FINAL EVALUATION REPORT

FOOD FOR EDUCATION "LEARNING FOR LIFE"

GUATEMALA

With the support of:

Catholic Relief Services (CRS) Guatemala and USDA, through an evaluation grant to:

Boston College School of Social Work

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Final Evaluation Report - Strengthening Reading and School Feeding in FY 2013 McGovern-Dole "Learning for Life" Project

Program: McGovern-Dole International Food for Education and Child Nutrition **Agreement Number:** FFE-520-2013/029-00
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Implemented by: Catholic Relief Services
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ACRONYMS

APCC	Asociación Proyecto Conrado de la Cruz
CRS	Catholic Relief Services - United States Conference of Catholic Bishops
CTA	Coordinador Técnico Administrativo / Technical and Administrative Coordinator for the Ministry of Education
DIDEDUC	Dirección Departamental de Educación de Guatemala / Departmental Office for the Ministry of Education
DIGEFOCE	Dirección General de Fortalecimiento de la Comunidad Educativa / Department of Educational Capacity Building for the Ministry of Education
EBI	Educación Bilingüe Intercultural / Intercultural Bilingual Education
DIGEBI	Dirección General de Educación Bilingüe Intercultural / Bilingual Education Office
FFE	Food for Education
IRB	Institutional Review Board
MINEDUC	Ministerio de Educación / Ministry of Education
PRODESSA	Proyecto de Desarrollo Santiago
PTA	Parent Teacher Association
USDA	United States Department of Agriculture
WFP	World Food Program

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EXECUTIVE SUMMARY

From 2013-2016, Catholic Relief Services-United States Conference of Catholic Bishops (CRS) in Guatemala implemented Phase I of the Food for Education (FFE) project, using donated commodities and funds provided by the United States Department of Agriculture (USDA) to accomplish the following: (1) Improve quality of literacy instruction; (2) Improve student attentiveness; and (3) Improve student attendance. The overall project is focused on the strategic objective to improve the literacy of school-age children in four municipalities in the department of Totonicapán.

The purpose of the final evaluation is to assess and analyze the performance of the project by comparing Final Evaluation findings with the results of the baseline and midterm evaluation studies in order to provide lessons learned and recommendations for USDA, program participants and other key stakeholders for future food assistance and capacity building programs.

The guiding questions for the Final Evaluation are the following:

1. Do project activities have a correlation with improved student performance?
2. Has the quality of literacy instruction improved?
3. Has student attentiveness improved?
4. Have students improved their attendance?
5. Are attendance and educational performance correlated?

The sample was drawn from the population of N=221 schools in the Department of Totonicapán, using a simple random sample of n=120 schools (see Table 1). Within selected schools, all 3rd and 6th grade students were given an assessment of reading comprehension and perceptions of the school environment. All directors, teachers (3rd grade, 6th grade, or multigrade), and parent volunteers were interviewed about their perceptions of the effectiveness and implementation of FFE. Parent focus groups (n=20) were conducted at randomly selected schools across municipalities. All CTAs (n=9) in the Department of Totonicapán were interviewed, as were project staff with CRS and implementing partners (n=13). Two representatives of USDA were also interviewed by phone on their perspectives of FFE effectiveness and implementation in relation to the CRS FFE project in Guatemala.

Table 1. Sample

Municipality	Schools	Students		Principals	Teachers	Parents	Parent Focus Groups	CTAs	Project Staff
		3rd Gr.	*6th Gr.*						
Momostenango	70	1,356	1,083	68	139	265	14	6	13
San Andres Xecul	9	249	186	9	26	37	0	1	
Santa Lucia la Reforma	24	264	157	22	36	94	4	1	
San Bartolo Aguas Calientes	17	165	164	17	29	82	2	1	
Total	120	2,034	1,590	116	230	478	20	9	13

A. RESULTS

Results of the Strategic Objective and Results Indicators are outlined below. The Results Indicator matrix can be located in Appendix A. Analysis of findings related to the cross-cutting questions of Relevance, Effectiveness, Impact, Efficiency, and Sustainability, can be found in the Discussion section of the report.

Reading Performance. Results were positive for children's reading performance (Strategic Objective), but 6th graders failed to meet their final targets for increased literacy (+10 points above baseline). At final evaluation, girls scored 33.87% correct on the reading comprehension assessment, compared with 25.19% at baseline and 31.20% at midterm. Boys scored 32.98% at final evaluation, compared with 24.31% at baseline and 31.19% at midterm. By contrast, 3rd grade students demonstrated great improvement in literacy at final evaluation, compared with baseline and midterm scores. At final evaluation, boys scored 31.30% on reading comprehension, compared to 8.88% at baseline and 18.87% at midterm. Girls scored 29.76% at final evaluation, compared to 9.19% at baseline and 17.59% at midterm. These scores are well above the target of 10+ points above baseline.

Quality of Literacy Instruction. Almost all teachers (98.70%) used one or more new and innovative teaching techniques (Indicators 1.1, 1.1.4), an increase from the midterm evaluation and above the final target of 80%. Teacher attendance at final evaluation (83.3%) increased slightly from the midterm (81.7%) but fell short of the target of 90% (Indicator 1.1.1). All schools (100%) have been provided literacy instructional materials, meeting the final target. Nearly all principals have used new and quality teaching techniques and tools (93.10%), well above the final target of 75% (Indicator 1.1.5).

Student Attentiveness. Standardized assessments of classroom observations resulted in an average score of 52.07% attentiveness. In order from highest to lowest, the attentiveness score per municipality ranged as follows: San Bartolo Aguas Calientes (57.88%), Santa Lucia la Reforma (55.18%), Momostenango (51.61%), and San Andres Xecul (44.25%). However, the majority of teachers (85.0%) identified their students as being attentive (Indicator 1.2), exceeding the final target of 80%. Most principals rated students as being less hungry during the school day because of the program (92.59%) (Indicators 1.2.1, 1.2.1a).

Student Attendance. Student attendance increased significantly for girls but dropped substantially for boys. For 3rd grade girls, 90.6% attended classes at least 80% of the school year, an increase from 75.1% at midterm and well above the final target of 85% (Indicator 1.3a). For 6th grade girls, 87.10% attended classes at least 80% of the school year, an increase from 73.0% at midterm and above the final target of 85% (Indicator 1.3a). By contrast, 3rd grade boys attendance dropped to 68.52% from 80.8% at midterm, well below the target of 85% (Indicator 1.3). Sixth grade boys' attendance dropped to 65.21% from 76.8% at midterm, also well below the target of 85% (Indicator 1.3). The number of children who participated in extra-curricular activities by the final evaluation totaled 3,594, meeting the final target of 3,505.

The average number of days missed by students because of illness dropped to less than one day (M=0.57 day), a significant decrease from 4.1 days at midterm and exceeding the final target of 2 days lost to illness (Indicator 1.3.2). The number of educational facilities constructed or rehabilitated totaled 416 schools, exceeding the final target of 312 schools (Indicator 1.3.3). Boys saw a significant decline in enrollment, with an 8.9% drop in enrollment in 2016 (16,790) compared to baseline in 2014 (18,437). This pattern held true for girls as well, with a 7.7% drop in enrollment in 2016 (16,394) compared to baseline in 2014 (17,765).

Few parents were able to identify three benefits of primary education for their children. At final evaluation, only 16.81% identified three reasons, compared to 35.9% at midterm and well below the target of 80.0% (Indicator 1.3.5). We speculate that these results reflect a problem in measurement of this indicator, rather than a reflection of parents' commitment to their children's education.

Most schools in the sample (115 out of n=120; 95.83%) had a school government; thus it is estimated that 212 schools out of the population of 221 FFE schools have developed a school government. While this number is short of the final target of 221 schools, not all 221 schools have cooperated with CRS to implement FFE fully, because they did not participate in the school feeding program; thus, the estimate of 212 schools with a school government likely represents all schools fully implementing FFE. A majority of principals (74.55%) stated that school governments have been strengthened, and increase from 67.5% at midterm. Most schools (107 of 115 schools; 93.0%) have a school improvement plan; thus, we estimate that 216 of 221 schools have a school improvement plan, an increase from 142 at midterm, but short of the final target of 221.

Increased Capacity of Government Officials. About half (50.43%) of disbursements arrived on time (Indicator 1.4.3), an increase since midterm (21.4%) and greatly exceeding the expectations of the final target of 10.0%. 215 schools are estimated to have a PTA that contributes to their schools (Indicator 1.4.4), the same as the midterm, and likely reflecting all participating FFE schools. At final evaluation, 26 MINEDUC staff have been trained (Indicator 1.4.1), an increase from 14 at midterm and exceeding the final target of 20.

B. RECOMMENDATIONS

Brief recommendations are provided below. Please see the Recommendations section of the report for the full explanation of each recommendation.

(1) Conduct a barriers analysis to explore why literacy for 6th graders has plateaued.
(2) Conduct a barriers analysis to examine reasons behind decreasing school enrollment and attendance. Also examine why teachers' reports of attentiveness, and observed attentiveness, are significantly different.
(3) Conduct a barriers analysis to examine reasons behind low teacher attendance rates.
(4) Vary the food provided by the program, and ensure that food is culturally appropriate.
(5) Reinforce the benefits of education with parents and improve future measurement of this indicator.
(6) Strengthen and coordinate training on bilingual education for teachers
(7) Consider expanding the Spaces to Grow program, and highlight potential benefits to directors and teachers
(8) Articulate what sustainability looks like for the FFE program, communicate this with beneficiaries, and enhance beneficiaries' capacities to operate independently.

Below is a simplified Results Indicator Matrix comparing baseline, midterm, and final evaluation indicators. Please see Appendix A for the full set of information on indicators.

Table 2. Simplified Indicator Matrix Comparing Baseline, Midterm, and Final Evaluation Results

Result	Indicator	Baseline	Midterm	Final Target	Final Evaluation
Level of Student Reading Performance					
Improved literacy of school-aged children	Percent of girls literate (% correct)	25.19%	**31.20%**	+10%	**33.87%**
	Percent of boys literate (% correct)	24.31%	**31.19%**	+10%	**32.98%**
Has the Quality of Literacy Instruction Improved?					
Improved quality of literacy instruction	1.1 Percentage of teachers in target schools who demonstrate use of new and quality teaching techniques or tools[1]	64.9%	**87.5%**	80%	**98.70%**
More consistent teacher attendance	1.1.1 Percentage of teachers at target schools who attend and teach school at least 90% of scheduled school days	88.8%	**81.7%**	90%	**83.30%**
Improved literacy instructional materials	1.1.3b Percentage of classrooms in target schools with literacy instructional materials (textbooks, workbooks, etc.) sufficient for effective instruction	75.4%	**100%**	100%	**100.00%**
Increased skills and knowledge of teachers	1.1.4 Percent of teachers in target schools who demonstrate use of new and quality teaching techniques or tools	0.0%	**87.5%**	70%	**98.70%**
Increased skills and knowledge of school administrators	1.1.5 Percent of school administrators in target schools who demonstrate use of new and quality teaching techniques or tools	0.0%	**87.0%**	75%	**93.10%**
Has Student Attentiveness Improved?					
Improved students´ attentiveness	1.2 Percent of students in classrooms identified as attentive by their teachers	27.0%	**82.2%**	80%	**85.15%**
Reduced short term hunger	1.2.1 Percent of 3rd grade students in target schools who indicate they are not hungry during the school day	15.8%	**86.9%**	60%	--
	1.2.1a Percent of 6th grade students in target schools who indicate they are not hungry during the school day	8.2%	**73.2%**	60%	--
Have students improved their attendance?					
Improved student attendance	1.3 Percent of boys regularly (80%) attending USDA supported classrooms/schools	60.0%	**80.8%**	85%	**68.5%**
			76.8%	85%	**65.2%**
	1.3a Percent of girls regularly (80%) attending USDA supported classrooms/schools	71.7%	**75.1%**	85%	**90.6%**
			73.0%	85%	**87.10%**

[1] This indicator was calculated as the percentage of teachers who used one re more of the following new and innovative tools and/or techniques: read the title, look the images, look at the structure/type of reading, exercises to identify the theme, exercises to identify the main ideas, exercises to identify the main events, exercises to identify the main characters, students take turns to read aloud, and choral reading.

Result	Indicator	Baseline	Midterm	Final Target	Final Evaluation
Level of Student Reading Performance (Continuation)					
Increased economic and cultural incentives (or decreased disincentives)	1.3.1 Number of school children who participate in extra-curricular school activities	1,820	**2,400**	3,505	**3,594**
Reduced health related absences	1.3.2 Average number of school days missed by students due to illness	**2.5** days **67.6%** from 1-5 days	**4.1** days **66.3%** of students missed school from 1-5 days per year	2 days	**0.57** days **63.06%** of students missed school from 0-5 days per year
Improved school infrastructure	1.3.3 Number of educational facilities (school buildings, classrooms, and latrines) rehabilitated / constructed as a result of USDA assistance	0	**244**	312	**416**
Increased student enrollment	1.3.4 Percent increase in boys enrolled in school as a result of USDA assistance	0%	**- 1.0%** 18,245 (2015)	4% 18,437[2]	**-8.9%** 16,790 (2016)
	1.3.4a Percentage increase in girls enrolled in school as a result of USDA assistance	0%	**- 2.6%** 17,307 (2015)	4% 17,765[3]	**-7.7%** 16,394 (2016)
Increased community understanding of the benefits of education	1.3.5 Percentage of parents in target communities who can name at least three benefits of primary education	96.4%	**35.9%**	80%	**16.81%**
School governments	Number of school governments established	213	**162**	221	**212**
	Number of school governments strengthened		**67.5%**		**74.55%**
Improvement plans	Number of existing school improvement plans	142	**142**	221	**216**

[2] This number was obtained from the 2014 baseline report.
[3] This number was obtained from the 2014 baseline report.

Result	Indicator	Baseline	Midterm	Final Target	Final Evaluation
Increased Capacity of Government Officials					
Increased government support	1.4.3 Percentage of MINEDUC disbursements (financial or material) which arrive on time to the appropriate institution.	13.1%	**21.4%**	10%	**50.4%**
Increased engagement of local organizations and community groups	1.4.4 Number of PTAs contributing to their school as a result of USDA assistance	69	**215**	221	**215**
	1.4.4a Number of PTAs that have developed a school improvement plan	18	**62**	133	**212**
Increased capacity of government organizations	1.4.1 Number of DIDEDUC and DIGEFOCE staff who have increased their capacity to implement their roles and responsibilities	0	**14**	20	**26**

FINAL EVALUATION REPORT

FOOD FOR EDUCATION "LEARNING FOR LIFE" GUATEMALA

A. Introduction and Background

i. Introduction

Food for Education (FFE) programs are developed to promote nutrition, and health of school age children, and indirectly to promote economic growth and social equity (Alderman & Bundy, 2012; Martorell, 1999). Evidence suggests that FFE programs alleviate immediate hunger, increase enrollment in schools, and attendance among school aged children (Alderman & Bundy, 2012; Cheung & Perrota, 2010; Alderman, Gilligand, & Lehrer, 2012; WFP, 2007). In addition, FFE programs promote the investment in human capital, which in long-term help to reduce poverty, and promote community and economic growth (Alderman & Bundy, 2012; Martorell, 1999). The primary purpose of the McGovern-Dole Food for Education initiative, one of the most prominent school feeding programs implemented globally, is to increase childhood literacy (USDA, 2016).

ii. Background

From FY2013-2016, funded by USDA, CRS implemented Food for Education in Guatemala focused on the strategic objective to improve the literacy of school-age children in four municipalities in the department of Totonicapán.

The purpose of the final evaluation is to assess and analyze the performance of the project by comparing Final Evaluation findings with the results of the baseline and midterm evaluation studies in order to provide lessons learned and recommendations for USDA, program participants and other key stakeholders for future food assistance and capacity building programs.

iii. Key Evaluation Questions

The questions guiding this evaluation are as follows:

1. Do project activities have a correlation with improved student performance?
2. Has the quality of literacy instruction improved?
3. Has student attentiveness improved?
4. Have students improved their attendance?
5. Are attendance and educational performance correlated?

B. Methods

i. Study Sites and Target Population

The four Municipalities included in this project are the following:

1. Momostenango;
2. San Andrés Xecul;
3. Santa Lucía de la Reforma;
4. San Bartolo Aguas Calientes.

The project focused on several key actors, including elementary students, teachers, administrators, volunteer parents, and government officials. The target population comprises those actors in the 120 school across 4 municipalities.

ii. Sample

From the population of schools (N=221), the study drew a simple random sample of n=120 schools. This number gives 95% confidence in the representativeness of responses, with a margin of error of ±6.1. This number of schools is the same as used in the midterm evaluation, and substantially more than schools used in the baseline evaluation (n=69). In each school, all available 3rd and 6th grade students were given a reading comprehension assessment. Sixth graders also completed a measure of their perceptions of the school environment (see measures section). Each school principal was interviewed using a structured protocol. All available teachers (3rd grade, 6th grade, and multigrade) and parents were also invited to participate in structured interviews and all available parent volunteers were invited to participate in a focus group.

The sample numbers are provided in Table 1. Among parents, 80% (n=379) were female, and 98% (n=465) identified as being Maya K'iche'. The mean of K'iche' language skills are as follows: the level of speaking, and level of understanding are about 84.00 (SD=25.16), and 82.41 (SD=28.24), whereas the reading skills, and writing skills are much lower, about 20.43 (SD=28.31), and 19.80 (SD=28.96) respectively. In addition, 52.40% (n=120) of teachers were females. On average teachers had been teachers in that school for about 11 years (SD=6.51, and 4.68 months (SD=3.06). 91.70% (n=210) of teachers were Maya K'iche'. The mean of K'iche' language skills are as follows: the level of speaking, and level of understanding are about 64.48 (SD=32.13), and 75.76 (SD=28.62), compared with the reading skills, and writing skills at about 58.49 (SD=31.89), and 56.39 (SD=31.08) respectively. 57.76% (n=67) of principals are male. Principals had worked at the school an average of 10 years (SD=6.59) and 4.71 months (SD=3.27). 93.10% self-identify as Maya K'iche', 6.03% as Ladino and 0.86% as other. Finally, 55.56% (n=5) of CTAs are male and the mean length of time that CTAs had worked with the school was 7 (SD=3.20) years and 3.33 (SD=3.32) months.

All participants underwent a process of informed consent prior to their participation. Parents who were present on the day of data collection provided parental consent for their children's participation; parental consent was waived for parents who were not physically present. Data collection supervisors read the child assent form to all children prior to reading comprehension assessments, and children were given the opportunity to ask questions. All protocols were reviewed and approved by the Boston College Institutional Review Board (IRB).

C. Measures

Multiple data collection tools were employed for data collection (see Appendix D). These include the following:

i. Reading Comprehension Test

The Reading Comprehension Test is a 30-question reading assessment test developed in Spanish by PRODESSA. This test was administered to all 3rd and 6th grade students present on the day of data collection in the 120 schools in the sample.

ii. School Environment Measure

A School Environment Measure was given to all 6th grade students to assess their perceptions of school in terms of relationships with teachers and peers. This measure is a combination of standardized measures, including the Negative School Environment Index (Moon & Alarid, 2015); the School Connectedness Measure (Zullig et al., 2015); and the School Climate Measure - Revised (Zullig et al., 2015). Results of this measure are presented in Appendix B.

iii. Focus Groups for Parent Volunteers

Parent Volunteers at each school were invited to participate in a focus group. These focus groups followed a semi-structured protocol, and assessed volunteers' perceptions of the program's relevance, effectiveness, and adequacy.

iv. Interviews with Principals, Teachers, School Administrators, PTA members, parents, CTAs, and project staff

Structured interviews were completed at schools with all 3rd and 6th grade teachers (or multigrade teachers in unitary school), and parent volunteers, related to their perspectives on the multiple aspects of FFE implementation. Directors were also interviewed and asked similar questions, as well as about student and teacher attendance. In addition, all CTAs were interviewed in their respective offices across the Department, and project staff were also interviewed about their perspectives on the strengths and challenges of FFE implementation. Two USDA staff were also contacted by phone to discuss their perspectives.

v. Structured Classroom Observations and Child Attentiveness

A protocol was developed to assist enumerators to observe teachers in the classroom context, and establish the extent to which teachers have improved their teaching skills using the Kemom Ch´ab´al methodology, as well as the extent to which children were paying attention in class during the period of observation.

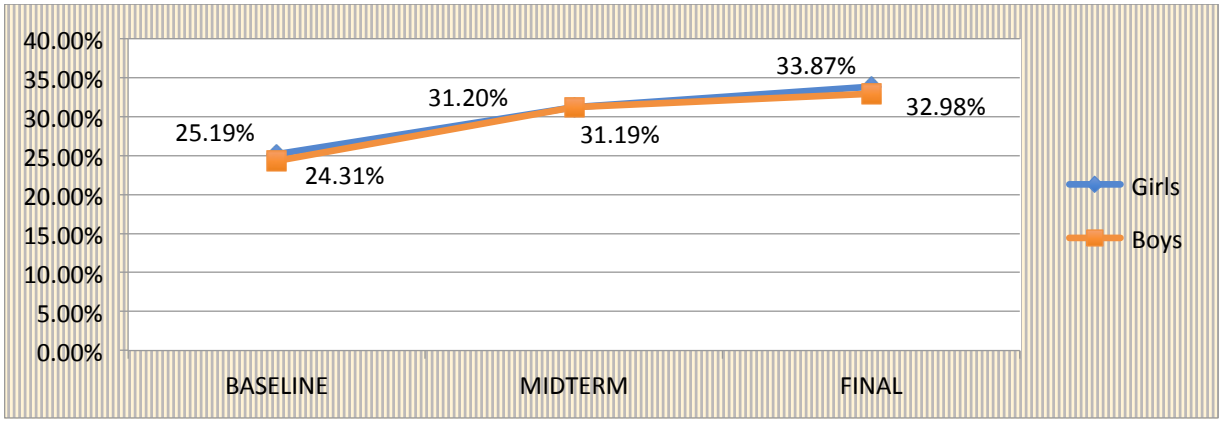
RESULTS

A. CHILD LITERACY (STRATEGIC OBJECTIVE)

For 6th grade boys and girls, literacy rates increased substantially compared with baseline results, but only marginally compared with midterm results (see Figure 1). At final evaluation, girls scored 33.87% correct on the reading comprehension assessment, compared with 25.19% at baseline and 31.20% at midterm. Boys scored 32.98% at final evaluation, compared with 24.31% at baseline and 31.19% at midterm. This indicator thus falls short of the goal of +10 points added to literacy scores since baseline. Of note, these rates are calculated as the average percentage of correct responses out of 100.0% for each

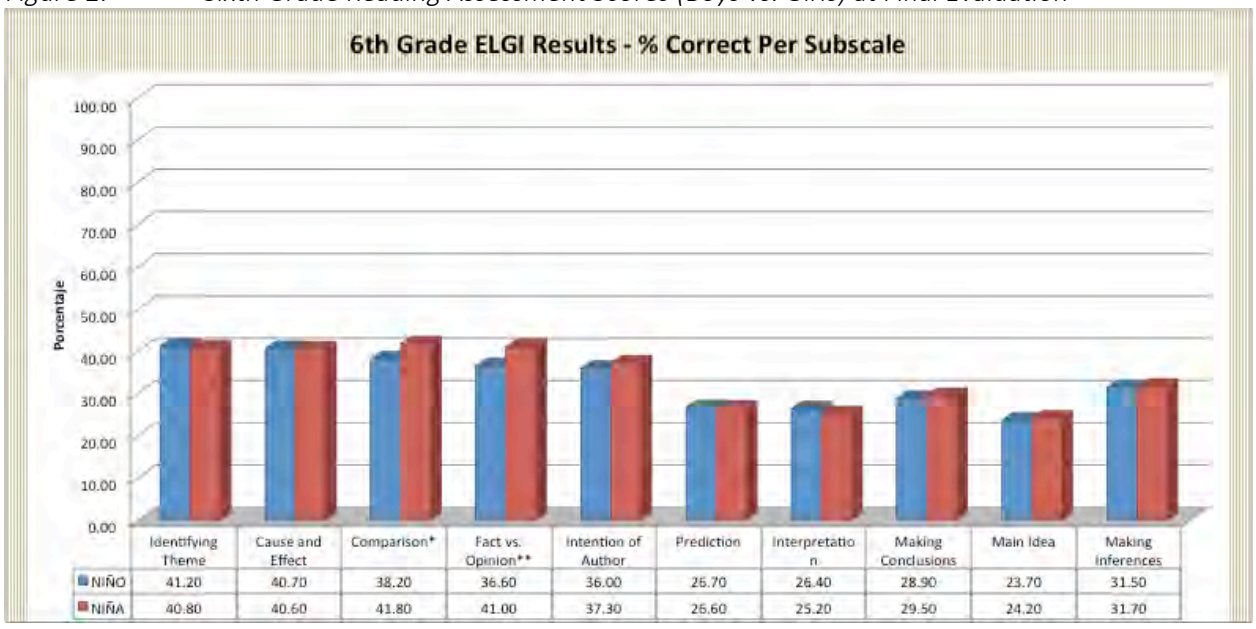
subgroup (see Figure 1), and so represent the amount of answers correctly identified by children in the assessment. This methodology was also used in the baseline and midterm evaluations. These numbers do not reflect the actual literacy rates of children, which should be calculated as the percent of children who score 60% or higher on reading comprehension assessments. Using this standard, n=80 children in 3rd grade achieved literacy (3.9% of n=2,034), and n=46 6th grade children achieved literacy (2.9% of n=1,590).

Figure 1. Sixth Grade Reading Assessment Scores at Baseline, Midterm and Final



Some variation emerged on the percentage of correct answers on the reading comprehension assessment subscales. Overall, 6th grade students performed highest on the "Identifying Themes" and "Cause and Effect" subscales, and lowest on the "Main Idea", "Prediction", and "Interpretation" subscales (see Figure 2). Girls scored higher than boys to a statistically significant degree on the "Comparison" ($p<.05$) and "Fact vs. Opinion" ($p<.01$) subscales.

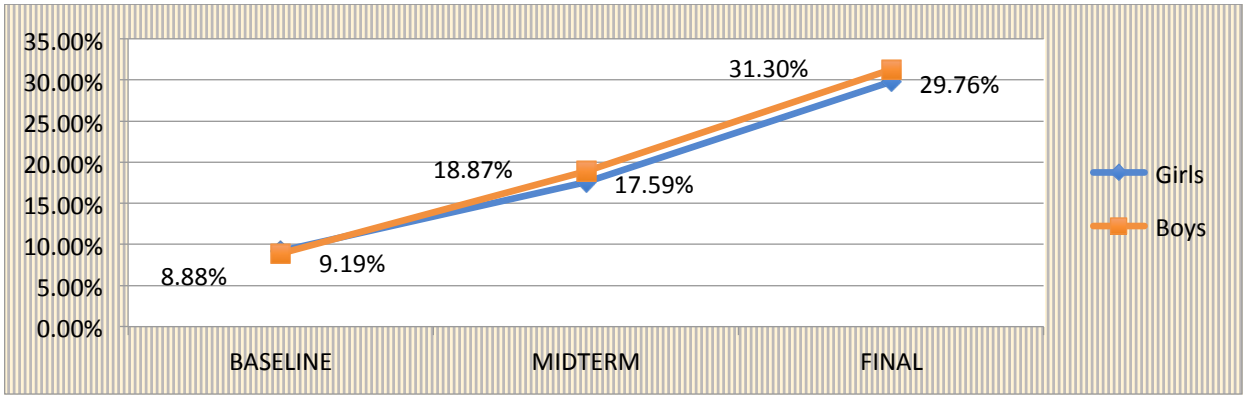
Figure 2. Sixth Grade Reading Assessment Scores (Boys vs. Girls) at Final Evaluation



** p<.05; ** p<.01*

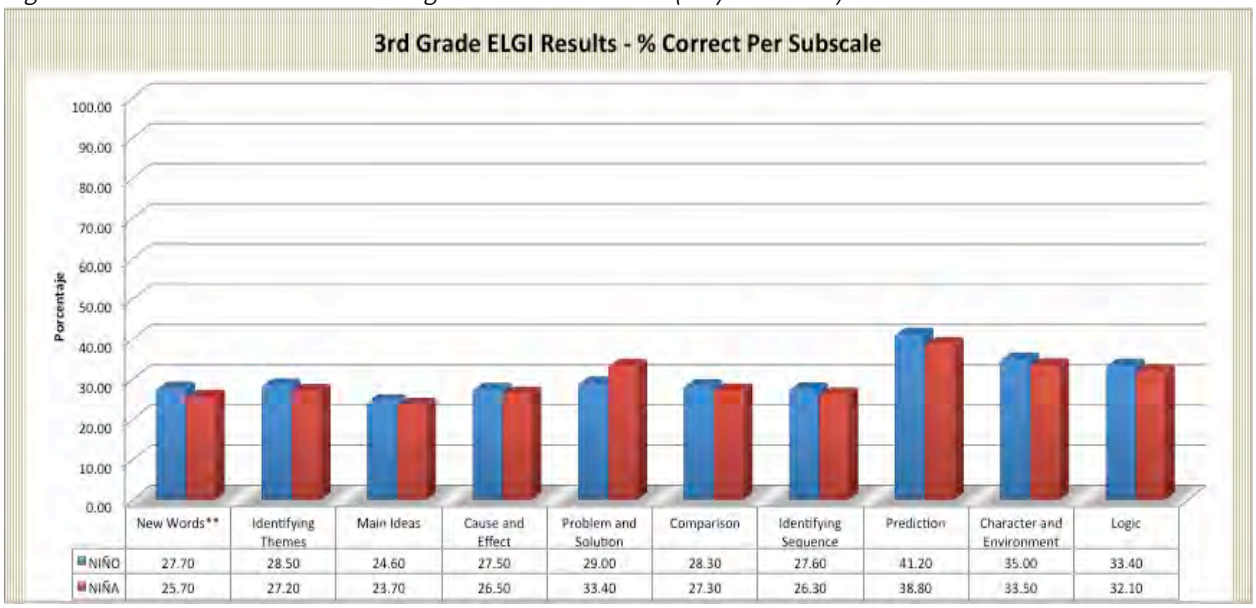
Third grade students demonstrated great improvement in literacy at final evaluation, compared with baseline and midterm scores (see Figure 3). At final evaluation, boys scored 31.30% on reading comprehension, compared to 8.88% at baseline and 18.87% at midterm. Girls scored 29.76% at final evaluation, compared to 9.19% at baseline and 17.59% at midterm. These scores are well above the target of 10+ points above baseline.

Figure 3. Third Grade Reading Assessment Scores at Baseline, Midterm and Final



As with 6th graders, subscales for reading comprehension also varied for 3rd graders (see Figure 4). Third graders scored highest on the "Prediction", "Character and Environment", and "Logic" subscales, and lowest on the "Main Ideas" and "New Words" subscales. Boys scored higher than girls to a statistically significant degree on the "New Words" subscale ($p<.01$; see Figure 4).

Figure 4. Third Grade Reading Assessment Scores (Boys vs. Girls) at Final Evaluation



	New Words**	Identifying Themes	Main Ideas	Cause and Effect	Problem and Solution	Comparison	Identifying Sequence	Prediction	Character and Environment	Logic
NIÑO	27.70	28.50	24.60	27.50	29.00	28.30	27.60	41.20	35.00	33.40
NIÑA	25.70	27.20	23.70	26.50	33.40	27.30	26.30	38.80	33.50	32.10

** $p<.01$

Parents believed that food provision at school helped their children academically: 43.82% (n=209) of parents stated they strongly agreed that their children have learned more due the provision of food at school, and 51.57% (n=246) of parents stated they agreed that school food helped their children to learn more.

B. QUALITY OF LITERACY INSTRUCTION (RESULT 1.1)

i. Teachers' Use of New Techniques and Tools (Result 1.1)

The Kemom Ch'ab'al Methodology encourages reading the title; looking at images; and looking at the structure before reading. According to principals and teachers, children are encouraged to do a series of steps both before and after they read. Oral exercises designed to identify the theme; main ideas; main events; and main characters are common after reading. Table 3 below shows how often these are incorporated principals and teachers.

Table 3. Steps Encouraged by Staff Before and After Reading

Steps	*Principals (n=112)*	*Teachers (n=230)*
	Number (%)	*Number (%)*
Before Reading		
Read the Title	93 (83.04%)	183 (71.91%)
Looking at images	101 (90.18%)	213 (93.01%)
Looking at the structure/type of reading	84 (75.00%)	174 (75.98%)
After the reading		
Exercises to identify the theme	86 (76.79%)	160 (69.87%)
Exercises to identify the main ideas	87 (77.68%)	161 (70.31%)
Exercises to identify the main events	75 (66.96%)	138 (60.26%)
Exercises to identify the main characters	92 (82.14%)	155 (67.69%)

Almost all teachers (98.70%) stated they used one or more new and innovative teaching techniques, such as teaching techniques other than silent individual reading, or one or more activities encourage through the Kemom Ch'ab'al methodology.

Principals were asked how many of the teachers in the school lead activities in K'iche' and Spanish. Only 11.21% of principals said that no teachers within the school lead activities in both languages. Across all schools, the number of teachers doing activities in both K'iche' and Spanish ranged from 0 to 16 with an average of 4.06 teachers (SD=3.39). The principals said that on average, schools were spending 145 minutes (SD=136.85) dedicated to reading in Castilian/Spanish (mode 150 minutes, range = [30, 1200]. On the other hand, principals reported that teachers spent an average of 101 minutes per week dedicated to reading K'iché (SD= 91.63, mode 30, range = [0,675]). Teachers stated they read weekly in Spanish on average 130.98 minutes (SD=89.67, range= [5,750]), and they read weekly in K'iche' on average 91.47 minutes (SD=73.11, range= [0, 450]). About half, 54.35% (n=125) of teachers said they have enough training about bilingual teaching.

ii. Teacher Attendance (Result 1.1.1)

On average, principals reported that teachers across all grades attended school 155 days during the 2016 school year (see Figure 5). When looking at teachers by grade level, multigrade level teachers attended the least frequently with an average of 126 days, and the attendance rates improved with each year in school so that the sixth grade teachers attended an average of 161 days in the 2016 school year. However, it should be noted that of the 116 Principals, 42.24% (n=36) had incomplete records of teacher attendance, and 31.03% (n=36) had no record. According to the principals, 87 of 116 (75.00%) felt that the school improvement plans have influenced teacher attendance, and 75% (n=87) of principals felt that the intervention had helped to improve teacher attendance, whereas 25% said the intervention did not help in this regard. The chart below shows the average of teachers' attendance in number of days per grade, during 2016. Following the program intervention, there was an average of 5.65 (83.30%) teachers per school with an attendance rate of at least 90%. In addition, 75% (n=315) of parents stated the teachers attended[4] at least 90% of the school days. According to the parents, the teachers attended on average 87.02 (SD=19.59) school days, whereas principals reported that teachers on average attended 156.02 (SD=33.14) days of school.

Figure 5. Average Teacher Attendance in Number of Days by Grade Level

[4] Parents' perception of teachers' attendance. School registers of teachers' attendance were not available.

iii. Establishing School Improvement Plans (Result 1.1.1)

According to principals, most schools (107 of 115 schools; 93.0%) have a school improvement plan. CRS monitoring data that show 216 schools have a signed agreement to implement school improvement plans. Most principals (96%) said that the Educational Council/Board of Education participated in the development of the school improvement plan. A slightly smaller number, 91% of principals (n=97) said that they can explain the improvement plan, and 91% (n=95) of principals said the plan has been implemented within their school. Of the 107 principals who responded, 40.19% (n=43) said the plan was very useful. The majority, 57.01% (n=61) said the plan was useful. Only a few felt it was somewhat useful or not useful (n=1, 0.93%; and n=2, 1.87%, respectively).

iv. School Materials (Result 1.1.3b)

CRS monitoring data show that school materials have been disseminated to 100% of target schools, meeting the final target indicator. According to the principals, a variety of tangible materials were received by the schools. The number of classrooms per school which had materials ranged from 0 to 20 classrooms. The average number of classrooms per school was 5.06 (SD= 4.05). The table below explains the types of materials received.

Table 4. Type of Materials Received (N=112)

Type of Material	*Number (%)*
MINEDUC books	108 (96.43%)
Work books	67 (59.82%)
Pencils, crayons, markers, watercolors, erasers, paint	86 (76.79%)
Glue, scissors, masking tape	88 (78.57%)
Poster, cardboard, construction paper	88 (78.57%)
Books about Kemom Ch'ab'al methodology	103 (91.96%)
Teaching Portfolios	55 (49.11%)

The materials are being actively used by 110 (98.21%) of principals. The quality of the materials was rated as very good by 19.64% (n=22), good by 62% (n=55.36), and regular by 25% (n=28). 96.52% of teachers (n=222) stated the material was useful, and 90.43% (n=208) of teachers stated the material was written in K'iche' and Spanish. In addition, 97.39% (n=224) of teachers stated the students were interested in the

material, and 32.45% (n=73) of teachers stated the material was adequate or more than enough for all children. On the other hand, only 50% of principals felt the amount of materials was adequate or more than enough for all children.

Data collectors completed structured observations of randomly selected classrooms (see Table 5). The items were ranked from 1 (strongly disagree) to 5 (strongly agree). The items that scored highest were Lighting and Ventilation are Adequate with a score of 4.06 (SD=0.87), and the Blackboard is in Good Condition with a score of 4.02 (SD=0.81). The item with the lowest score was the Desks are Cluttered with a score of 2.10 (SD=1.01). Overall classroom condition scores indicate a mean of 60.47% (SD=16.67%). For the calculation of the overall score, included the reverse coding of the item referred to "the desk are cluttered". Therefore, higher scores indicated better classroom conditions ("(R)" refers to reverse-scored items).

Table 5. Observation of Classroom Conditions

Item	*N*	*Range*	*Mean (SD)*	*% Agree or strongly agree*
The desks are placed in a circle or U	227	1-5	2.80 (1.35)	39.65%
The desks are cluttered (R)	226	1-5	2.10 (1.01)	13.12%
The desks are in good condition	226	1-5	3.70 (1.06)	73.07%
The classroom is clean and tidy	227	1-5	3.87 (1.00)	79.74%
Lighting and ventilation are adequate	225	1-5	4.06 (0.87)	87.56%
The blackboard is in good condition	223	1-5	4.02 (0.81)	88.34%
The teacher has classroom materials for the children	226	1-5	3.95 (0.88)	84.95%
Overall Classroom Conditions (Standardized)	**218**	**0-100%**	**60.47% (16.67%)**	

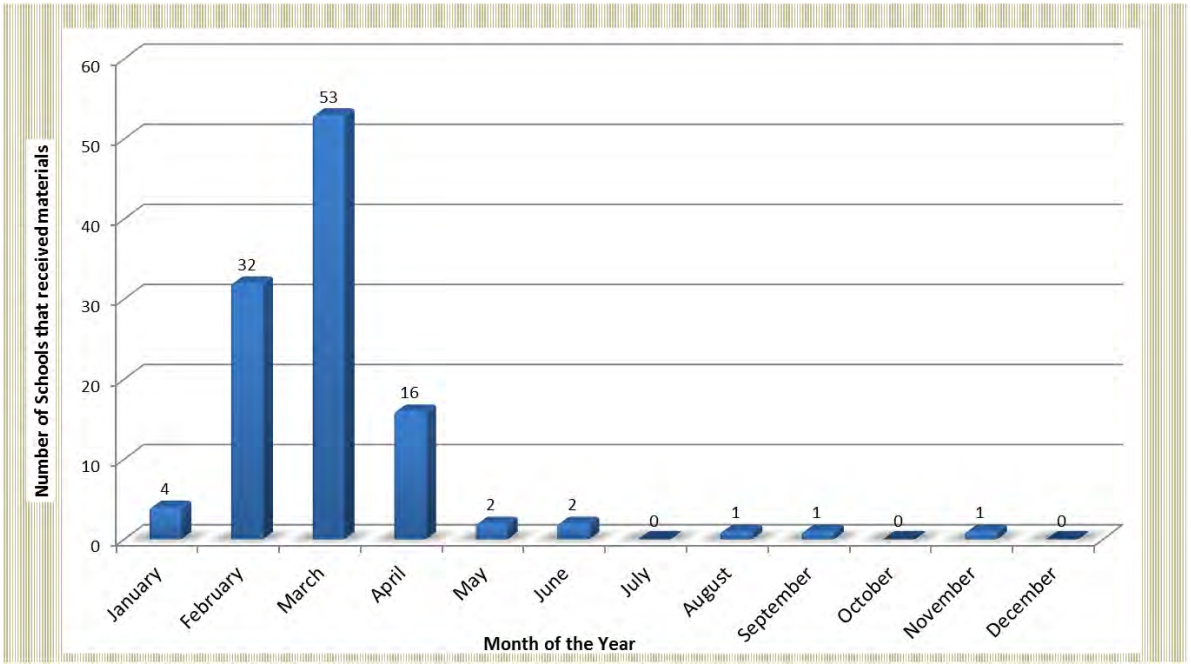
v. Kemom Ch'ab'al Methodology (Result 1.1.4)

Almost all principals (96.55%, n=112) have implemented the Kemon Ch'ab'al Methodology into the schools. Across 112 schools, Principals reported that only one teacher in the school was applying the Kemom Ch'ab'al Methodology. Almost all (97.38%) teachers (n=223) stated they used the Kemom Ch'ab'al methodology. In addition, teachers stated that they have attended on average to 3.34 (SD=2.01, range=[0,15]) trainings of the Kemom Ch'ab'al methodology. The total number of teachers in a school varied widely but there was a mean of 4.98 teachers (range=[1,22], SD= 3.94). Most commonly, schools had 3 teachers (n=23, 20.35%), and over 78% of schools had 6 or fewer teachers.

According to the principals, 34.48% (n=40) felt that the Kemom Ch'ab'al Methodology was very effective in improving students' reading comprehension. Another 59.48% (n=69) felt it was effective, and only 6.03% (n=7) felt it was somewhat effective. Similarly, 34.48% (n=40) of principals felt the school feeding program was very effective in improving students' reading comprehension. Another 61.21% (n=71) felt school feeding was effective, and 4.31% (n=5) said somewhat effective in improving student's reading comprehension.

The Kemom Ch'ab'al materials were distributed to schools throughout 2016. Below is a chart detailing when materials were received, the highest months were March with 47% and February with another 29% of school receiving materials at that time.

Figure 6. Month in which the schools received Kemom Ch'ab'al materials



Various study participants were asked about the steps in the Kemom Ch'ab'al methodology (see Table 6). Below is a table detailing their roles, and how many could name each step of the methodology. For principals, almost all could remember to scan (89%, n=98) and the least could remember exercises about the reading (68%, n=75). For teachers, the most people could remember to scan (86.05%, n=186) and the least could remember review the exercise (69.30%, n=149).

Table 6. Steps of the Kemom Ch'ab'al Methodology Remembered (N=110)

Steps	Principals	Teachers
	Number (%)	Number (%)
Scan the reading	98 (89.09%)	186 (86.05%)
Read the text	90 (81.82%)	183 (85.12%)
Exercises about the reading	75 (68.18%)	167 (77.67%)
Review the exercises	76 (69.09%)	149 (69.30%)
Reflect on the content of the reading	81 (73.64%)	151 (70.23%)

Teachers were asked to identify strengths and weaknesses of the Kemom Ch'ab'al methodology. 311 codes were extracted from 225 comments made regarding strengths, and 241 codes were extracted from 230 comments made regarding weaknesses. As shown in table 7, the main strengths were related to the learning process with 30.55% (95) of comments, referred to the development of critical thinking, improvement of reading comprehension, improvement of writing, among others.

Table 7. Strengths identified by teachers regarding the Kemom Ch'ab'al Methodology

Cluster	n (%)
Learning (critical thinking, improve reading comprehension, increase vocabulary, improve writing, among other)	95 (30.55%)
General benefits and strengths of the methodology (socialization, improve communication skills, it's interesting for children, the structure of the methodology, promotes child participation, it can be applied to other courses, among others)	58 (18.65%)
Content (is adequate to the context and ages, it's understandable, the topics of the readings, among others)	67 (21.54%)
Language (is bilingual, children learn Spanish, promotes K'iche')	49 (15.76%)
Tools and techniques (there are several types, the material is given in time, enough for all children, and pretty)	42 (13.50%)

As shown in table 8, there were two main weaknesses/suggestions. First, 61.83% (149) of comments were related to the variation in the K'iche' language of the books and the K'iche' people in the community spoke. Second, 13.69% (33) of comments were related to the length of the readings. In addition, about 5% of comments referred to no weaknesses. Other weaknesses mentioned by teachers (19.48% of comments) were: teachers did not speak K'iche' and did not felt comfortable teaching it (7.88%), the content or instructions were hard to understand (3.73%), among others (see Table 8).

Table 8. Weaknesses identified by teachers regarding the Kemom Ch'ab'al Methodology

Cluster	n (%)
Variation in K'iche' language between the methodology material and the community	149 (61.83%)
Length of the readings	33 (13.69%)
The teachers did not speak K'iche' and did not felt comfortable teaching it	19 (7.88%)
No weaknesses	12 (4.98%)
The methodology is not adequate to the community/school context	10 (4.15%)
Content and instructions are hard to understand	9 (3.73%)
The material is insufficient	3 (1.24%)
Other (such as too much K'iche' or too much Spanish, or students are not interested, Michelle lectures, among others)	6 (2.49%)

Most teachers agreed 68.30% (n=153) or strongly agreed 21.80% (n=49) that the content of the Kemom Ch'ab'al methodology is relevant to the cultural context.

vi. Reading Techniques (Result 1.1.3)

Teaching techniques other than silent individual reading are included in many classrooms. According to principals, 76.19 % of teachers (n=80) apply techniques of choral reading in the classroom and 70.48% (n=74) of teacher utilize taking turns to read aloud. Similarly, 76.42% (n=175) of teachers stated they applied techniques of choral reading in the classroom, and 71.05% (SD=162) of teachers stated they applied the technique of taking turns to read aloud.

vii. Administrator's Use of New/Quality Techniques (Result 1.1.5)

93.10% (n=108) of the principals themselves have utilized new and innovative teaching techniques. According to the principals, all teachers have improved their teaching skills because of the Learning for Life Program (see Table 9). 16.38% (n=19) of principals said their skills improved some, 14.66% (n=17) said they improved a lot, and 67.24% (n=78) said they improved very much. Principals supervise the teachers in the areas of Kemom Ch'ab'al Methodology, Classroom Management and New Teaching Techniques. Below is a table detailing the amount of time spent supervising teachers in each area. Across all topical areas, most principals only gave some or a little supervision to teachers.

Table 9. Amount of Principal Oversight Given to Teachers

Topic of Supervision	n	*Very much*	*A lot*	*Some*	*A little*	*Very little*
		Number (%)	*Number (%)*	*Number (%)*	*Number (%)*	*Number (%)*
Kemom Ch'ab'al	112	11 (9.82%)	15 (13.29%)	23 (20.54%)	46 (41.07%)	17 (15.18%)
Classroom Management	111	10 (9.01%)	22 (19.82%)	29 (26.13%)	34 (30.63%)	16 (14.41%)
New Teaching Techniques	111	11 (9.91%)	23 (20.72%)	26 (23.42%)	36 (32.43%)	15 (13.51%)

viii. Trainings (Result 1.1.5)

Almost all 96% of principals were trained in the Kemom Ch'ab'al Methodology. Very few principals (46%) in comparison to school boards (79%) were trained in Funds Management. 99.13% of teachers (n=228) were trained. The most common training attended was about the Kemom Ch'ab'al methodology (97.39% of teachers were trained), followed by school improvement plan's trainings (67.69% of teachers), and the topic in which fewer teachers were trained was health and nutrition (46.29% of teachers) (see Table 10).

Table 10. Principals and Teachers' training participation

Training topics	*Principals*	*Teachers*
	Number (%)	*Number (%)*
Kemom Ch'ab'al methodology	111 (95.69%)	224 (97.39%)
Good Practices in Health and Nutrition	83 (71.55%)	106 (46.29%)
Importance of Education	92 (79.31%)	151 (65.94%)
Funds Management/ Resources Management	53 (45.69%)	107 (49.77%)
School Improvement Plan	98 (84.48%)	155 (67.69%)

Teachers identified eleven main areas in which they wanted to be trained. Most comments were related to Reading Techniques and Strategies, K'iche', and Mathematics, among other less mentioned topics (see Table 11).

Table 11. Principals' and Teachers' training participation

Area/Topic	Number (%)
Reading techniques and strategies	41 (13.49%)
K'iche'	39 (12.83%)
Mathematics	27 (8.88%)
Administration and planning	19 (6.25%)
Learning and teaching techniques and strategies	19 (6.25%)
Kemom Ch'ab'al' methodology	18 (6.00%)
Health and Nutrition	17 (5.60%)
Use and creation of didactic material	15 (5.00%)
Educational Psychology	14 (4.60%)
Civic Education	11 (3.62%)
L1-L3	11 (3.62%)
Other (social sciences, physical education, arts and music, evaluation techniques, first aid, etc.)	73 (24.00%)
Total	304 (100%)

C. STUDENT ATTENTIVENESS (RESULT 1.2)

i. Student Attentiveness (Result 1.2).

Teachers stated that on average 85.15% (SD=15.40, range=[0, 100]) of children were more attentive due to the program implementation. In addition, 96.09% (n=221) of teachers observed specific behavioral changes due to the program implementation.

Data collection supervisors were instructed to conduct classroom observations for randomly selected teachers in schools. A series of 5-point Likert-scale items were used to assess aspects of students' attentiveness in the classroom (see Table 12). The items were ranked from 1 (strongly disagree) to 5 (strongly agree). The average attentiveness score was 52.07% (SD=18.39%), the highest score was obtained by the municipality of San Bartolo Aguas Calientes (Mean=57.88%, SD=18.11%), followed by Santa Lucía De La Reforma (Mean=55.18%, SD=18.50%). The lowest score was obtained by the Municipality of San Andrés Xecul (Mean=44.25%, SD=14.17%) (see Table 12). Reversed scored items are denoted with "(R)". Thus, higher scores indicate better attentiveness.

Most 97.49% (n=465) parents stated that receiving food at school helped their children to be more attentive. 47.80% of parents (n=228) stated they agree that school food helped increase attention, and 49.69% (n=237) of parents stated they strongly agreed with that sentence. The factors that helped increase attention that most teachers identified was school food (80.79% of teachers), and the factor that least teachers identified was teachers' attendance (58.95% of teachers). According to focus groups, parents believe that the food provided at the school has helped children to be more attentive and focused while in class (14 comments, 45% of schools), and not worried about being hungry. ["The advantage is that the children are not hungry, they always have something to eat so when they come to school, they do not feel sleepy and come to focus on learning" – "*La ventaja es que los niños no tienen hambre, siempre tienen algo que comer para que tambien cuando vengan a la escuela no se vengan a dormir, siempre vienen a dedicarse… atentos, a aprender a leer, a escribir"].*

Table 12. Observation of Children Attentiveness

Item	N	Range	Mean (SD)	% Agree or strongly agree
Children are attentive for long periods of time (about 15 minutes)	226	1-5	3.67 (0.91)	73.45%
The children seem distracted during class activities (R)	223	1-5	2.54 (1.03)	22.87%
The children follow the teacher's instructions	225	1-5	4.02 (0.72)	88.44%
The children are sleepy in the classroom (R)	225	1-5	2.09 (0.80)	7.11%
The children have difficulty concentrating (R)	226	1-5	3.82 (0.83)	78.32%
The children focus on a task until they complete it	224	1-5	3.97 (0.68)	86.16%
The children work independently (take materials, work on your own, and ask for help if necessary)	225	1-5	3.68 (0.98)	73.33%
The children listen attentively	226	1-5	3.96 (0.76)	84.52%
The children are fighting or restless in the classroom (R)	226	1-5	2.04 (0.88)	9.29%
The boys participate well in the classroom	225	1-5	4.01 (0.74)	88.89%
The girls participate well in the classroom.	226	1-5	3.95 (0.72)	85.84%
The children are reading books in Spanish.	225	1-5	3.68 (1.15)	75.11%
The children are reading books in K'iche'	224	1-5	2.91 (1.28)	43.75%
The teachers give the same opportunities for participation to boys and girls (with questions, allowing them to speak, calling them by their name, etc.)	225	1-5	4.11 (0.74)	90.22%
There working notebooks or solved exercises that demonstrate that children perform exercises to strengthen their understanding of written texts	225	1-5	4.11 (0.72)	88.44%
Overall Classroom Attentiveness (Standardized)	**213**	**0-100%**	**52.07% (18.39%)**	
Momostenango	128	0-91%	51.61% (18.74%)	
San Andres Xecul	25	9-66%	44.25% (14.17%)	
Santa Lucia La Reforma	35	3-100%	55.18% (18.50%)	
San Bartolo Aguas Calientes	25	19-91%	57.88% (18.11%)	

Additionally, according to principals, children in 94.44% of the schools (n=102) are paying more attention in the classroom during the 2016 school year. Specifically, Table 13 shows which factors helped to increase attentiveness. 43.86% of teachers (n=100) identified the provision of food as the most important factor that helped increase attention, followed by New Tools and Techniques of Kemom Ch'ab'al Methodology (14.47%), and Kemom Ch'ab'al Textbooks (14.04%). On the other hand, 58.62% (n=68) of principals identified School Food as the most important factor, followed by Kemom Ch'ab'al Textbooks (18.97%), and the use of New Tools and Techniques (12.93%).

Table 13. Factors Influencing Attentiveness (N=116)

Factors influencing Attention	Principals	Teachers
	Number (%)	Number (%)
Kemon Ch'ab'al Textbooks	104 (89.66%)	181 (79.04%)
Kemon Ch'ab'al Workbooks	103 (88.79%)	163 (71.18%)
School Food	112 (96.55%)	185 (80.79%)
New Techniques and Instruments	91 (78.45%)	151 (65.94%)
Teacher's Attendance	100 (86.21%)	135 (58.95%)
Material was appealing to students	N/A	148 (68.84%)

ii. Student Hunger and Food Intake (Result 1.2.1)

Nearly all the principals (92.59%) stated that students are less hungry because of the FFE program. Unfortunately, in the drafting of the measurement instruments for the final evaluation, the question to children of whether they were hungry during the school day was inadvertently omitted. Thus, we are not able to capture students' perspectives on hunger and can only report principals' perceptions of student hunger.

According to the principals, 71.93% (n=82) of schools serve food every day, 6.14% (n=7) serve food four times a week, 10.53% (n=12) serve it three times a week and 11.4% (n=13) served it only twice a week.

Table 14. Food Given by Grade Level[5]

Grade	Number (%)
Preschool	98 (85.22%)
First Grade	114 (99.13%)
Second Grade	114 (99.13%)
Third Grade	114 (99.13%)
Fourth Grade	114 (99.13%)
Fifth Grade	114 (99.13%)
Sixth Grade	113 (98.26%)

In 94.59% (n=105) of schools the principals said some or all of the funds that pay for the food came from MINEDUC, 96.40% (n=107) received funds from Catholic Relief Services, and 6 schools (5.41%) said they received funds from APCC for the food. Principals reported which grades are given food during the school day.

[5] The percentage represents how many schools give food to students, by grade level

Most teachers (91.40%; n=202) stated students liked the food given at school. 20 teachers made comments about why students did not like the food. 14 comments (70%) referred to the monotonous food given at school. All other comments (30%) were related to food preparation, specifically around the use of pinto beans. In addition, 68.04% (n=149) of teachers stated there were no problems with the quality of food.

Parents said that their children had breakfast at school every day. The most consumed food groups at breakfast reported by parents were tortillas (49.79%), coffee (47.07%), eggs (46.86%), beans (42.68%), tamalitos (40.38%), and atol (32.22%). The least reported groups were: Cream (0.21%), Fish (0.21%), sausage (0.84%), and Meat (0.84%). In addition, 8 parents (1.67%) stated their children did not have breakfast at home.

Table 15. Food children ate for breakfast[6]

Food Group	Number (%)
Nothing (no-breakfast)	8 (1.67%)
Beans	204 (42.68%)
Eggs	224 (46.86%)
Tortillas	238 (49.79%)
Tamalitos	193 (40.38%)
Bread	74 (15.48%)
Atol	154 (32.22%)
Cream	1 (0.21%)
Cheese	26 (5.44%)
Chile or Chirmol	56 (11.72%)
Coffee	225 (47.07%)
Milk	35 (7.32%)
Meat	4 (0.84%)
Chicken	8 (1.67%)
Herbs	59 (12.34%)
Fruits & Vegetables	59 (12.34%)
Rice & Pasta	85 (17.78%)
Cereals	37 (7.74%)
Sausage	4 (0.84%)
Fish	1 (0.21%)

In principals' opinions, on average 34.73% of first graders, 34.59% of second graders, 33.94% of third graders, 33.32% of fourth graders, 32.68% of fifth graders, and 31.91% of sixth graders attending school had no breakfast.

Table 16. Percentage of Children Attending School that had no Breakfast

Grade	Mean (SD)
Preschool	34.73 (35.70)
First Grade	34.59 (35.82)
Second Grade	33.94 (35.93)
Third Grade	33.32 (36.11)
Fourth Grade	32.68 (36.03)
Fifth Grade	31.91 (36.07)
Sixth Grade	34.73 (35.70)

D. STUDENT ATTENDANCE (RESULT 1.3)

52.61% (n=121) of teachers stated they have attendance records for male students, while 50.87% (n=117) stated they have attendance records for female students. The record showed that the average percentage of male students' attendance for third grade was 56.46% (SD=44.09%, range=[0,100]), and for

[6] The percentage represent number of parents who stated their children ate that food group at breakfast.

sixth grade was 50.59% (SD=46.87%, range=[0,100]). For female students, the average attendance was 84.72% (SD=24.61%, range=[0,100]) for third grade, and 85.04% (SD=26.46%, range=[0,100]) for sixth grade. Those teachers who did not have records estimated that on average male students attended 81.79% (SD=26.45, range=[0,100]) of the school days, and female students attended on average 87.54% (SD=17.12%, range=[0,100]) of school days.

73.50% (n=147) of teachers stated that students' attendance increased with program implementation. 91.41% (n=149) of teachers stated that the School Food helped increase attendance, followed by the use of New Teaching Techniques, which was positively identified by 75.46% of teachers (n=123). In addition, 79.04% of teachers (n=181) stated the program helped increase student attendance. 91.38% (n=106) of principals feel the program helped increase student attendance.

Table 17: Factors that Helped Increase Student Attendance

Factors influencing Attendance	Principals	Teachers
	Number (%)	Number (%)
The used of new teaching techniques	123 (75.46%)	83 (71.55%)
Food provision	149 (91.41%)	110 (94.83%)
Kemon Ch'ab'al Textbooks	137 (87.05%)	101 (87.07%)
Enrollment campaigns	79 (53.02%)	N/A
Kemon Ch'ab'al Workbooks	N/A	98 (84.48%)
Teacher Attendance	N/A	89 (76.72%)
The used of new teaching techniques	123 (75.46%)	83 (71.55%)

Findings from focus groups show that parents believe children's attendance improved (48 comments, 65% of schools). They state that this improvement was due to parents' support encouraging children to attend school (42 comments, 55% of schools) ["Parents have to go to school and ask how their children are doing, for example, in grades, performance, so that children know they have their parent's support, and send them every day to school"- *"Papá y mamá tiene que venir a preguntar cómo está su hijo, cómo va de...sus calificaciones,...qué rendimiento, para que los niños se dan cuenta que tienen el apoyo de papá y mamá, y mandarlos todos los días"*], and being motivated by the food provided at the school (6 comments, 20% of schools) ["Children know that if they do not eat at home, they will eat at school" - *"Ya los niños saben que si no comen en la casa ya aquí (en la escuela) hay comida para ellos"].*

Additionally, parents stated that the benefits of children attending school were learning in general (14 comments, 45% of schools) ["(Mothers say) get up, so you can go to school and learn, to write, to add" - *"(Las madres dicen) levántate mamita, para que te vas a ir a la escuela, para que aprendés, vas a escribir, vas a hacer suma"*], and eating in the school (22 comments, 60% of schools) stating that "children happily attend because they know they will eat there" [("...*vienen felices (a la escuela)..., ellos van a comer)].* Parents recognize that both the Kemom Ch'ab'al books and food provided at school has helped children to be motivated to attend ["Now children have their books, food, and I believe that is providing a good way of life to our children" – *"Les ha venido libro …Kemon Ch'ab'al, en cambio antes no había, …, viene alimentación y creo que es una buena vida que les han dado a los niños"*].

17.16% of parents (n=82) listed three reasons why children did not attend school, while 36.40% (n=174) listed two reasons, and 40.37% (n=193) mentioned only one reason. There were a total of 791 codes, the most common reason is sickness/illness (49.05% of comments), followed by lack of interest from children (13.78% of comments), and lack of support from parents (10.37% of comments). On the other hand,

32.88% (n=73) of teachers listed three reasons why children did not attend school, 39.64% (n=88) listed two reasons, and 27.48% (n=61) mentioned only one reason. There were a total of 484 codes, the most common reason is sickness/illness (26.24% of comments), followed by children working (20.04% of comments), and lack of support from parents (16.32% of comments). Finally, 38.39% of principals (n=43) listed three reasons why children did not attend school, while 38.39% (n=43) listed two reasons, 23.22% (n=26) mentioned one reason. There were a total of 484 codes, the most common reason was sickness/illness (24.37% of comments), followed by children working (18.49% of comments), and lack of support from parents (12.18% of comments). See Table 18 below for a complete list.

Table 18. Reasons of Why Students Missed Classes

Reasons	Parents	Teachers	Principals
	Number (%)	Number (%)	Number (%)
Sickness/Illness	338 (49.05%)	127 (26.24%)	58 (24.37%)
Lack of Interest from children	109 (13.78%)	38 (7.85%)	13 (5.46%)
Lack of Support from Parents	82 (10.37%)	79 (16.32%)	29 (12.18%)
Children Working	54 (6.83%)	97 (20.04%)	44 (18.49%)
Other Activities	44 (5.56%)	41 (8.47%)	24 (10.08%)
Family issues	31 (3.92%)	32 (6.61%)	21 (8.82%)
Weather and school distance	23 (2.91%)	9 (1.86%)	5 (2.10%)
Lack of resources (poverty)	27 (3.41%)	34 (7.02%)	21 (8.82%)
Class suspension and teachers related issues (maltreatment, delay, etc)	14 (1.77%)	6 (1.24%)	3 (1.26%)
School environment	8 (1.01%)	2 (0.41%)	0 (0.00%)
Other reasons	11 (1.39%)	19 (3.93%)	20 (8.40%)
Total	791 (100%)	484 (100%)	238 (100%)

In focus groups, reasons provided by parents for children not attending school were diseases in general (23 comments, 70% of schools); children helping parent's in the field or other work tasks (13 comments, 40% of schools) ["We (parents) send children to work,...carry wood, harvest crops"-*"Los mandamos los niños al trabajo, va a..., cargar leña, cortar y cultivar tierra"*]*;* children are not willing to attend (12 comments, 35% of schools) ["Children sometimes do not want to come (to school)"- "*Lo que pasa a veces con los niños es que a veces les agarra pereza, y...no quieren venir"*]; parents' lack of responsibility (6 comments, 30% of schools) ["Sometimes we (parents) are irresponsible and wake up late and tell our kids not to go to school" - *"porque a veces como padres de familia tenemos una irresponsabilidad con nuestros hijos porque a veces nosotros no nos levantamos a temprana hora..., nos agarra la tarde y después les decimos a nuestros hijos que no se van (a la escuela)"*]; family activities (3 comments, 10% of schools); rain or weather conditions (3 comments, 15% of schools); and school remoteness/distance (2, 10% of schools) ["It rains a lot and that is why children miss school because they get wet and they are afraid, they live far away from the school" - *"Llueve mucho por eso es que hacen falta los niños que vienen porque se mojan y tienen miedo pues, vienen unos lejos"*]. From the information gathered, it seems that one of the concerns raised by parent committees is children not attending school. Some parents commented that they have opened a channel of communication with teachers to learn which

children are not attending. Once they have the information, they might inquire with other parents the reason for non-attendance. This is interesting because the committee is working on behalf of the communities' development expressing that the path to development is through school education.

iii. Food Preparation

Overall, 87.77% (n=409) of parents stated they took turns to prepare the food that was given to the kids at school. Disaggregating by gender, 80.61% (n=79) of fathers, and 89.67% of mothers, stated that parents took turns to prepare the food. Overall, 75.75% (n=353) of interviewed parents participated as volunteers in the kitchen. However, only 50% of fathers stated they were volunteer, while 82.61% of mothers stated they were volunteers. Overall, parents volunteer 15.29 (SD=29.79) days. Fathers volunteer on average 12.94 (SD=26.28) days, while mothers volunteer 15.62 (SD=30.34) days. 42.68% (n=204) of parents strongly agreed that food preparation was well organized, and 52.51% (n=251) of parents stated they agreed that food preparation was well organized.

Table 19. People who participated in Food Preparation according to principals (n=113)

Who prepared the food	Number (%)
School Board	26 (23.01%)
Mothers	103 (91.15%)
Fathers	13 (11.50%)
Hired Cook	20 (17.70%)
Other	3 (2.65%)

Principals reported that multiple people helped to prepare the food. 91.15% (n=103) of principals stated that the students' mothers prepared the food, followed by School Board member (23.01%)

According to the focus groups participants, parents received training in food preparation (24 comments, 65% of schools). They mentioned that their role as the parents' committee was to receive, store, and supervise food preparation for children in the school (35 comments, 75% of schools) ["We are here at the school supervising food, we work in shifts, starting monday through friday" - *"Nosotros estamos aquí en la escuela, velando por la refacción, estar al día, estamos por turnos, unos empiezan de lunes, martes, miércoles, jueves, viernes.."*].

Table 20. Problems with Food Preparation

Problems	N	Number (%)
Food Preparation	114	34 (29.82%)
Food Organization	34	12 (35.29%)
Types of Food	34	26 (74.29%)
Food Storage	34	4 (11.76%)
Freshness	34	8 (23.53%)
Cleanliness of the Kitchen	34	2 (5.88%)
Hygiene	34	5 (14.71%)

29.82% of principals (n=34) said there were problems with the food preparation, such as preparation, organization, type of food, storage, freshness, cleanliness in the kitchen and hygiene (see Table 20).

Findings from parent focus groups also showed that there were problems with food preparation (130 comments, 80% of schools). Of these, the most relevant problem is with beans (73 comments, 75% of schools), either being hard to cook (51 comments, 70% of schools), unfamiliar type of beans (14

comments, 25% of schools), uncooked beans causing stomach problems (5 comments, 10% of schools), or extra expense due to the amount of wood needed to cook the beans (3 comments, 10% of schools). ["The problem we have most is with beans because they do not cook, it takes a lot of wood and instead of helping children, they have stomach discomfort because they do not cook" - *"El problema que tenemos más es con el frijol porque no se coce y lleva mucha leña, tarda para cocer y, en vez de ayudar a los niños, nos empachamos con el frijol porque no se coce";* "Children do not want to eat brown (pintos) beans, they are more familiar with white, black, or red beans" - *"...es que son frijoles pintos entonces (los niños) no quieren eso, lo que más conocen los niños son frijoles blancos, negros, colorado…"*].

Other problems related with food preparation were monotonous foods (6 comments, 10% of schools) stating that it would be good to have a variety of products such as other kinds of legumes so that children do not get bored from the same food; lack of potable water (3 comments, 15% of schools); lack of appropriate cookware (2 comments, 10% of schools); and lack of seeds to grow food at the school garden (1 comment). Another problem identified with food aid and preparation, was food delivery being late. Findings show 4 comments (all from one school) in which parents report to have had late food deliveries ["...the institution has been late, not only school supplies but also food arrives very late" - *"…la institución ha tardado mucho. No solo los útiles, la refacción…, se tarda demasiado; lo que a mi me gustaba bastante de Conrado es que eran muy puntuales"*].

iv. Student Participation in Extra-Curricular Activities (Result 1.3.1)

CRS monitoring data showed that 3,594 children participated in extra-curricular school activities, meeting the final target of 3,505 children. Yet, when asked, most parents (87.66%; n=419) did not know about after school activities, and 12.34% (n=59) were aware of the activities offered. 75.93% (n=41) of parents mentioned there was school reinforcement. 44.07% (n=26) of parents stated there were other activities, such as cultural activities, sports, and others. About 26% of schools had a "Space to Grow" program in place. Thus, about 61% of parents who stated they did not know about extracurricular activities, did so due to lack of awareness.

Table 21. Students' Participation in Extracurricular Activities

Activities after school hours			
Clusters	**Number (%)**	**Codes**	**Number (%)**
Celebrations	42.30% (11)	Cultural activities	26.92% (7)
		family celebrations	15.38% (4)
Recreation	26.93% (7)	Sports	19.23% (5)
		Music	3.85% (1)
		Games/Playing	3.85% (1)
Reinforcement	23.08% (6)	Reading	15.38% (4)
		Homework	3.85% (1)
		team work	3.85% (1)
Food meetings	7.69% (2)	Food meetings	7.69% (2)
Total			**100% (26)**

Many parents (71.13%; n=340) stated they would like their children to participate in after school activities to help them with their studies. 28.87% (n=138) of parents were not interested in activities after school. Their reasons were coded in 140 codes. The lack of interest is mainly due to weather conditions and

school distance (16.43% of the comments), security issues (4.48% of the comments), because children have to work or help at home (29.29% of the comments), or because they do not have time to spend more hours at school (22.86% of the comments).

Almost half of the principals (43.97%, n=51) were aware of what the Spaces to Grow program entailed. One quarter (25.66%, n=29) had a Spaces to Grow program in place. The project was designed with a goal of 40 schools (1/3) implementing a Spaces to Grow Program. 89.66% of these programs included homework reinforcement, 82.76% included recreation, and 82.76% included personal growth and values. While the implementation rate is low thus far, 91.51% (n=97) of the principals said there is an interest in having the Spaces to Grow program at their school.

v. Number of School Government Established (Result 1.3.1a)

96.02% of teachers (n=217) indicated that the school has a school government. Those 217 teachers worked in 115 schools, meaning that, 95.83% of 120 sampled schools have a school government established. Therefore, it was estimated that 212 (95.83%) schools have established a school government out of the population of 221 schools. This estimate suggests that all schools actively participating in all aspects of FFE implementation have a school government established.

According to the principals, the numbers were only slightly higher showing that 98.28% of schools (n=114) had a school government. 98.25% of principals and 95.31% of teachers (n=203) said that school governments work on committees. All but one principal reported that the school government is co-ed (99.12%, n=113), and 99.07% of teachers (n=213) agreed that the school government is composed of both boys and girls.

More specifically, principals reported that 51.35% of Presidents are female, 42.34% of Vice Presidents are female, 67.57% of Secretaries are female, 63.96% of Treasurers are female, and 66.67% of Vocals (members who can vote in the absence of other elected members) are female. Similarly, 46.57% (n=95) of teachers stated that girls were President, 49.51% (n=101) of teachers stated girls were Vice Presidents, 70.59% (n=144) of teachers stated girls were Secretary, 54.41% (n=111) of teachers indicated girls were Treasurer, and 66.18% (n=135) of teachers indicated girls were Vocals. Overall, 74.55% (n=82) principals feel that the school government was stronger in 2015-2016 as compared with 2014-2015 school year. 96.55% (n=112) of the principals believe that the teachers are interested in a school government that is formed in participation with the children.

vi. School Gardens

54.15% of teachers (n=124) and 53.59% of principals (n=61) stated there is a garden at their school. 70.40% of teachers (n=88) stated that the garden helped to increase student's attendance, 72.00% (n=90) of teachers stated the garden helped increase students' attention, and 71.20% (n=89) of teachers stated the garden helped increase the quality of teaching. 75.41% (n=46) of principals feel the garden has contributed to school attendance, 77.05% (n=47) feel it has contributed to attentiveness, and 91.80% feel it has contributed to quality of teacher's instruction. 28.60% (n=129) of parents volunteer in the school garden, on average 8.41 days (SD=28.69). Overall, in the parent's focus groups, school gardening was not mentioned except in 3 schools. Comments were made around the school garden being an improvement to the school (7 comments, 15% of schools) stating that it yields food to be given to children ["The school

garden has improved as well..., the institution gave us basic seeds, onion, lettuce which is already planted and growing. When ready, we will harvest and prepare for children" -*"El huerto ha mejorado también..., la institución nos dio semillas de lo básico, cebolla, lechuga y eso ya está sembrado en el huerto ahorita, ya está creciendo. Cuando ya está, ya se va a cosechar se lo vamos a dar a los niños"*]*; and receiving training*in school gardening (5 comments, 15% of schools) ["(we) have received training in school gardening, trainers tell us that we can use diverse materials to plant" - *"(los padres) hemos recibido capacitaciones sobre el huerto…,(los instructores) advierten a uno si quiere hacer un su huerto no es necesario que tenga un terreno, sino que se puede hacer en llantas o en esos desechables, es eso lo que nos han venido a decir"]*.

vii. School Days Missed by Students Due to Illness (Result 1.3.2)

According to the principals, on average, 3rd graders missed 0.55 days (SD= 1.28), and 6th graders missed an average of 0.54 days (SD=1.27) during the 2016 school year. Overall, the average number of days missed for students in first through sixth grade was 0.57 days (SD=1.31), better than the final target of 2 days missed because of illness.

Most parents (70.38%; n=221) said the number of children that missed school due to illness did not increase. The most common diseases reported by parents were respiratory issues and colds (43.98% of the reported illness/diseases), followed by fever or headache (28.80% of the reported illness/diseases), and stomach/intestinal infections (18.33% of the reported diseases). The table below shows the specifics mentioned by parents.

Table 22. Kinds of Illness that caused Students to Miss Classes

Clusters	Number (%)	Codes	Number (%)
Eruptive Diseases	9 (4.71%)	Measles	3 (1.57%)
		Chickenpot	6 (3.14%)
Respiratory and cold diseases	84 (43.98%)	Tonsillitis	2 (1.05%)
		Bronchitis	1 (0.52%)
		Respiratory diseases	8 (4.19%)
		Flu	33 (17.28%)
		Cough	40 (20.94%)
Fever and headache	55 (28.80%)	Headache	14 (7.33%)
		Fever	41 (21.47%)
Stomach/Intestinal Infections	35 (18.33%)	Diarrhea	14 (7.33%)
		Intestinal diseases	5 (2.62%)
		Stomach ache	15 (7.85%)
		Parasites	1 (0.52%)
Other (not specified)	5 (2.62%)	Not specified	3 (1.57%)
		Other	2 (1.05%)
Nose Bleeding	3 (1.57%)	Nose Bleeding	3 (1.57%)
Total			100% (191)

viii. Improvements or construction of the school (Result 1.3.3).

According to CRS monitoring data, 416 facilities were built during Phase I of FFE. This number exceeds the final target of 312 educational facilities rehabilitated or constructed as a result of USDA assistance. Improvements included kitchens built or rehabilitated (n=159 schools), latrines built or rehabilitated (n=100), and wells and water systems built or rehabilitated (n=157).

Over half (57.24%; n=261) of interviewed parents participated as volunteers in the improvement or construction for an average of 7.44 days (SD= 18.60) at the school. Schools had between 1 and 22 classrooms, with the mean number of classrooms per school being 6.12 (SD 4.26).

According to parent's focus groups, school improvement was categorized into two themes: improvements in infrastructure (60 comments, 75% of schools) and other non-infrastructure enhancements (111 comments, 90% of schools). The most frequent infrastructure topic mentioned was improved school kitchens (35 comments, 60% of schools), followed by improved bathrooms (16 comments, 25% of schools), obtaining water deposits (6 comments, 20% of schools), improved food storage (2 comments, 10% of schools), and obtaining a sports field (1 comment). The kitchen enhancements mainly referred to having new stoves which are used to prepare food in the school ["We had a very small stove, now we have a bigger one which makes it easier to cook" - *"...teníamos la estufa, o sea la plancha muy pequeña, ahora ya tenemos una estufa grande, más facilidades para cocinar"*]. As per bathrooms, comments revolve around increasing the number of bathrooms they had ["We have more bathrooms which is very useful" - *"…. se amplió más los baños, eso es de mucha utilidad"*]. However, there were some issues with school infrastructure: lack of a room solely dedicated to food storage (13 comments, 15% of schools), kitchen or food storage being small or inadequate (22 comments, 50% of schools), lack of sewage (3 comments, 10% of schools), and lack of water deposit (1 comment).

The theme of non-infrastructure school improvements mainly referred to overall cleanliness. Personal hygiene (38 comments, 70% of schools), and keeping food storage (29 comments, 75% of schools), kitchen (25 comments, 45% of schools) and bathrooms (7 comments, 25% of schools) clean. Parents mostly mentioned improved personal hygiene in children attending school and in mothers who prepare food ["...the benefit is that we do things clean, ...clean and prepare food, well cooked, and as my peer says, prepare our children so that they come to school clean, change their clothes, give them a bath, comb their hair" - *"…nos ha beneficiado de que hacemos las cosas así aseados,…la limpieza y preparados bien los alimentos, bien cocidos y como dice la compañera bien preparar a nuestros hijos, que vengan a estudiar limpios, cambiarles la ropa, bañarlos, peinarlos…"*]. Parents also mentioned improvements in the cookware they received to prepare food (5 comments, 20% of schools) being an adequate size ["...(we) are better because now we have big cookware to prepare food" - *"… (estamos) mejor porque ahora ya contamos con materiales ya grandes para poder cocer la refacción"*].

ix. School Enrollment (Result 1.3.4)

According to CRS monitoring data, school enrollment for both boys and girls has dropped significantly since baseline and midterm (see Appendix A). In 2014, 18,437 boys were enrolled. This figure dropped to 18,245 in 2015 (-1.0%) and dropped again to 16,790 in 2016 (-8.9% decrease compared to midterm). For girls, 17,765 were enrolled in 2014, dropping to 17,307 in 2015 (-2.6% decrease) and to 16,394 in 2016 (-7.7% decrease compared to baseline). In addition, about half of principals surveyed (n=62, 56.36%) do not feel that the program has helped to improve student enrollment.

Conversations with at least one CTA, and with USDA representatives, confirmed that declining school enrollment is a widespread problem in Guatemala more generally. Given limited economic opportunities, many children are opting to leave school and migrate to urban areas, or north to Mexico and the U.S., in search of employment.

x. Importance of Education (Result 1.3.5)

99.79% of parents (n=472) think education is important for their children, and n=464 parents provided an explanation of why education is important (see Table 23). 16.81% of parents (n=78) provided three or more explanations, while 35.78% of parents (n=166) provided two explanations, and 47.41% of parents (n=220) provided just one explanation. Parents' comments were coded into 806 codes, and 6 clusters of codes. The main benefit identified for parents was Learning (44.67% of comments), followed by Having a Better Future (39.08% of comments), and Personal Development (12.66% of comments).

Table 23. Parents' Responses to Why Education is Important

Clusters	Number (%)
Learning (to learn how to write, read, count, among others)	360 (44.67%)
Having a better future (getting better jobs, better opportunities, among others)	315 (39.08%)
Personal Development (Development of the child, socialization, children can perform what they are asked)	102 (12.66%)
Family and community development (fighting poverty, becoming active members of the community, among others)	26 (3.23%)
Decrease hunger	2 (0.25%)
Children are given materials to study	1 (0.12%)
Total	**100% (806)**

Most of the sampled schools (97.41%, n=113) have PTAs. Therefore, it's estimated that 215 schools participating in the project have PTAs. 90.27% of principals indicated that the school board/council works on commission. 97.35% of principals said the school board was trained in 2016.

As expressed in focus groups, education is very important for parents. They think that through education and literacy, their children may overcome problems (14 comments, 45% of schools) ["…education is important so that suffering no longer prevails. Through educations there is change, here we now know how to read and write, that is going to be helpful in life"- "*la educación es importante para no seguir sufriendo como nuestros abuelos o antepasados. Siempre hay un cambio, aquí ya sabemos leer y escribir, por algo más les va a servir en la vida"]*.

E. GENERAL OVERVIEW OF RESULTS (RESULT 1.4)

According to parents´ focus groups, benefits of the program include having a better community economy (18 comments, 65% of schools) due to savings in food (17 comments, 60% of schools) and wood (1 comment). ["...we (the committee and a teacher) are conducting a simple analysis of how much we receive from CRS and it is a very interesting amount, helping our community a lot…not only supporting family economy but also community development..." -*"…(el consejo de padres junto con un maestro) estamos haciendo un pequeño análisis así, de cuánto recibe la comunidad del apoyo de CRS, y pues es un dinero muy interesante…, ayuda mucho a nuestra comunidad…No sólo apoya la economía familiar, también el desarrollo de nuestra comunidad..."*].

i. Perception and Sustainability of the Program (Result 1.4)

Regarding to the overall project, five CTAs (55.55%) feel it is very sustainable and the other 44.44% feel it is somewhat sustainable. 37.16% of teachers (n=84) think the program is sustainable or very sustainable, 27.88% of teachers (n=63) think the program is somewhat sustainable, and 34.96% (n=79) of teachers stated the program is not sustainable without CRS/USDA help. Only 4.39% (n=5) of the principals feel that the FFE program is very sustainable without USDA funding. Just less than 1/3 (28.07%) of principals feel that the program is sustainable, 28.95% feel it is somewhat sustainable, but the majority (38.60%) feel it is not sustainable.

When asked about sustainability plans, none of the parents in focus groups (20 schools) mentioned to have one in place. Consequently, program sustainability arose as a problem (45 comments, 80% of schools). Parents stated that they needed more support for their communities' development. During the conversation, parents stated that they would not be able, or have not figured out yet how to provide the foods that the program delivers ["We (parents) earn little for work, very little. Imagine if we have to buy rice for example, we pay around three hundred (Quetzales)[7] for 100 pounds of rice, we will not to be able to do so" - "*...nosotros ganamos poco por el trabajo, muy poco. Imagínese, compramos un quintal de arroz por ejemplo, esté entre trescientos y algo (Quetzales), es cuestión que no vamos a poder comprar…*; "Without their help (CRS) we cannot do anything and the children will not have food, no tortillas, no beans, no rice, no atol" - "*Sin la ayuda de ellos (CRS) no podemos hacer nada y los niños se quedan sin comida y sin comer, sin tortillas, sin frijol, sin arroz, sin atol"*]. Additionally, parents mentioned (3 comments in 3 different schools) that in case CRS no longer supported their communities with food aid, government support (at least what they claim to receive at the time of the focus group) would not be enough. They describe government support as scant and sometimes being delivered late. Therefore, compared to the aid they receive from CRS, they consider government support as insufficient to feed their children at schools on a daily basis. Thirty comments, in 65% of the schools, were found stating that communities need more help, either from government or other institutions such as CRS, in order to thrive ["We need more things in the school, like I said, we need more help, for example to improve the food storage and the kitchen" - *"…necesitamos más cosas aquí en la escuela,… como le vuelvo a repetir, nosotros necesitamos más ayuda… como en la bodega y más mejoramiento de nuestra cocina"*].

However, although none of the parents at the focus groups mentioned that they had a plan for sustainability, they were able to mention important achievements due to team work in their communities. Community achievements and team work accounted for 68 comments in 95% of schools

[7] Quetzal or GTQ (Guatemala Quetzal) is the national currency in Guatemala. In August 2017, 300 GTQ were equivalent to approximately 41 US dollars (USD).

["If there is work to be done, all the rural community works on it. We are united, whatever the project, we do it together, we prevail" – "*Si hay algún trabajo, lo hace toda la comunidad rural. Estamos unidos, cualquier proyecto o cosa que hacemos, lo hacemos juntos, tenemos logro"]*. It may be that through this achievement empowerment and team work, they may figure out and build sustainability plans.

Only 31.90% (n=37) of the principals have thought about a sustainability plan for the future. More than half (52.83%, n=56) of the principal's felt that there is another modality for reducing hunger in schools which could be more efficient and more cost-effective.

However, the majority of the follow-up responses to this question spoke to enhancements of the FFE program rather than alternative programs. From the 116 principals interviewed there were 24 codes grouped into the four themes of Sustainability (43 comments), food (34 comments), other programming options (6 comments) and funding (2 comments). For example, under the sustainability code, 19 principals mentioned the role of school gardens and specifically 6 said their school needed to create a school garden, and 3 said the gardens needed improvements. Another 7 principals mentioned that creating gardens at home would be an effective manner to reducing hunger outside of school time. Six principals mentioned that an increased effort was needed to buy local as it could support local businesses and economy as well as provide foods with which the children are familiar. Three principals mentioned each of the following: using existing community resources and increased parent involvement.

In regards to the food served, 7 principals emphasized the need for nutritious and healthy food, 6 mentioned changing the menu at school, 3 mentioned creating a rotating menu with a variety of food options and 2 mentioned adding school breakfast as an option. Many principals mentioned specific foods that should be included such as fruits and vegetables (8), vitamins (3), different beans (3), milk (1), protein (1) and eliminating sweets (1). In regards to alternative programming from the FFE program, only a few principals were mentioned such as financial literacy training (1), Programs run by the Ministry of Health (1), the Healthy Schools program (1), Parent education on local resources (2) and Parent education on healthy cooking (1). In order to make everything successful one principal mentioned that more funds were needed and another suggested asking the municipality for help.

77% of CTAs (n=7) said they had seen an increase in the capacities of the government institution during the application of the project. 100% of CTAs (n=9) reported that the have observed improvements regarding the policy and regulatory frameworks. Additionally, the parent volunteer focus groups mentioned that they do not have a sustainability plan ["If the program is discontinued, we would only have the government aid which is not enough, I repeat, we do not have a plan in case aid (from CRS) stops coming"- *"…si algún día dejara de existir (la ayuda de CRS), quedaríamos sólo con la ayuda que manda el gobierno… y es poco no alcanza.., le repito verdad, no hemos tenido algún plan o algo por si dejara de venir esa ayuda"]*.

Regarding sustainability, staff mentioned that they believe the program may be sustainable through collaborative work (9 comments) with diverse public and private institutions, and community members. There are two communalities across all staff sustainability solution path. The first one involves community participation. As mentioned by all staff interviewees, infrastructure and community members will remain. It is through trained human resources who are part of the communities that sustainability may be achieved. Community members need to be aware and empowered to be able to foresee that through them, the community may keep developing strategies to support their communities. The second solution strategy that all staff mentioned has to do with community members management abilities. These are expressed as community members being able to assess their own needs, know who to contact (i.e.,

individuals, local government institutions, non-government organizations), ask for what is needed, follow up, manage the resources, and report on results making this process iterative and collaborative. Several strategies are mentioned as to how to achieve sustainability: MINEDUC increasing food aid for children at schools (4 comments); community participation and involvement (9 comments); MINEDUC reinforcing bilingual education (4 comments); MINEDUC modifying policies to be able to buy local produce or other goods that may benefit local economy (2 comment); continue to train communities in self-advocacy and management capabilities (5 comments); in the trainings, incorporate actual community examples of achievements attained through their own collaborative work that may help portray possible paths to sustainability though helping develop short and long term plans (8 comments); continue to reinforce school gardens (8 comments); involve private institutions that may be interested in investing in schools (1 comment); . What may not be sustainable, as stated by staff members, is the non-food aid that CRS provides such as shoes or other goods (2 comments).

Interviews with USDA staff provided helpful feedback on perspectives around program sustainability. The pursuit of sustainability should occur at multiple levels, from advocacy at the policy level, government budgets to support improved policy, and strengthened collaborations with local organizations and communities to improve capacity for implementation. USDA representatives indicated that CRS has been active at each of these levels, and there is evidence to suggest that the Government of Guatemala may pass a bill that requires school feeding for all children in the country.

Both USDA representatives mentioned the previous relationship between CRS and APCC, and the problems introduced when it was discovered that APCC had problems with transparency, accountability, and in meeting the challenges of FFE implementation. A local USDA representative stated that CRS might operate more effectively in the future by not subcontracting to a local partner, but rather by becoming an implementing agency instead of a contracting agency. In this case, CRS would be directly involved in implementing the program and coordinating with communities and schools, rather than working through the intermediary of a partner institution.

ii. Increased Capacity of Government Institutions (Result 1.4.1)

Of the CTA's interviewed, 88.88% (n=8) participated in the DIDEDUC trainings. The table below details the number of people who attended each training.

Table 24. DIDEDUC Training Topics Attended by CTAs (n=8 CTAs)

Training	Number (%)
Your Roles and Responsibilities (1.1.3)	4 (50%)
The Use of the Reading Materials (1.1.3)	7 (88%)
School Supervision (1.1.5)	5 (63%)
The Use of Tools to Test Reading (1.1.5)	7 (88%)
Application of the Kemom Ch'ab'al Methodology (1.1.5)	8 (100%)
Supervising the Application of the Kemom Ch'ab'al Methodology (1.1.5)	7 (88%)
Data Logging (1.1.3)	3 (38%)
Data Analysis (reports) (1.1.3)	6 (75%)

Only 8 of the 9 CTA's responded about which courses they had taken. All 8 took the Application of the Kemom Ch'ab'al Methodology Training. 88% of the CTA's (n=7) took The Use of Reading Materials; The Use of Tools to Test Reading; and Supervision of the Application of the Kemom Ch'ab'al Methodology. The training on Roles and Responsibilities and Data Logging were not well attended with half or less of the CTAs. Other trainings mentioned by CTAs included: program plans for the school; leadership; and Intercultural Bilingual Education (Educación Bilingüe Intercultural; EBI).

Of the CTA's interviewed, 44.44% (n=4) participated in the DIGEFOCE staff trainings, and 3 chose not to respond. Training topics included Your Roles and Responsibilities; Identification of School Needs; Coordination with Educational Council; Home Gardens; and Home Gardens. 100% of CTA's attended Identification of School Needs and Exchange of Knowledge and Practices. Almost all, 75% attended Your Roles and Responsibilities, Coordination with Educational Council and Exchange of Knowledge and Practices.

Table 25. DIGEFOCE Training Topics Attended by CTAs

Training	Number (%)
Your Role and Responsibilities	3 (75%)
Identification of School Needs	4 (100%)
Coordination with Educational Council	3 (75%)
School Gardens	4 (100%)
Exchange of Knowledge and Practices	3 (75%)

The Educational Council/School Board were trained on topics such as Kemom Ch'ab'al Methodology; Good Health and Nutrition; The Importance of Education; Funds Management; School Improvement Plan. Overall, very few (19%) of the school boards were trained in the Kemom Ch'ab'al Methodology. Over 80% of School Boards were trained in Good Health and Nutrition.

Table 26. Trainings of School Boards/Council (n=110)

Training	Number (%)
Kemom Ch'ab'al Methodology	21 (19.09%)
Good Health and Nutrition	91 (82.73%)
Importance of Education	73 (66.36%)
Funds Management/ Resources Management	87 (79.09%)
School Improvement Plan	78 (70.91%)

iii. Increased Government Support (Result 1.4.3)

CTAs reported that on average, only 41% of the disbursements made by the Ministry of Education came promptly to the school in 2016 (Range = [0,100%], SD=39.03). The principals reported that half (50.43%, n=58) of the schools received funds from the MINEDUC arrived to the school on time. However, the principals noted that only 42.98% of the time (n=49) the amount of the funds allocated were sufficient to meet the needs of the children.

According to parent volunteer focus groups, 3 comments were made (all from one school) on MINEDUC disbursements being late. Parents stated that it affects their personal financial situation when they have to buy school supplies upfront before actually receiving the aid. [*"…a veces los desembolsos se han tardado demasiado y comenzamos a comprar útiles escolares para nuestros niños verdad, para que ellos estudien"*].

iv. Increased Engagement of Local and Community Members (Result 1.4.4)

42.68% (n=204) of parents strongly agreed, and 46.86% of parents agreed that the food is prepared by community members. During the focus groups, 56 comments in 90% of the schools, support the engagement of diverse community members working together to achieve goals ["...here we work together, when something is needed, we tell the community "we need this" and they provide their support, that is how we achieved school enhancements" - *"...aquí se trabaja en conjunto, cuando hay un trabajo pues, se le dice a la comunidad "nos hace falta esto" y sí apoyan por esta manera pues, que si, la escuelita aquí si tiene su cambio (mejora)";* "We are organized, we all come to clean the school, teachers, the committee, parents also" - *"Nos organizamos también, venimos a lavar la escuela, todos, los maestros, el consejo y padres de familia también, así nos organizamos"*].

The focus group participants mentioned collaborative work with diverse members of the community and believe collaborations are an important achievement that helps support the community's development (103 comments, 100% of schools). ["There are children that get hungry rapidly and this (food) helps them, so this not only supports family economy, it also supports the development of our community, which has benefited from this program" - *"…hay niños que agarran hambre rápido y esto (la refacción) los apoya a ellos, entonces no solo apoya la economía familiar, también el desarrollo de nuestra comunidad, porque este programa ha levantado mucho a la comunidad"*].

According to project staff interviews, diverse activities were executed during phase I of FFE which were aimed to ultimately support education in the target communities. Mentioned activities ranged from staff organization and implementation activities to get the program started (3 comments) to providing food for schools to enhance children's nutrition (9 comments), help develop reading and writing capabilities in children in a bilingual context (Spanish and K'iche') (1 comment), and help develop community management capacity (4 comments).

One of the main lessons learned at this project stage were that in order to achieve positive results, teamwork is crucial (4 comments), not only collaborating with community members, but including key partners such as MINEDUC or PRODESSA. This learning has led staff members to continue planning and executing interinstitutional meetings on a regular basis to discuss project-related successes and issues. Another lesson learned was that when communities actually receive the tangible goods such as food or cookware, they feel motivated and start working as teams (3 comments). It was also mentioned as a learning (4 comments) that bilingual instruction in schools has to be reinforced and that teachers should be better trained and supervised in the use of Kemom Ch'ab'al books (3 comments).

The main challenge was to motivate and organize parents and community members to participate in the program (9 comments) and its related activities (e.g., food preparation, trainings, bilingual instruction). Other challenges mentioned were to avoid duplicity with other institutions trying to be clear on FFE objectives (1 comment) so that programs do not overlap.

Positive practices mentioned were that staff perceives that communities achieved to build management capabilities in order to advocate for their needs with local authorities (4 comments). Interinstitutional regular meetings were also perceived as a positive practice (9 comments) since all stakeholders may solve issues together.

Plans and recommendations made by the staff included contextualizing the program to the local communities in which it is implemented (3 comments), vary food provided through the program (1 comment), continue providing help since outcomes from this type of programs will show on the long term (3 comments), enhance collaboration between key partners (9 comments), review if program should run on conditional terms (i.e., schools not complying with provision of food to children 5 days a week should probably not receive aid anymore) (2 comments), strengthen key community players such as CTAs (3 comment), extend program to a public policy perspective to catch attention not only of local authorities (2 comments). All staff interviewees assessed that children, parents, teachers and principals view FFE as a positive program (9 comments) which helps not only children but other community members. They believe that children perceive the program as friendly because they receive food at school (9 comments) and because they are motivated to attend school due to the new techniques that teachers are implementing (3 comments). Regarding teachers, staff believe that they perceive the program as a contributor to their own continuous education and development or reinforcement of their own capabilities (3 comments). Staff believe that parents view FFE as an ally because through trainings they learned how to access local authorities, advocate for their communities' needs, and achieve results such as infrastructure improvements at the schools.

Lessons Learned and Best Practices

Lessons learned at the final evaluation reflect much of the information reported in the midterm evaluation, while new strategies and issues also emerged. Below we enumerate the lessons learned and the best practices associated with each.

(1) Favorable ratings of the Kemom Ch'ab'al methodology

Nearly all stakeholders rated the Kemom Ch'ab'al methodology highly in terms of its relevance and effectiveness, and in terms of its innovative use of a variety of teaching techniques in the classroom. Yet, 11.21% of principals said that no teachers within the school lead activities in both languages, and principals also said that, on average, teachers spend more time teaching in Spanish than K'iche'. Some teachers indicated they do not speak K'iche', which may account for the difference in time spent overall across schools teaching Spanish vs. K'iche'. The Kemom Ch'ab'al methodology is therefore emerging as a best practice for bilingual education, but further support is needed for teachers not comfortable teaching in K'iche'. Information from parent focus groups related to best practices suggested that PRODESSA was instrumental in supporting improved teaching. Onsite and immediate feedback and coaching provided to teachers by PRODESSA technicians during supervision sessions at schools allowed teachers to enhance their teaching techniques or apply new techniques to help improve children's attentiveness.

(2) Cultural relevance of food and dietary diversity for schoolchildren

The issues around pinto beans continue to pose a problem for program implementation. As in the midterm evaluation, most stakeholders identified pinto beans as being difficult to cook and requiring a lot of fuel, and that children did not like the beans. This issue is also of importance because pinto beans are culturally foreign in the context of Totonicapán, where black beans are commonly used instead. The final evaluation also revealed that schools receive supplemental budgets from MINEDUC for the purchase of additional foods to supplement FFE provisions. Commonly, PTAs purchase fresh fruits and vegetables, eggs, and occasionally chicken. The combination of FFE provisions with MINEDUC supplements thus constitutes a best practice in terms of dietary diversity, with the caveat that pinto beans should be replaced by black beans in future phases of FFE implementation.

(3) The possible impact of larger societal changes and migration patterns on school enrollment and attendance

One of the most significant lessons learned in the final evaluation is related to school attendance and enrollment. Attendance for boys dropped substantially since the midterm evaluation, although girls continued to attend at target rates. Enrollment also dropped significantly, such that a consistent and rather drastic downward trend in enrollment can be seen from baseline to final evaluations. While a best practice is not yet connected with this lesson learned, a recommendation in this report is conduct a barriers analysis to enrollment in Totonicapán (see Recommendations section). Anecdotal reports suggest that drops in student enrollment are a countrywide phenomenon in Guatemala, and that these decreases may be related to migration in search of greater economic opportunities.

(4) The importance of communication and collaboration at multiple levels of intervention

One of the main lessons learned according to stakeholders is that teamwork is crucial to achieve positive results. Communication and collaboration is essential, not only with community members, but also with key partners such as MINEDUC or PRODESSA. CRS staff have taken leadership in conducting interinstitutional meetings on a regular basis to discuss project-related successes and issues among a variety of stakeholders. Some of the challenges that have emerged through this process include motivating and organizing parents and community members to participate in program activities such as food preparation, trainings, and bilingual education. Other challenge is related to duplication of efforts related to bilingual education, such as the different methodologies and instructions given by USAID funded programs vs. the USDA FFE programs implemented in the same schools. For example, the USAID education program states that bilingual education should begin in 2nd grade while FFE states 1st grade. These differences understandably introduce confusion among stakeholders and have illustrated the need to communicate and collaborate more closely with other US Government entities.

CRS has taken a leadership role in addressing the issues at local, municipal, and national levels, through interorganizational meetings and advocacy to advance school feeding and literacy across the country. Information on best practices, gleaned from parent focus groups, suggest that regular interorganizational meetings allowed stakeholders to discuss and solve issues on-site and were also useful for identifying key contacts that were helpful when encountering problems in the field. In addition, the CRS monitoring system allowed stakeholders to identify delays or complications in the process in a timely manner and facilitated the development of strategies to overcome the issues.

(5) The central role played by parents and the importance of parent engagement and empowerment

The ultimate success of FFE relies on the commitment of parents to implement and be invested in the program. Parent focus group data suggested that parents felt empowered within committees in uniting school authorities and community members around shared goals and objectives, specifically around the food chain process (reception, storage, preparation, and consumption). Parents themselves have also experienced the benefits of education, through ongoing training in topics like sanitation. Parents have been able to translate this knowledge beyond the school environment into their homes and communities, for example, by promoting hygienic practices and clean environments related to food preparation. This type of capacity building for parents, in terms of increased knowledge and skills, thus may provide a diffusion effect beyond the school into communities, and also serves as an example of how empowering and building parents' capacities also supports long-term sustainability of program activities.

(6) The importance of defining and emphasizing sustainability, and communicating what has already been accomplished and what needs to be accomplished

As identified in the midterm evaluation, the issue of sustainability remains unclear for most stakeholders, and particularly for parents. Yet, interviews with USDA staff revealed a vision for sustainability that does not focus on increased parent involvement alone, but on advocacy and collaboration at the national level, and among governmental and private donors. As mentioned above, CRS has exerted significant leadership in these efforts to promote sustainability through MINEDUC and governmental support, outside of which the sustainability of current project activities (particularly food provision) is unlikely. These efforts are crucial and commendable, and should be communicated more to project stakeholders in the local and municipal levels. The result of this communication will be a definition of sustainability that does not expect parents to produce food provisions on their own to match current USDA support – a goal that is highly unlikely if not impossible. Having an understanding of what CRS and USDA mean by sustainability could empower stakeholders to understand where they can best contribute to long-term sustainability of the project, without the expectation that they must shoulder the program in the absence of future support.

DISCUSSION

The discussion of results is organized by the crosscutting questions guiding the evaluation. We will discuss implications for findings in each of the following areas: (1) Relevance; (2) Effectiveness; (3) Efficiency; (4) Impact; and (5) Sustainability.

A. Relevance

Evidence suggests that project activities are leading to the intended goals. Particularly for 3rd graders, literacy scores increased substantially from baseline and midterm score. However, 6th graders fell short of their literacy targets. This shortfall is not likely explained by teacher attendance which was highest for 6th grade compared to other grades. Yet, according to teachers, attendance for 6th grade boys was estimated to be quite low (50.59%) compared to girls (85.04%). Furthermore, only half of school directors believed that FFE has improved school enrollment. At least one CTA stated that enrollment is declining because children are migrating to urban areas and to the United States in search of economic opportunities. It is therefore possible that, for 6th graders, the demand to provide economically for themselves and their households outweighs the importance of continuing to focus on education. A USDA representative noted that decreasing school enrollment and attendance is a nationwide problem in Guatemala. This representative cited another organization implementing FFE in nearby Huehuetenango that conducted a study about decreasing enrollment. This study found that children were abandoning school to migrate in search of economic opportunities elsewhere. Parents in the current study, however, did not identify migration or economic need as reasons why children do not attend school.

Problems with food: About 1/3rd of principals identified some problems with food, and the most common problem was the type of food (74.29%). Qualitative information from parent focus groups (75% of schools) revealed the type of beans provided by FFE (pinto beans) was problematic for a variety of reasons: being hard to cook, culturally unfamiliar, uncooked beans causing stomach problems, and expensive given the amount of wood needed to cook the beans. These themes are similar to those expressed by parents in the midterm evaluation of FFE.

Benefits of curriculum: Opinions of the relevance of the Kemom Ch'ab'al methodology were virtually uniformly positive. Nearly all teachers and principals reported having been trained in the Kemom Ch'ab'al methodology, and a majority of teachers and principals could name each step in the methodology. Almost all principals believed that Kemom Ch'ab'al was effective in helping improve children's reading comprehension.

B. Effectiveness

Most results indicators increased substantially compared to baseline and midterm findings. However, a number of results were just short of the indicator target. These included literacy for 6th grade girls (33.87%, final target=35.19%) and 6th grade boys (32.98%, final target=34.31%), teacher attendance (83.3%, final target=90.0%), attendance for 3rd grade boys (68.52%, final target=85.0%) and attendance for 6th grade boys (65.21%, final target=85.0%). The potential reasons driving these lower numbers are explored in the Relevance section above.

Parents' ability to identify three reasons for education dropped precipitously to 16.81%, compared to 35.9% at the midterm evaluation, and well below the final target of 80.0%. One reason might be the manner in which the question was asked of parents: "In your opinion, why is education important for children?" Enumerators were also instructed not to prompt parents for answers, but simply to record what parents stated. The question in the baseline and midterm evaluations was as follows: "How does primary education help your children?" and the results were widely divergent in baseline (96.4%) and midterm (35.9%) evaluations. In the future, to capture this indicator more effectively, a better question might be as follows: "What are the three main reasons education is important for your child?" It would then be clear to parents that three reasons were expected. Otherwise, this indicator may be measuring a parents' reticence to engage with the enumerator, and not their commitment to education.

Most principals, parents and teachers believed that school feeding was effective in helping improve students' reading comprehension and attentiveness. In fact, principals and teachers alike identified school feeding as the most important factor in influencing attention, above teaching materials, techniques, and teachers' attendance rates. As noted in the Relevance section above, some issues emerged in midterm and final evaluations about the type of beans provided.

Parents agreed that collaboration is essential in preparing food effectively at schools, and with engaging the larger community to support its development. Project staff strongly believed that teamwork and collaboration among project actors are key to the success of the project. Staff pointed to working closely not just with community members, but with government agencies like MINEDUC and implementing partners such as PRODESSA and APCC. The unfortunate events that unfolded with APCC during Phase I reinforced the need to work in close collaboration with implementing partners. Regular interorganizational meetings were identified as a key strategy to support the project's success, strengthen collaboration, and avoid duplication of efforts.

C. Efficiency

More than ½ of principals indicated that another modality for reducing hunger would be more efficient and cost-effective. The alternatives provided by the principals, however, focused more on modifications to the existing program rather than on different programming models. For example, principals pointed to the creation or expansion of school gardens, as well as promoting home gardens to reduce student hunger outside of the classroom. Some reinforced the need to support local businesses in purchasing food and to provide food that was more culturally appropriate for children. Other issues related to this theme were drawing from existing community resources, and increasing parent involvement in the program.

D. Impact

In terms of results achieved at the final evaluation, the program had the greatest impact on increased literacy for 3rd graders; teachers' increased use of new and innovative teaching techniques; greater attention of students according to teachers; school attendance (for girls only); reduction in missed classes because of illness; strengthened school governments; more disbursements arriving on time; greater number of PTAs contributing to school improvement plans; and greater training and increased capacity of MINEDUC staff.

The program fell short of its target in increasing literacy for 6th graders. In addition, the number of parents who identified three reasons why education is important dropped considerably. Attendance for 3rd grade and 6th grade boys has also dropped. The possible reasons for these findings have been explored above. Teacher attendance has declined slightly since the midterm evaluation.

The mechanisms leading to improvement of outcomes appear related to school feeding, improved teaching methodologies, strengthened bilingual education, and improved community involvement in school feeding and governance. The missed targets may be the result of larger societal trends in Guatemala around migration and economic need (in the case of literacy and attendance for 6th graders), or problematic measurement (in the case of parents' identification of reasons why education is important).

E. Sustainability

CTAs tended to believe the program is sustainable without CRS and USDA support, but fewer teachers agreed with this assessment. Less than 1/3rd of principals believe the program would be sustainable and only about 1/3rd of principals had considered a plan for sustainability after USDA and CRS support ends. Parent focus groups in 80% of the schools identified sustainability as a problem, and expressed that as a community, they would not be able to support school feeding in the absence of CRS and USDA support.

A conversation about sustainability with USDA representatives was helpful in conceptualizing what sustainability might look like for FFE in Guatemala. The pursuit of sustainability should occur at multiple levels, from advocacy at the policy level, government budgets to support improved policy, and strengthened collaborations with local organizations and communities to improve capacity for implementation. USDA representatives indicated that CRS has been active at each of these levels, and there is evidence to suggest that the Government of Guatemala may pass a bill that requires school feeding for all children in the country. Importantly, in the context of the current study, all CTAs interviewed noted improvements in the government policy and regulatory frameworks, and 77% reported seeing an increase in the capacities of government institutions during the course of FFE implementation. Project staff also reinforced the need to pursue sustainability through strengthened collaborations with public and private institutions, and community members.

RECOMMENDATIONS

1) Conduct a barriers analysis to explore why literacy for 6th graders has plateaued.

At final evaluation, 6th grade boys and girls alike made little progress on reading comprehension compared to the midterm evaluation. Yet, at midterm, both boys and girls fared considerably better compared to baseline, such that the plateaued literacy rates at final evaluation are unexpected. We have speculated in this report about some of reasons behind a lack of increase in literacy, particularly related to lower enrollment and attendance more generally. However, more information is needed to examine the root causes of stalled literacy rates, to test the hypothesis that, at 6th grade, children are balancing the competing demands of schoolwork and economic need to work.

2) Conduct a barriers analysis to examine reasons behind decreasing school enrollment and attendance. Also examine why teachers' reports of attentiveness, and observed attentiveness, are significantly different.

Enrollment dropped substantially for both boys and girls since the midterm evaluation, and especially compared with the baseline evaluation. Stakeholders have noted that schools around the country are experiencing related declines in enrollment, a case example being in Huehuetenango. We speculated in this report that economic demands and migration may be affecting school attendance and enrollment, and there is some evidence to suggest these factors are increasing in the region. A barriers analysis study should be conducted to examine the drivers of lowered enrollment in Totonicapán.

At final evaluation, girls (both 3rd and 6th grade) exceeded their targets for school attendance. Their attendance was much higher than at midterm where, despite increasing since baseline, they did not increase as much as boys. However, boys' attendance (both 3rd and 6th grade) dropped precipitously since midterm, a surprise given their increased midterm attendance compared to baseline. A barriers analysis study should therefore be conducted to examine the causes of lowered attendance especially for boys.

This study also revealed a significant discrepancy between teachers' reports of student attentiveness in the classroom, compared with structured observations of student attentiveness. As part of this recommended study, CRS should examine teachers' expectations for student attentiveness, and consider training teachers on expected behavior for students in the classroom. The structured Observation of Classroom Conditions presented in Table 5 of this report may be helpful in reinforcing the importance of student attentiveness and what attentiveness in the classroom might look like.

3) Conduct a barriers analysis to examine reasons behind low teacher attendance rates.

At final evaluation, teacher attendance increased slightly from midterm, but was still lower than at baseline, and below the target for the results indicator. As noted in the midterm evaluation report, relying solely on directors' observations may have implicit and unknown biases, and it would be preferable to have a standardized way of collecting data from schools. A barriers analysis should be conducted to examine why teacher attendance seems to have stalled below the final target indicator. The midterm evaluation also recommended a number of incentives to improve teacher attendance: rewarding teachers each semester who have 90% or more attendance; offering in-school trainings to assist teachers in obtaining specialized certifications; and offering teachers take-home rations, the

amount of which is linked to their attendance. A barriers analysis could also examine whether the introduction of such incentives leads to increased attendance.

4) Vary the food provided by the program, and ensure that food is culturally appropriate.

As in the midterm evaluation, many parents and teachers complained about the pinto beans being difficult to cook, requiring extensive wood for cooking, and that the children did not like pinto beans. A conversation with a USDA representative revealed that, based on earlier feedback, pinto beans will be replaced with the more culturally appropriate black beans. Respondents also complained about the monotony of children eating the same or similar foods every day. The research team learned that MINEDUC also provides funding for school snacks, with which parents can purchase fresh fruits, vegetables, eggs, and other provisions. This recommendation is therefore twofold: (a) explore with USDA whether a greater variety of food could be provided through FFE, with input and direction from community stakeholders; and (b) provide trainings to parent volunteers charged with purchasing food from MINEDUC stipends, related to dietary diversity.

5) Reinforce the benefits of education with parents and improve future measurement of this indicator.

At 16.81%, the number of parents who identified three reasons why education is important is extremely low. This number also represents a substantial decrease from the midterm (35.9%) after being assessed at 96.4% at baseline. Given this variability, we speculate that measurement problems account for this low rate. As stated in the report, a better question to be asked in the future would probably be as follows: "What are three benefits of education for your child?". Otherwise, a more open-ended question may simply be measuring a parent's reticence to engage with the enumerator, rather than an accurate assessment of their commitment to their child's education. Nevertheless, parents are critical resources in children's education. Continued efforts need to be made to reinforce to parents the importance of education for children, not just in terms of literacy but also on the lifelong benefits education can provide.

6) Strengthen and coordinate training on bilingual education for teachers

A number of issues were raised around bilingual education within FFE, which are described in the table below, along with recommendations for addressing each issue:

Table 27. Issues and Recommendations Related to Bilingual Education

Issue	Recommendation
Differences in K'iche' language not accounted for in Kemom Ch'ab'al (Refer to page 10)	Provide the Spanish translation for words and passages in K'iche' so that teachers can translate from Spanish to the appropriate K'iche' dialect; and/or, include a K'iche' dictionary in Spanish to provide guidance
Many teachers do not speak K'iche' are not comfortable teaching it (Refer to page 10)	Conduct teacher trainings to enhance their capacity to apply the techniques in both Spanish and K'iche', even if teachers are not fluent in K'iche'
Schools are receiving different messages about teaching bilingual education, e.g., USAID-funded projects recommend that bilingual education begin at 2nd grade while Kemom Ch'ab'al begins in 1st grade (Refer to page 30)	Continue CRS leadership in interorganizational groups to address this challenge and develop a strategy for aligning the methodologies for consistent messaging across MINEDUC, USAID, and USDA projects

7) Consider expanding the Spaces to Grow program, and highlight potential benefits to directors and teachers

While the goal of the project was to implement the Spaces to Grow program in 1/3rd of the schools, and this target was almost achieved with 25.66% of schools having the program at the end of the overall project, it is recommended that this program expand and that all school consider implementation. The vast majority of principals (91.51%) indicated they would be interested in implementing Spaces to Grow. As noted in the midterm evaluation, efforts could be made to expand this program to more schools, and reinforce the program in existing schools. Spaces to Grow might also be a centerpiece around which further extracurricular activities could be built. In addition, Spaces to Grow may be an effective way to identify the stalled literacy rates for 6th graders (see Recommendation #1) and further study could identify whether the program helps in school retention.

8) Articulate what sustainability looks like for the FFE program, communicate this with beneficiaries, and enhance beneficiaries' capacities to operate independently.

Most beneficiaries noted that their belief that FFE is not sustainable once CRS and USDA support ends. Conversations with USDA representatives provided a helpful framework of the meaning of sustainability, as well as the extent to which CRS is involved as a leader in Guatemala in terms of school feeding and strengthening academics countrywide. As one USDA representative noted, sustainability needs to occur at multiple levels, including with policy advocacy, interorganizational work (with government agencies, and local and international NGOs), and capacity building of local communities, schools, and parent volunteers.

Given the responses of beneficiaries in relation to sustainability, CRS should communicate more to communities and schools about the achievements and expectations for sustainability. CRS should document and present to communities the variety of activities in which CRS is engaged to build sustainability for FFE in Totonicapán but also in Guatemala as a whole. Also, as noted in a recommendation from the midterm evaluation, CRS should also train school staff and parent volunteers on expectations for sustainability after CRS and USDA support is removed. This training would likely involve capacity building in the purchasing of food, the selection of food for nutrition and dietary diversity, as well as principles and skills of bilingual education. The development of a formal phase-out plan may be helpful for CRS to develop in anticipation of USDA's ending support for FFE – even if such a plan is not shared externally until it is needed.

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APPENDICES

APPENDIX A: RESULTS INDICATORS (see attached)

APPENDIX B: SCHOOL ENVIRONMENT MEASURE (MEDICIÓN DEL AMBIENTE ESCOLAR) (see attached)

APPENDIX C. FOCUS GROUPS ANALYSIS SUMMARY (see attached)

APPENDIX D. THEMES AND CODES FROM QUALITATIVE ANALYSIS (see attached)

APPENDIX E. FINAL EVALUATION MEASUREMENT INSTRUMENTS (see attached)