 percent in a reading comprehension test
Percent of students in target schools who are identified as attentive or very attentive during class/instruction (girls/boys)	49	52			Composite index of attentive behaviors
Number of teachers in target schools who demonstrate use of new and quality teaching techniques or tools as a result of USDA assistance			701	701	27 percent of teachers observed demonstrated the use of a variety of assessment techniques, a foundation of DTM
Number of students regularly (80%) attending USDA supported classrooms/schools	9,169	9,776	14,700	15,686	From monitoring data. This translates to about two-thirds of students
Number of students enrolled in project supported schools	13,715	14,748	15,186	15,733	As of April 2016. From monitoring data

Number of Parent-Teacher Associations (PTAs) or similar 'school' governance structures supported as a result of USDA assistance	1,728 SMCs 3,840 Mother clubs				From monitoring data.
Percent of school-age children receiving a minimum acceptable diet	55%	52%	100	100	Percent of school-aged children who report consuming at least 4 out of 7 food groups on the day prior to the survey, as defined by the FFE Indicator Handbook.
Percent of students in target schools who achieve a passing score on a test of good health and hygiene practices	55%	44%	70	70	Percent of students who could name at least 6 of 10 good hygiene practices
Number of school WASH Clubs formed by CRS	0		130		45 percent of head teachers interviewed during baseline revealed that the school did already have a WASH club
Percent of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage	71%		75%		Percent of cooks who could name at least 5 of 10 safe food preparation practices
Number of students receiving deworming medication(s)	28,463		30,919		From CRS Monitoring data
Number of schools using an improved water source	102		192		From CRS Monitoring data
Percent of students in target schools who indicate that they are hungry or very hungry during the school days	94%		0%		Reported being very hungry or somewhat hungry at the time of the survey

WHAT ARE THE DETERMINANTS OF SCHOOL ATTENDANCE?

One of the important outcomes of the FFE III project is to improve school attendance and participation rates in the target chiefdoms. In the analysis above, we saw that 83 percent of children of school-going age were in school and 17 percent were not in school. Of those enrolled in school, many children do not attend regularly – the attendance rate on the day of the survey was 74 percent.

In order to understand the factors that influence school attendance and participation, the baseline evaluation included a barrier analysis, which is a rapid assessment tool that is used to identify the factors that drive a particular behavior.¹⁵ The analysis involves interviewing “Doers” (those who practice the behavior under study) and “Non-Doers” (those who don’t practice the behavior) and focuses on eight behavioral determinations: perceived susceptibility, perceived severity, perceived action efficacy, perceived social acceptability, perceived self-efficacy, cues for action, perception of divine will, and positive and negative attributes of the action. While barrier analysis is typically used in community health programs and health behaviors, we have adapted it for use in the education sphere. For the evaluation: the behavior under study was the regular attendance of school-age children.

Selection of sample in barrier analysis

Households with children aged 6-12 years were eligible to be selected for the barrier analysis. Doers were defined as parents with a child aged 6-12 years who was not attending school, while non-doers were parents of child 6-12 years not attending school. In each community, 3 doers and 3 non-doers were interviewed.

Results of barrier analysis

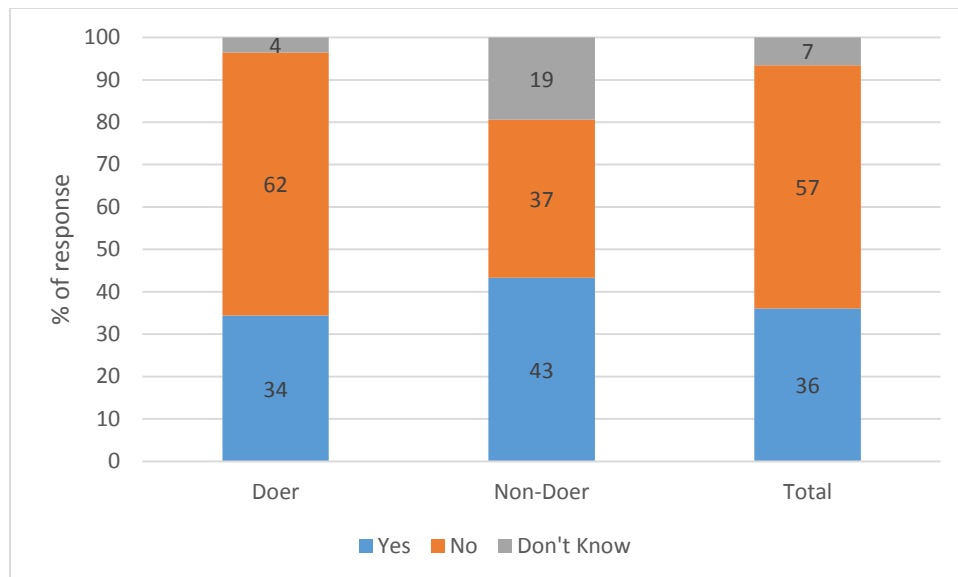
Of our survey of 352 households, 285 (81 percent) were considered doers and 67 (19 percent) were non-doers. Below are the various responses to interview questions by doers and non-doers in the survey. We used a chi-squared test to determine whether there were significant differences ($p=.05$) between doers and non-doers in the various areas.

¹⁵ Food for the Hungry and The Core Group (2004). Barrier Analysis Facilitator’s Guide: A tool for improving behavior change communication in child survival and community development programs

Perceived Susceptibility

Doers were significantly more likely ($p=0.000$) to link their child's future success to school attendance: 62 percent felt that child will not be successful if they don't attend school; whilst 37 percent of non-doers felt the same way.

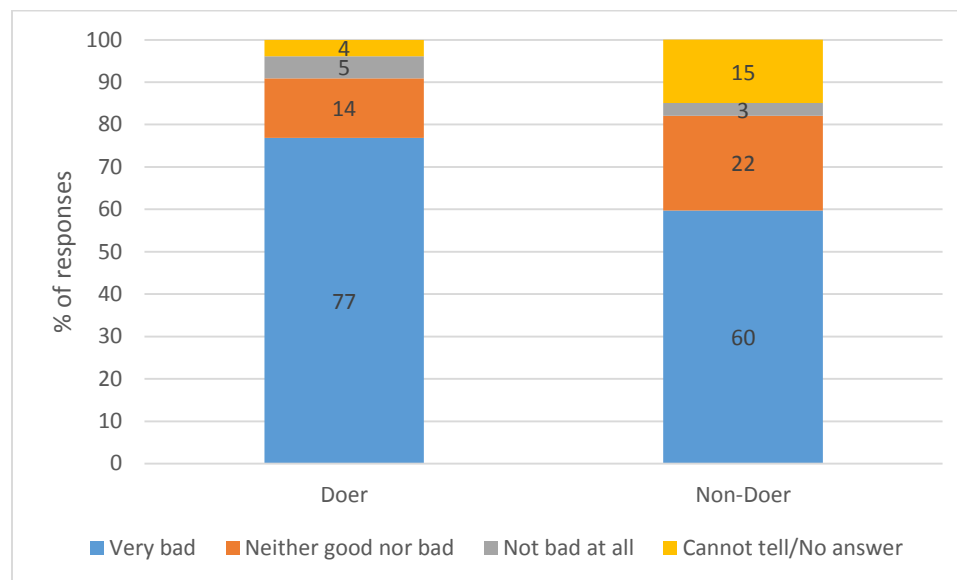
Figure 25 Distribution of responses for Doers and Non-Doers on Question “Do you think your child will be successful in life if they don't attend school?”



Perceived Severity

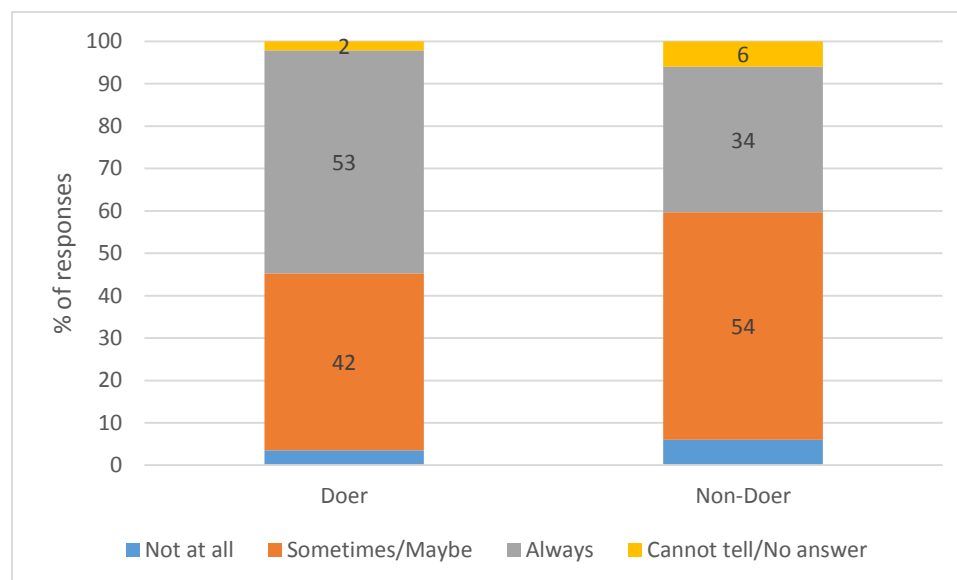
We asked a few questions regarding the perceived severity of non-school attendance. As Figure 26 shows, Doers, were significantly more likely ($p=0.001$) to see this as a “very bad” problem (77 percent of doers vs. 60 percent of Non-Doers).

Figure 26 Distribution of responses for Doers and Non-Doers on Question “How bad a problem is it if a child does not go to school?”



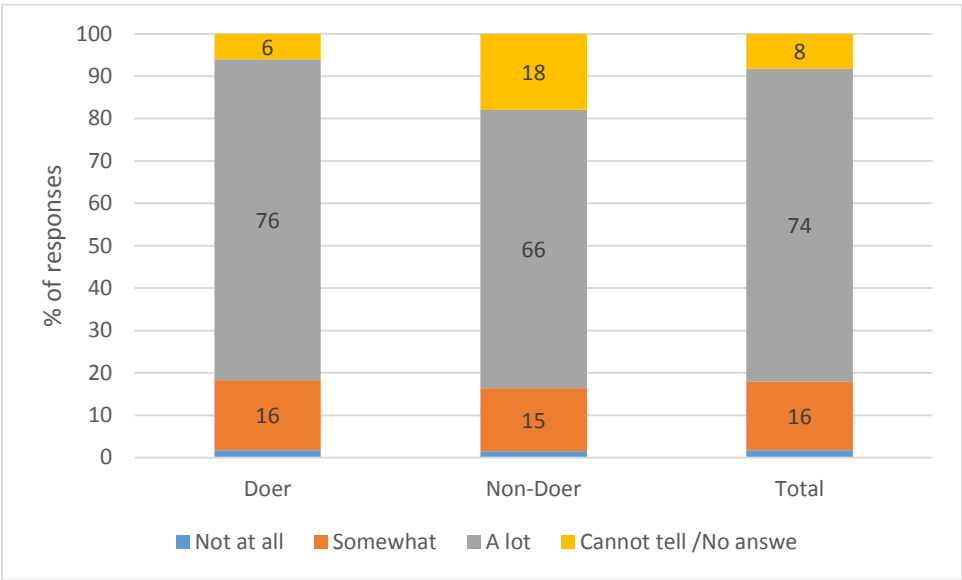
Doers were also very optimistic about the possibility of a child getting a good paying job or successful business if they attend school. 53 percent of Doers vs. 34 percent of Non-Doers felt that going to school would always lead to a better job or business (see Figure 27).

Figure 27 When a child goes to school does that mean that he or she will get a good paying job or a successful business?



Doers were also significantly more likely to agree that completing school makes you a better person compared to Non-Doers (76 percent vs 66 percent).

Figure 28 Responses by Doers and Non-Doers to the Question “To what degree does a child completing school help make you (respondent) a better person?”

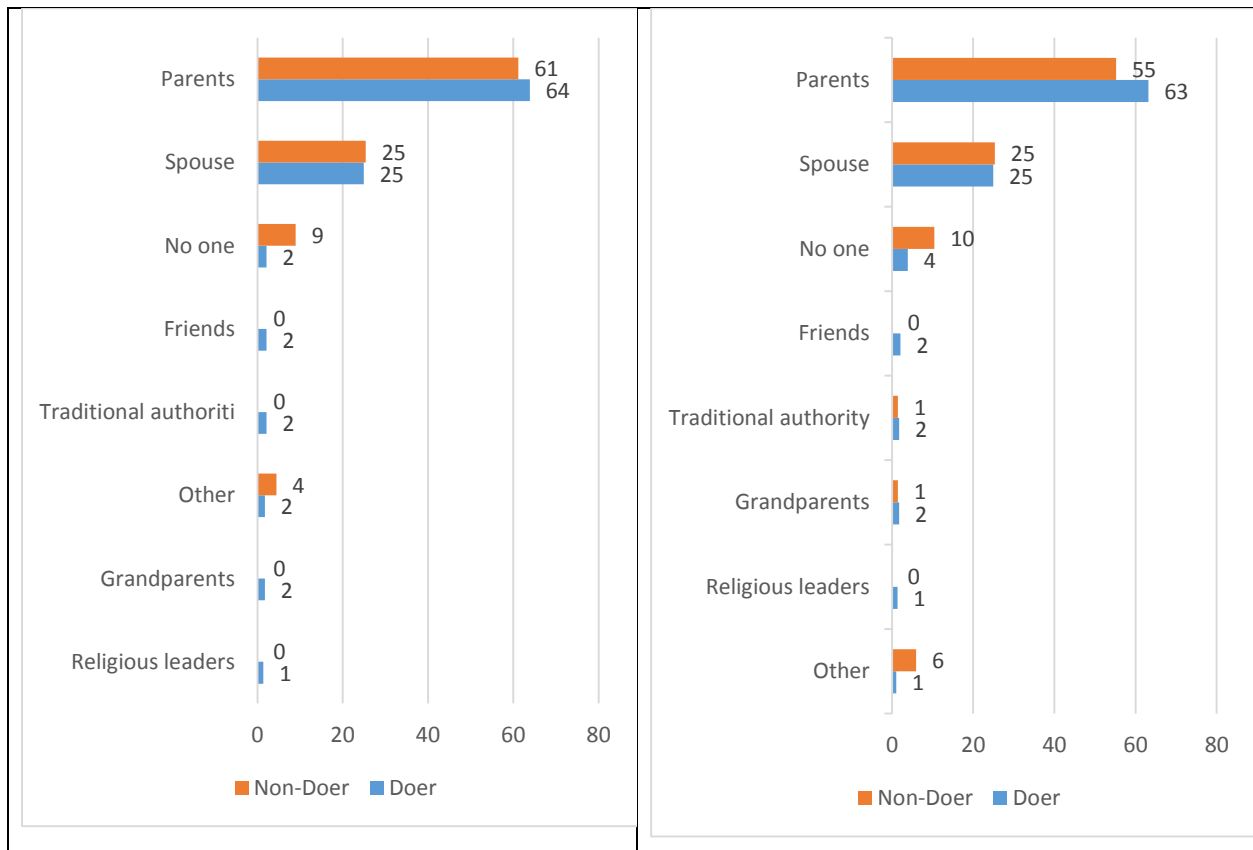


Perceived Social Acceptability

On the social acceptability determinant, individuals were asked about whose decisions matter to them and whether these people would agree or disagree with their decision to enroll their child in school. There were slight, but statistically significant differences ($p = 0.047$) in the response of Doers and Non-Doers for the two questions shown below in Figure 29 . For Doers and Non-Doers, the most important people are parents and spouses and these groups will generally agree with the decision to enroll their children in school. The opinion of parents was the most important for both groups. Doers appeared to have a larger network of individuals and or groups than Non-Doers as friends, traditional authorities, and religious leaders were all mentioned as people who would agree with the decision to enroll children in school.

Figure 29 Responses by Doers and Non-Doers in Social acceptability questions

Who (individuals or groups) do you think would agree if you enrolled your child in school?	Which of these individuals or groups is most important to you?
--	--



Perceived Self-Efficacy

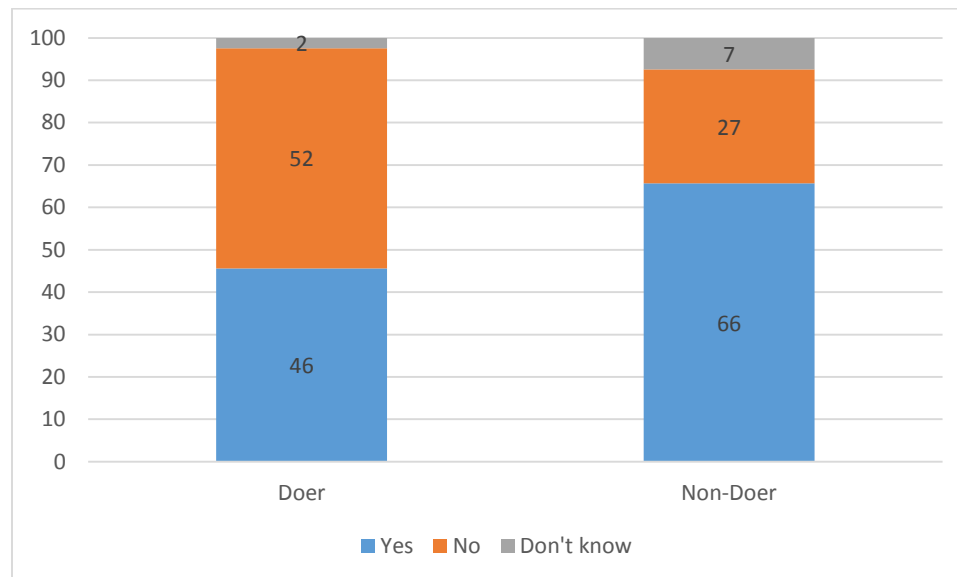
Here respondents were asked how easy it would be (or was it) to enroll your child in school. Here there were significant differences between Doers and Non-Doers ($p=0.04$) with 43 percent of Doers saying it was easy compared to 24 percent of non-doers. Still, for both group, the majority found it to be not easy. There were no significant differences in their response to the question of what would make it easier or difficult to enroll a child in school. The most important factors that would make it easier to enroll in school for both groups was a lower cost of schooling (or having more money) and having a school nearby. For non-doers, in particular, not having a school nearby was an important factor in determining school participation or attendance.

Perception of Divine Will

We asked three questions regarding whether parents thought religion influenced whether children go to school. These were: (1) Do you think sometimes it is God's will that children don't go to school? (2) Does your religion say it is bad for children to go to school?; and (3) Does your religion say it is bad for children to go to school? Non-doers are significantly more likely ($p=0.000$) to believe that it is

sometimes God's will that children do not go to school; 66 percent of non-doers versus 46 percent of doers believe this (Figure 30).

Figure 30 Responses by Doers and Non-Doers on the Question: "Do you think it is sometimes God's will that children don't go to school"



There was no statistically significant difference between the two groups on the question of whether their religion supports a child going to school. When asked in the positive, 92 percent of both Doers and Non-Doers agree that their religion supports a child's schooling. When asked whether their religion says it's bad for children to go to school 92 percent of doers say no; compared to 82 percent of non-doers but this difference was not statistically significant at the 95 percent level.

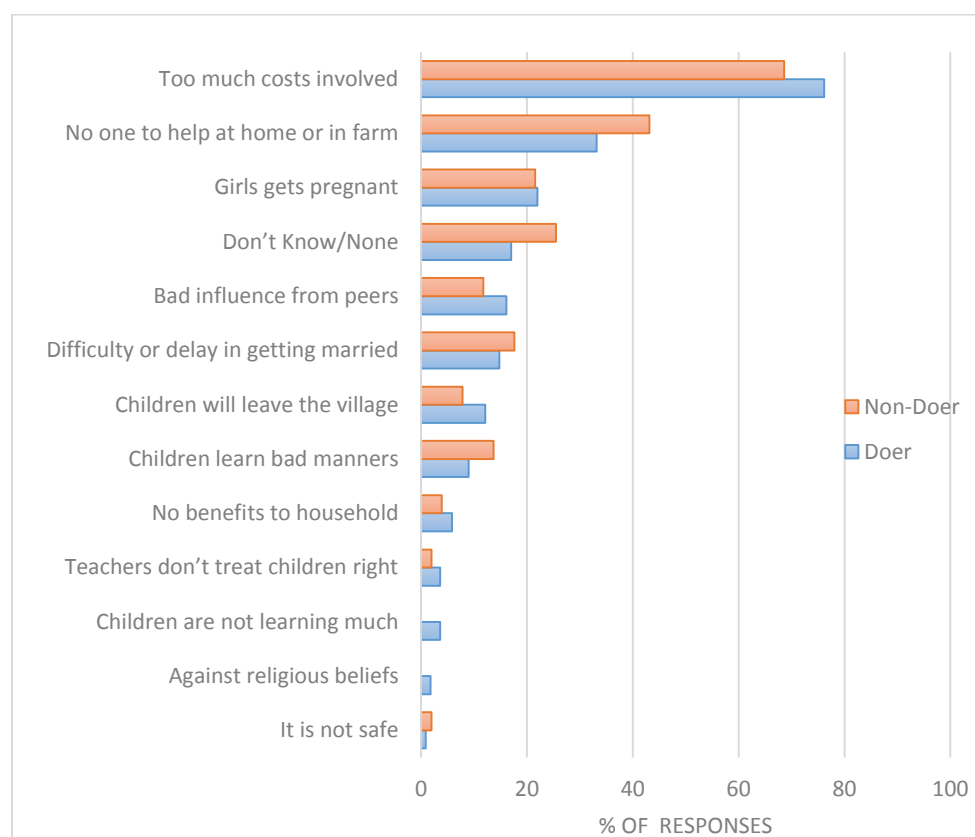
Positive and Negative Attributes of the Action

Both doers and non-doers can list positive and negative attributes of school participation for boys and girls, and there are no significant differences between their choices. The five most cited advantages of schooling for boys were that it affords boys the ability to: "support family and community", "find a good job", "learn to read and write", "be a better parent," and "be a better husband". For girls, the five most cited positive attributes are the same except that "be a better wife" was more widely cited than "be a better husband for boys".



With regards to the disadvantages of schooling, there is again no statistically significant differences between doers and non-doers. The most-widely cited disadvantages or negative attributes were that schooling was costly, children cannot help at home or on the farm, girls can get pregnant, and bad influence of peers (Figure 31).

Figure 3I Responses by doers and non-doers on the disadvantages of schooling



To conclude, the barrier analysis shows that the most common determinant of school participation among the doers and non-doers interviewed are: perceived susceptibility; perceived severity; perceived social acceptability; and perceived self-efficacy. This means that behavior change campaigns or programs should focus on messages that stress the importance and benefits of schooling. It also means that these messages should target not just parents, but the wider community. Finally, messages and programs should focus on ways to reduce the cost of schooling for parents – either by providing opportunities for increased income, reducing the cost of schooling through scholarship, or ensuring that a school was nearby the community.

HOW APPROPRIATE IS THE DESIGN TO THE CONTEXT?

Stakeholders interviewed all believed that the areas in which the FFE III project focused were important for the development of their communities and children. Providing school meals for students, improved WASH facilities, and improving learning are priorities for Education, especially in the aftermath of the Ebola Virus Disease. These issues are all part of the government's short-term Recovery Plan and long-term development plans. Therefore, the FFE III project contributes to the GOSL's national priorities.

Discussions with local groups and community members in project chiefdoms also reveal that construction and support of schools is one of their top 3 development priorities. Other priorities include having a health center in the community and having a safe source of water in the community. The rehabilitation of school infrastructure and provision of WASH facilities in school will meet the needs of communities. In terms of school support, the focus was mostly on construction, but having more qualified teachers was mentioned by a few people as one of the top priorities. Very few mentioned provision of food as a top priority.

HOW COULD INTEGRATION OF THE TWO STRATEGIC OBJECTIVES BE ENHANCED OR FURTHER LEVERAGED TO DEEPEN POSITIVE PROGRAM RESULTS?

The two strategic objectives are linked in the sense that improving the health of students and teachers could lead to reduced absenteeism from school. For example, there are research studies that have shown that deworming school children improve overall health and reduced absenteeism, and these benefits continued over a long period of time.¹⁶ Handwashing with soap is also known to reduce the incidence of diarrhea and other water or food-borne diseases.

The program already recognizes the links between the objectives in its results framework. Perhaps what is remaining is for these messages to be fully integrated into the project such that schools and surrounding communities also understand the link.

The Ministry of Health and Sanitation (MOHS) has a school health division, but it is unclear how the FFE III program links with the MOHS either at the national level or at the district level to promote school health programming.

Another way to integrate the two programs is to develop reading materials for students that incorporate key health messages that the project wants to promote in a fun and engaging way.

CONCLUSIONS & RECOMMENDATIONS

¹⁶ For a summary of benefits of deworming, see: J-PAL Policy Bulletin. 2012. "Deworming: The Best Buy for Development." Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.

This evaluation has focused on providing evidence for the five key evaluation questions: (1) the status of the main strategic objectives; (2) the starting status of the identified project performance indicators; (3) the determinants of school attendance; (4) appropriateness of design to the context; and (5) enhancing the integration of the two objectives.

Status of main strategic objectives

The two main strategic objectives are to improve literacy among primary school students and to increase the use of good health and dietary practices.

Improved literacy

Despite some progress in the reading skills of children since the FFE started doing work in this area, the literacy levels of students are still very low. Less than 10 percent of children in class 2 could read and understand grade level text. The only reading skill that students are proficient in is identifying letters. Otherwise, they scored poorly in phonemic awareness, familiar word reading, and comprehension. In sum, after two years of schooling, the majority of children cannot read.

The theory of change of the FFE III project and says that if the quality of instruction is improved and student attends school and are attentive when they are there, then the literacy of school-aged children will improve. At the time of the baseline assessment, schools were not yet providing school meals and attendance levels were low on the day of the survey. Even CRS own enrolment monitoring shows that only two-thirds of students regularly attend school. Half of the students were observed to be attentive or engaged in their lessons.

Despite two prior rounds of the FFE project, schools were poorly resourced in terms of school supplies and teaching and learning materials; and where materials exist they are not being used properly. In fifty-six percent of classrooms observed there were either no textbooks or only the teacher had one. Only 35 percent of schools had teacher guides provided by the Ministry of Education. The school environment, especially the provision of water and sanitation facilities, were also very poor.

Classroom observations of teachers also show low levels of proficiencies in basic teaching skills such as lesson preparation, using a variety of teaching methods, and checking for children's understanding during the class. Teachers themselves acknowledged that they know very little about how to teach students how to read – 81 percent reported that they lack the skills to teach word recognition or phonics, 86 percent could not teach fluency; 75 percent could not teach vocabulary or comprehension.

Based on findings, the following are recommended:

- Prioritize improving the skills of teachers to teach reading, focusing on the five components. Teachers will need ongoing support and not just one-off training as their skill levels are quite low. The DTM training curriculum is quite broad and needs to be simplified and streamlined taking into account that most teachers only have a secondary degree. Training should also include specific guidelines on how to integrate teaching and learning materials in their teaching including textbooks and other reading materials.
- CRS should consider lowering the end of project target for the reading indicator because of very low baseline values. For example, at baseline only 8 percent of children can read with understanding at the end of class 2 and the 3-year target is 40 percent. This expected magnitude of change in this indicator is unlikely.
- Continue supporting teachers to get certified as teachers with teaching certificate perform better in general classroom practice. However, Northern Polytechnic should also be encouraged to integrate specific skills on how to teach reading into their curriculum.
- Define minimum standards for the availability of school supplies and facilities together with the MEST in Koinadugu, and track the percentages of schools that meet minimum standards. This also means that CRS will focus their distribution of supplies in bringing schools below the minimum standards up to standard. For example, schools that already meet the CRS standard of 3 students to 1 textbook will not receive additional textbooks and schools below the standard will receive more books. These standards should be set for all supplies and services to be provided by CRS. Where a MEST standard already exists, then CRS should adopt those standards.
- Prioritize infrastructure and supplies that impact student safety and well-being. These include schools that have no roof, no working safe source of water, no working toilet facilities and no hand-washing stations. Soap (or other cleaning agents) and water should be mandatory in all schools.
- CRS should work closely with schools and MEST to ensure that schools receive approval by MEST. It is the only way to ensure that schools will continue to get supported after the FFE III program ends. As of the baseline, only 27 percent of project schools are approved by MEST. Fifty-seven percent of schools have not even applied for approval. While it is acknowledged that the approval process can be long and cumbersome, schools should be encouraged to apply. Given the long history of CRS involvement in these schools and the demand for schools in these areas, there is a strong case to be made for approval of schools. CRS should make this the focus of its advocacy with the government.

Increased use of good health and dietary practices

The CRS FFE III project is promoting improved knowledge of good health and dietary practices in order to prevent the spread of disease and illnesses and prevent them from attending schools. During the baseline, children were asked to name practices that promote good health and hygiene, and just under

half of them could name 6 of 10 good practices. The least likely to be mentioned were: putting trash into bins, hair braiding and keeping toilets clean.

Eighty-two percent of food preparers and cooks reported having been trained on safe food preparation and storage practices. Seventy-one percent of cooks were able to list at least 5 of the 10 safe food preparation practices. The least likely to be mentioned were: wearing kitchen apron or apparel, keeping kitchen free from animals, and putting clean utensils on a rack or pallet. Only 18 percent of kitchen observed had a handwashing station with water and soap available.

It is recommended that:

- Key hygiene messages are reinforced throughout the curriculum and in extra-curricular activities
- Schools should have supplies that enable children to not just learn what good practices are but also be able to practice them. For example, handwashing stations should be present in all schools and kitchens and there should be receptacles for trash. Keeping school facilities clean should be a communal responsibility, and CRS should work with schools to develop strategies to maintain good hygiene practices.
- In terms of infrastructure improvement, prioritize the provision of safe water and sanitation facilities
- Minimum standards for food preparation and storage tools and equipment are developed together with the communities and work together with them to ensure that schools meet the standard
- CRS defines actions to be taken by schools that do not receive the required preventative health services (e.g. deworming and vitamin A supplementation). At a minimum, CRS should provide a list of project schools to implementing agencies so that they are aware of the existence of these schools. Schools are more likely to receive these services if they have been approved by MEST.

Starting status of key performance indicators

The starting points of key performance indicators are quite low, and while the FFE III projects cover a number of different activities, the focus on implementation should be on activities that will improve the key performance indicators.

It is recommended that:

- Project activities and attention should be directed towards activities that improve the key performance indicators
- The number of key performance indicators is reduced to help focus project activities to the most critical outputs or outcomes.
- Key performance indicators focus on the percentages of beneficiaries that meet a certain target rather than the numbers of such beneficiaries. This allows for external evaluators to be able to report on indicators without relying on monitoring data.

Determinants of school attendance

From the households surveyed, 83 percent of school-aged children were in school and 17 percent were out of school. Of those enrolled, many children do not attend regularly. Monitoring data maintains that only two-thirds of students attend school at least 80 percent of the time and on the day of the survey only about 74 percent of enrolled students were in attendance. The main reasons for why children were not enrolled in school were that schooling was expensive and children's labor were needed in the home or on the farm. Many parents were also choosing to send their boys to Qur'anic school as an alternative to formal schooling.

The evaluation included a barrier analysis to help determine what drives parent's behaviors to enroll their child in school by looking at differences between 'doers' and 'non-doers'. What we found was that compared to non-doers, doers were significantly more likely to: (i) link their child's future success to school attendance; (ii) attribute severe negative consequences for not attending school; (iii) be more optimistic about the likelihood that schooling will lead to better jobs and businesses; (iv) have a larger network of people who support and agree with the decision to enroll children in school; (v) find enrolling children in school easier; (vi) less likely to believe that it is God's will if children do not attend school.

It is recommended that:

- Behavior change messages focus on those areas where doers are different from non-doers e.g. in highlighting the positive benefits of schooling
- Behavior change messages target not just parents of school-going age but also others of the communities
- Programs and activities should focus on ways to reduce costs (direct and indirect) of schooling or provide opportunities for increased income. The latter may be beyond the scope of the program

Appropriateness of the design to the context

Overall, the design of the FFE III project is relevant for the national and local context. Included in the national priorities of GOSL are providing school meals, improving the literacy and numeracy skills of students, and improving skills and knowledge of teachers. The CRS FFE III project supports and contributes to the national priorities.

Discussions with local groups and community members in project chiefdoms also reveal that construction and support of schools is one of their top 3 priorities. Other priorities include having a health center in the community and having a safe source of water in the community. These priorities are

similar for men and women. The rehabilitation of school infrastructure and provision of WASH facilities in school will meet the needs of communities. In terms of school support, the focus was mostly on construction, but having more qualified teachers was mentioned by a few people as one of the top priorities. Very few mentioned provision of food as a top priority.

It is recommended that:

- CRS provide opportunities for MEST and donor partners to visit schools so they understand the conditions of schools and education in these areas, which may make them more inclined to provide additional support
- Other recommendations regarding design have been proffered above – but one worth mentioning again is for the project to focus on improving reading skills. In order to do this, it needs to be able to make the links between all the various activities and their contribution to improved learning. Teachers need specific training and ongoing coaching on reading instruction, and this support should take into account the literacy levels and English language proficiency of teachers themselves.
- Work with the communities and parents should also be geared towards how they can contribute to improved learning, and not just their contribution to construction and school feeding. Even parents who are not literate themselves can tell stories to their children, which helps develop oral language. They can also provide dedicated time and space for their children to read after school.
- Children lose a lot of what they learned during the long vacations. CRS might consider programs during the long holidays that will allow teachers and children to continue learning.

Enhancing the integration of two strategic objectives to deepen positive program results

The two strategic objectives are linked in the sense that improving the health of students and teachers could lead to reduced absenteeism from school. For example, there are research studies that have shown that deworming school children improve overall health and reduced absenteeism, and these benefits continued over a long period of time.¹⁷ Handwashing with soap is also known to reduce the incidence of diarrhea and other water or food-borne diseases.

¹⁷ For a summary of benefits of deworming, see: J-PAL Policy Bulletin. 2012. "Deworming: The Best Buy for Development." Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.

The program already recognizes the links between the objectives in its results framework. Perhaps what is remaining is for these messages to be fully integrated into the project such that schools and surrounding communities also understand the link.

The Ministry of Health and Sanitation (MOHS) has a school health division, but it is unclear how the FFE III program links with the MOHS either at the national level or at the district level to promote school health programming.

Another way to integrate the two programs is to develop reading materials for students that incorporate key health messages that the project wants to promote in a fun and engaging way.