

## Using Opportunity to Learn and Early Grade Reading Fluency to Measure School Effectiveness in Honduras

### Executive Summary

In 2009, the Educational Quality Improvement Program 2 (EQUIP2), in partnership with CARE, conducted a study of school effectiveness in Honduras. Data were collected from 28 schools supported by CARE and 6 non-CARE schools in the municipality of Guajiquiro and the peri-urban areas of Tegucigalpa. The study aimed to determine whether schools provide adequate opportunities to learn (OTL) and whether teachers and students use those opportunities to ensure children learn to read fluently in the language of instruction (Spanish) by Grade 3. In particular, this study looked at whether schools are opening and functioning through the school year, how teachers and students use the time available during the day, whether materials are present and used by them, and whether class sizes are reasonable.

The data collected on opportunities to learn show that CARE schools were open on average 92 percent of the days they should be and teacher and student attendance rates were quite high: 94 percent and 98 percent, respectively. However, time loss caused by late start, early close and time-on-task was quite significant. Schools used only 82 percent of the available day for instruction because of late start, early end, and prolonged breaks in the day for recess, and students were on task only 56 percent of the time. While CARE and non-CARE schools varied for each of these factors, the greatest difference was in terms of time loss at the school level. CARE schools used 82 percent of the school day for instruction, while non-CARE school only used 76 percent of the day, losing more time to delayed starts and prolonged recess.

In terms of availability and use of materials, the majority of students in both CARE (67 percent) and non-CARE schools (63 percent) had language arts books. However, across the entire sample students were observed using textbooks less than 25 percent of the time. In both types of schools, students spent approximately 28 percent of their on-task time in Grade 3 Spanish language arts classrooms involved in some sort of reading activity.

When looking at reading competencies, the study found by the middle of Grade 3, CARE students were able to read at a satisfactory level. On average, students in the CARE sample could read at a speed of 73 words per minute (wpm). The non-CARE schools did not demonstrate the same level of reading fluency results. Compared to 1 percent of students in CARE schools, 40 percent of students in non-CARE schools could not read a single word, and the average reading speed for this group was 36 wpm. In terms of reading comprehension, while the majority of students in the sample could answer approximately three of the four comprehension questions correctly, only 23 percent of the students were able to answer all four questions.



While students in CARE schools demonstrated adequate reading competencies, researchers still found there was a large range in reading abilities from school to school and from student to student in the same class. Schools in the sample varied considerably in terms of the number of days they were open, how regularly teachers attended, the frequency and length of breaks provided throughout the school day, and the availability of teacher and student materials. Schools also varied in terms of the time students spent on task within the classroom and between multi- and single-grade classrooms, and the types of activities in which students were more often engaged.

This research shows that more of the school day needs to be effectively used. Furthermore, while students in CARE schools did demonstrate adequate reading fluency, students still demonstrated some weakness in basic comprehension skills. More time in both CARE and non-CARE schools should be devoted to reading with a particular emphasis on interpretation and discussion of text.

## Introduction

CARE began its work in Honduras in 1954, when the organization provided emergency assistance to hurricane victims. It has since expanded its programmatic scope to include the provision and support of quality educational opportunities for children in disadvantaged areas.

In 2009, EQUIP2 teamed with CARE to research the effectiveness of the schools that receive support from the organization. Literacy is perhaps the most critical outcome of primary education. This study assesses whether students are learning to read by Grade 3. School effectiveness is measured and evaluated in terms of both specific student learning outcomes and the opportunity to learn provided by the school. To evaluate students' opportunity to learn, data were gathered to determine whether schools consistently provide opportunities for students to learn and, in particular, to learn to read. CARE is in the process of evaluating the support services it provides to schools and will use the findings presented in this report to identify ways to improve its school support efforts in Honduras.

Although significant progress has been made toward expanding education opportunities, many countries are still struggling to find ways to secure and fund a quality education for all their children. In previous research, EQUIP2 considered whether complementary, community-based schools could serve as a viable alternative for the provision of universal primary education. Ten case studies of complementary programs allowed EQUIP2 to develop a methodology for assessing how effective and cost-effective these programs are in terms of providing access, ensuring completion, and promoting learning (DeStefano, Moore, Balwanz & Hartwell, 2007).

The EQUIP2 research on complementary models found some alternative programs are more effective and cost efficient than public schools in their countries in part because they more consistently ensure a basic opportunity to learn. The complementary program schools are located closer to where students live, the calendar and daily schedule is tailored to fit the community's lifestyle, teachers are recruited locally, and the curriculum

is scaled down to allow more focused time on core skills. These adjustments help ensure that teachers and students attend school more regularly and students' learning is concentrated on mastery of essential, basic skills.

To build on these findings, EQUIP2 examined opportunity to learn as a framework for understanding how schools can improve teaching and learning. In *Opportunity to Learn: A high impact strategy for improving educational outcomes in developing countries*, EQUIP2 identified 12 factors that are necessary to establish a foundational opportunity to learn:

1. Percentage of days school is open;
2. Teacher attendance;
3. Student attendance;
4. Percentage of the school day available for instruction;
5. Percentage of student time-on-task;
6. Equivalent percentage of days available for instruction;
7. Percentage of students with a textbook;
8. Percentage of observed textbook use;
9. Percentage of time spent reading;
10. Grade 3 reading ability;
11. Class size; and
12. School support.

These factors provide a practical framework for assessing whether a school is providing children the maximum opportunity to learn. However, to understand whether these factors contribute to students' learning, it is necessary to develop tools to evaluate students' educational achievement, especially in terms of their ability to read. One drawback of the EQUIP2 complementary education research was the lack of data in most countries on student learning outcomes. Proxies such as end-of-cycle exams or other standardized tests had to be used, which only include students who make it to the end of the cycle, and therefore do not reflect the full range of performance of students in the system (Kellaghan, 2004).

While Honduras is currently developing a national achievement exam to provide school-level outcome data, schools in this sample have not been included in the pilot of these tests. To obtain current and accurate achievement data on the students in our sample, EQUIP2 decided to draw on early grade reading assessment (EGRA) methodologies and tools. EGRA provides an easy way to design and implement a methodology for quickly assessing a variety of early literacy skills, and therefore to gauge school and/or system effectiveness at fostering acquisition of those skills. The EdData II project in particular has been instrumental in promoting and improving the use of EGRA as a measure of school effectiveness and has now supported its application in almost 20 countries. However, one of EGRA's drawbacks is its floor effect: It fails to measure the skills of students who are below the 'floor' of being able to read letters, words, or connected text. Beginning with previous school effectiveness studies, EQUIP2 worked with Save the Children to refine the Concepts about Print (CAP) methodology developed by Marie



Clay (2000) as an additional assessment tool to ensure the evaluation of pre-reading skills in students who are non-readers.

The combination of the opportunity to learn framework, EGRA, and CAP inspired the design of the current EQUIP2 research on effective schools. This research is based on the idea that school effectiveness, as measured by whether the school enables children to learn to read, is a function of how well the school assures a foundational opportunity to learn and whether it draws on teaching approaches that make the best possible use of the instructional time that is available. The research questions for the study are as follows:

- How well do schools provide opportunity to learn?
- How does actual opportunity to learn compare to potential opportunity to learn?
- How does opportunity to learn vary across schools?

Through the partnership with CARE, EQUIP2 was provided access to schools in the municipality of Guajiquiro in the department of La Paz and in the peri-urban areas of Tegucigalpa where CARE currently works. This paper presents the results of the collaboration between CARE and EQUIP2 in Honduras.

## Context

Honduras was selected to participate in the Education for All (EFA) Fast Track Initiative in 2002. While the country has made progress toward meeting its EFA goals and achieving universal basic education, challenges in terms of governmental leadership, donor harmonization, and capacity development have hindered some of the country's work (Opazo, 2008). As of 2007, the net enrollment rate for primary school was 94 percent, but only 38 percent for pre-primary and 64 percent for secondary. Survival rate to Grade 5 is only 78 percent, and in rural areas students only finish four years of schooling on average (UNESCO, 2009; UNICEF, 2009).

CARE officially established its first country office in Honduras in 1959 and has worked in areas including health and nutrition, small enterprise development, agro-forestry, and education. Through its education initiatives, CARE strives to secure quality education for children in urban, peri-urban, and rural areas and to support Honduras in the achievement of EFA targets. In Guajiquiro and the peri-urban areas of Tegucigalpa, CARE collaborates with local and regional stakeholders in the design, organization and implementation of education projects. CARE also provides training to principals and teachers, supports student initiatives such as student government throughout its schools, and has designed and implemented a new curriculum based on national standards.

In total, CARE directly supports 46 schools but is in the process of expanding its program to additional schools in the peri-urban area of Tegucigalpa. Table 1 summarizes basic data on CARE's programs.

**Table 1. Basic information about schools in the target area**

Total number of schools	46
Total enrollment	3231
% girls	51%
Schools receiving support:	
for 5 or more years	41
for 3 to 4 years	2
for 2 or less years	3

## Sampling and Methodology

EQUIP2 initially planned to visit at least 30 of the 43 schools CARE currently works in, but because of teacher strikes and unexpected school closings, the research team was only able to collect data at 28 CARE schools. To choose the initial sample, CARE's 46 schools were stratified based on distance from a town center, total student body, and the number of students enrolled in Grade 3. Schools with fewer than three Grade 3 students enrolled in 2008 were excluded from the final sample. In addition, six comparison schools were chosen based on size, distance to town, and socio-economic factors. The comparison schools were located right outside of the municipality in which CARE works and would have been eligible for assistance had they been located within Guajiquiro. The characteristics of the final sample of CARE schools and the six comparison schools are summarized in Table 2.

**Table 2. Characteristics of schools in the sample**

	CARE	Non-CARE	Total
Total Number of schools	28	6	34
Rural schools	25	6	31
Urban schools	3	0	3
Schools with multi-grade classroom	22	4	26
Schools with only single-grade classroom	5	2	7
Average % students with UNB <sup>a</sup>	86%	88%	86%
Total enrollment	2623	549	3172
Grade 3 Enrollment	361	100	461
Average Grade 3 class size (all students)	27	32	29
Average Grade 3 class size (only 3rd graders) <sup>b</sup>	13	17	14

a. Unmet Basic Needs (UNB) is a poverty measure used in many Latin American Countries. See United Nations Statistics Division Handbook on Poverty Statistics: Concepts, methods, and policy (unpublished draft).

b. In 26 of the 34 schools visited in this study, the Grade 3 classroom was a multi-grade classroom. These classrooms ranged from two to six grades in one room.



The research team spent one full day at each of the schools working with the principal, teachers and students. The visits included: 1) a general observation of the school documenting the presence of the principal, teachers and students, the condition of the facilities, and the actual time students and teachers spent in class; 2) interviews with the principal to obtain school-level data such as student enrollment, teacher and student attendance, school schedule, and information on personnel, trainings, support visits, and community participation; 3) one-hour observation of classroom instruction and activities in Grade 1, 2, and 3 classrooms using the Stallings Classroom Observation Instrument; 4) interviews with each of the teachers observed; 5) interviews with Grade 3 students; and 6) administration of two reading assessments (EGRA and CAP) to Grade 3 students to measure print awareness and basic literacy skills.

**Table 3. Characteristics of students in the sample**

	CARE	Non-CARE
Number of Grade 3 students tested	318	69
Boys	158	35
Girls	157	34
Average age (years)	9	9
% over age (older than 10 years)	9%	4%
% who attended kindergarten	86%	87%
% who did not repeat Grade 3	96%	94%
% who did not repeat any grade	73%	78%
% students whose parent reads to them	87%	83%
% who live 10 min. or less from school	43%	30%
% who walk 10 to 30 min. to school	36%	21%
% who walk more than 30 min. to school	21%	49%
Average family size	7	7
% of students who earn money for work	14%	17%
% who have in their home:		
- a radio	96%	99%
- a toilet	51%	23%
- electricity	32%	19%
- a television	35%	14%
- a refrigerator	17%	0.06%
- running water	22%	30%

Given the small universe of Grade 3 students at each school, the research team made the effort to interview every third grader present on the day of the visit. In the few schools with more than 25 Grade 3 students present, a group of 20 were randomly selected to be interviewed and to participate in the reading assessments. The number of boys and girls

in the sample was selected to match the gender ratio in the classroom. The students were first asked a number of questions pertaining to their home environment and attendance at school. The literacy tests included CAP questions to assess pre-reading skills and student familiarity with printed text and books and EGRA components to assess the number of letters recognized in isolation and the number of words read correctly in context per minute. The number of words read correctly per minute was used as the measure of reading fluency, a recognized and robust index of reading comprehension that reliably differentiates between strong and poor readers as demonstrated in Matthew Jukes, Shaher Banu Vagh, and Young-Suk Kim's 2006 study, *Development of Assessments of Reading Ability and Classroom Behavior*.

Table 3 provides a summary of student characteristics in the CARE and non-CARE schools. The sample was equally divided between boys and girls who had an average age of nine. While only a small percentage of CARE and non-CARE students had already been in Grade 3 (4 and 6 percent, respectively), more than 20 percent of the students in each group had repeated a grade at least once in their schooling career. The majority of CARE students lived within a 30 minute walk to school. Students also had an average family size of seven and 14 percent worked outside their homes. While almost all children reported having radios in their homes, only 32 percent had electricity and 22 percent had running water. On average, almost 50 percent of students in comparison schools lived farther than 30 minutes from school. A smaller percentage of students from non-CARE schools had electricity (19 percent) or a toilet (23 percent) but more had running water (30 percent).

## Limitations of the Study

While the data presented in this study are robust and representative of education in these schools, there are important limitations to the methodology and data that must be recognized. Although the researchers were able to visit 65 percent of the schools which CARE supports plus six additional comparison schools, this is not a representative sample of schools throughout Honduras. We are therefore unable to use the data to make larger assumptions about schools across Honduras. Furthermore, the school sample size was limited because of the day-long school visits. The small sample of schools made it difficult to build a reliable model that could determine statistically significant relationships between variables at the school level. This study presents descriptive statistics and analyzes simple relationships among the different variables measured using two-tailed t-tests with and  $\alpha \leq 0.05$ . Furthermore, students' performance on the reading assessments might have been negatively affected by their unfamiliarity with the EGRA methodology.

This study focuses on results from the CARE schools but data from the comparison schools will also be included to help provide insight into the state of education at non-CARE rural schools in the department of La Paz. While the comparison group can help demonstrate what happens in public rural schools around the area in which CARE works, this is not to be seen as a representative sample of non-CARE schools throughout Honduras and does not serve as a control group. Although the conclusions presented



here are mainly limited to CARE schools, findings will still shed light on weaknesses within the education sector as a whole and highlight approaches Honduras could take to strengthen its education system.

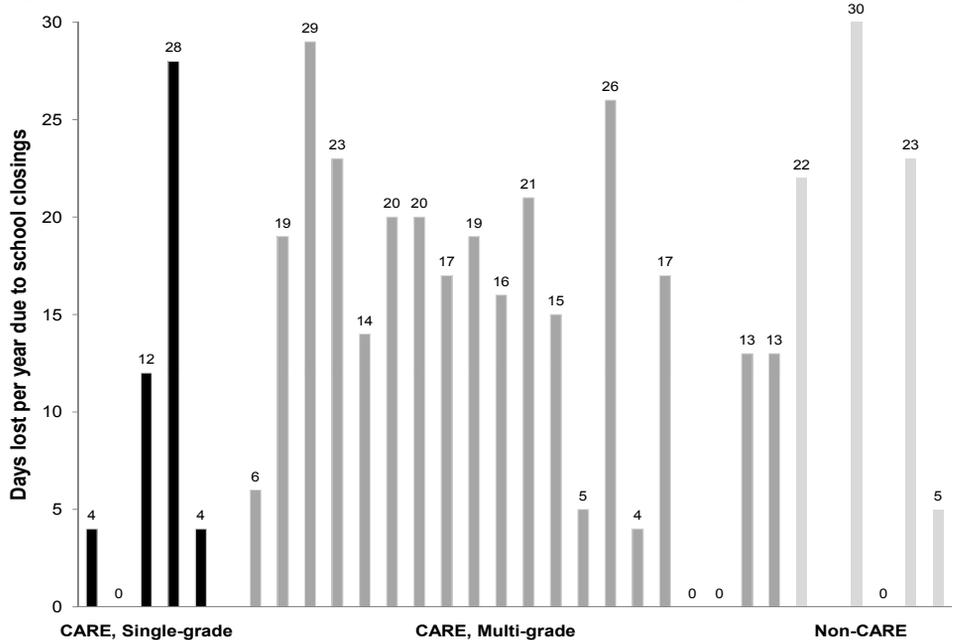
### Findings

To look at school-level factors EQUIP2’s opportunity to learn framework was used. The researchers used the 12 OTL factors both individually and collectively to determine the effectiveness of each school in the study at maximizing opportunities to learn.

#### *OTL Factor 1: Percentage of days school was open*

Before schools can consider improving the actual learning process, it is necessary to ensure adequate learning time is provided. In Honduras, the official school year lasts 200 days, beginning in February and ending in November. Using data gathered from school records and interviews with school principals, it was found that students in the sample of CARE schools lost 2.3 days of classes on average because of a late start of the academic year. Few of the schools in the CARE sample started on time and some schools began as late as nine days after the official start date. In addition to the late start of the academic year, schools had been closed on average five additional days by the time of data collection, not counting official holidays. This leads to an annual average of 14 school days lost per year, with some schools losing as few as 4 days and others losing as many as 29 days per year. Schools with multi-grade classrooms lost on average 16 days, whereas schools with single-grade classrooms lost on average only 9 days (see Figure 1). This difference might be attributed to the fact that in Guajiquiro, where most of the schools with multi-grade classrooms are located, schools often closed one day a month around pay day so that teachers could go to the bank and attend to personal errands.

**Figure 1. Days lost per year because of unofficial school closings, by school**



Non-CARE schools lost, on average, fewer instructional days than CARE schools because of school closings. Non-CARE schools started the academic year later than CARE schools (an average of 5 days versus 2.3 days, respectively), but lost fewer instructional days because of unofficial school closings during the academic year (10 days per academic year).

### ***OTL Factor 2: Teacher attendance***

Teacher absenteeism rates were calculated based on data provided by teachers in interviews and triangulated with school documents and student attendance books. At the time of the interview, CARE teachers had been absent 2.6 days on average for official reasons (such as attendance to teacher training activities, or meetings at the district offices), and 1.16 days for personal reasons. Teachers in non-CARE schools had been absent five days on average for official reasons, and 2.3 days for personal reasons. Based on this information, the researchers calculated an estimate of teacher absences throughout the school year. According to this estimate, teachers in the sample of CARE schools were absent on average 10 days per school year, with some teachers missing no class and others absent as many as 27 days. Teachers in schools with multi-grade classrooms tended to be absent less frequently than teachers in schools with single-grade classrooms, an average of 10 days an academic year versus 12 days, respectively. Teachers in non-CARE schools were absent 17 days per academic year, with individual absenteeism rates ranging from five days per year to as many as 42 days per year.

### ***OTL Factor 3: Student attendance***

Student absenteeism rates were calculated based on information provided by teachers during interviews, triangulated with information from student attendance records. As with teacher absenteeism rates, the researchers estimated yearly student absenteeism rates. On average, students in CARE schools in Honduras were absent from school 4.5 days per year, with a range of zero to 30 days. Students in non-CARE schools missed 8 days per year, with a variation ranging from 3 to 22 days per year. This low absenteeism rate was supported by teachers in many schools who said that students tended not to miss class. However, teachers also reported that absenteeism rates often increased during the rainy season in June, which was after the data collection team had completed the school visits.

Distance between the school and home of students does not appear to affect student absenteeism. In the sample of CARE schools, students lived on average 25 minutes away from school, with a range of 8 to 46 minutes. Schools with single- and multi-grade classrooms were located at a similar distance from the homes of their students. Regarding student absenteeism, the researchers found no correlation between distance traveled to school and students' self-reported absenteeism from school the week before the interview took place. Furthermore, no significant correlation was found between reading fluency and distance to school, or between reading fluency and student absenteeism.



**OTL Factor 4: Percentage of the school day available for instruction**

In addition to school closings and teacher and student absenteeism, instructional time was lost as a result of late start and early school closing, transition time before and after the official recess or lunch break, and prolonged recess and lunch. Actual instructional time was calculated based on the school observation records generated by the research team during the field visits. The researchers calculated the actual instructional time as the difference between the official duration of the school day in Honduras (five hours) and the total time lost when students were not engaged in instructional activities inside their classrooms. Counting official recess as time lost to instruction, the average CARE school lost 56 minutes per day, with total time loss ranging from zero to 125 minutes. Non-CARE schools lost 76 minutes on average, with a total time loss ranging from 60 to 95 minutes. Schools with multi-grade classrooms lost, on average, less time than schools with single-grade classrooms (53 minutes versus 70 minutes).

**OTL Factor 5: Percentage of student time-on-task**

Using the Stallings Observation Instrument, researchers observed single- and multi-grade classrooms for periods of 60 minutes. The activities of the teacher and the students in the classroom were coded and broadly divided into those that are “on task” and “off task.” On-task activities include reading aloud, demonstration/lecture, discussion/debate, practice/drill, seatwork, verbal instructions, silent reading, and interpreting text. Off-task activities include leaving the room, socializing, dealing with discipline/classroom management, or being unengaged.

**Table 4. Average percentage of students by type of activity in classroom observations**

Type of activity	CARE	Non-CARE
Reading aloud	2%	2%
Demonstration/lecture	5%	4%
Discussion	6%	3%
Practice/drill	4%	2%
Copying	6%	7%
Reading text	2%	4%
Interpreting and discussing text	1%	0.3%
Seatwork	26%	31%
Verbal instructions	5%	3%
Time-off-task	45%	41%

Students in non-CARE schools were on task more often than students attending CARE schools. On average, students in CARE schools were observed to be involved in academic activities 55 percent of the time as compared to 59 percent for students in non-CARE schools. When students were on task, both in CARE and comparison

schools, they were mostly engaged in seatwork activities (25.8 percent of students in CARE schools and 30.6 percent of students in non-CARE schools). Apart from seatwork, students in CARE schools were most often observed copying or engaged in discussion while in comparison schools, students tended to engage more in demonstration activities or reading texts. Table 4 shows the average percentage of students engaged in different types of activities across all classroom observations.

Table 5 disaggregates student engagement in CARE schools by type of classroom. There was only a 2 percentage point difference in time spent off task between the two types of classrooms. Not surprisingly, students in multi-grade classrooms spent more time doing seatwork and were less often engaged in drills or discussion exercises. However, while independent reading was rarely observed in single-grade classrooms, students in multi-grade classrooms were observed reading 2.5 percent of the time.

**Table 5. Average percentage of students by type of activity in classroom observations, CARE single- and multi-grade classrooms**

	CARE Single-grade	CARE Multi-grade
Reading aloud	1%	2%
Demonstration/lecture	6%	5%
Discussion	9%	4%
Practice/drill	8%	2%
Copying	8%	5%
Reading text	0%	3%
Interpreting and discussing text	0%	1%
Seatwork	17%	30%
Verbal instructions	6%	4%
Time off task	44%	46%

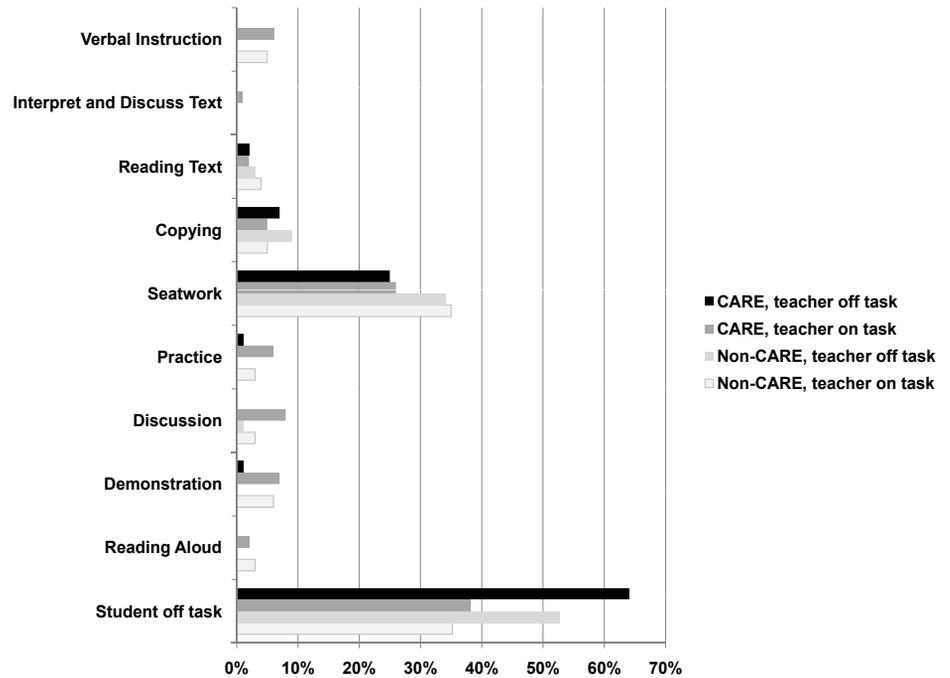
In terms of teachers' activities, CARE teachers were observed to be involved in academic activities 72 percent of time with a range of 0 to 100 percent. In comparison schools, teachers were observed to be involved in academic activities only 63 percent of time. When teachers in either type of school were off task, they were mostly engaged in classroom management, while other activities such as social interaction, being outside the classroom, or disciplining students were less prevalent.

Not surprisingly, when teachers were off task, students were also more likely to be off task. When teachers were observed as off task at CARE schools, on average 64 percent of the students would be off task as well. When the teacher was on task this percentage dropped to 38 percent. In comparison schools, 53 percent of students tended to be off task when the teacher was off task, compared to 35 percent when the teacher was on task. In general, when teachers were on task, students tended to engage more in learning activities although there are different patterns in activities. When the teacher was on



task, students in CARE schools tended to engage in activities such as interpreting and discussing text, practice, and discussion more often than students in non-CARE schools. Students in comparison schools tended to engage more often in seatwork, reading text, and reading aloud when the teacher was on task. When the teacher is off task, students in both CARE and non-CARE schools tended to do more copying. Seatwork is equally present when the teacher is on or off task. Figure 2 depicts the main types of student activities when the teacher is on task and off task.

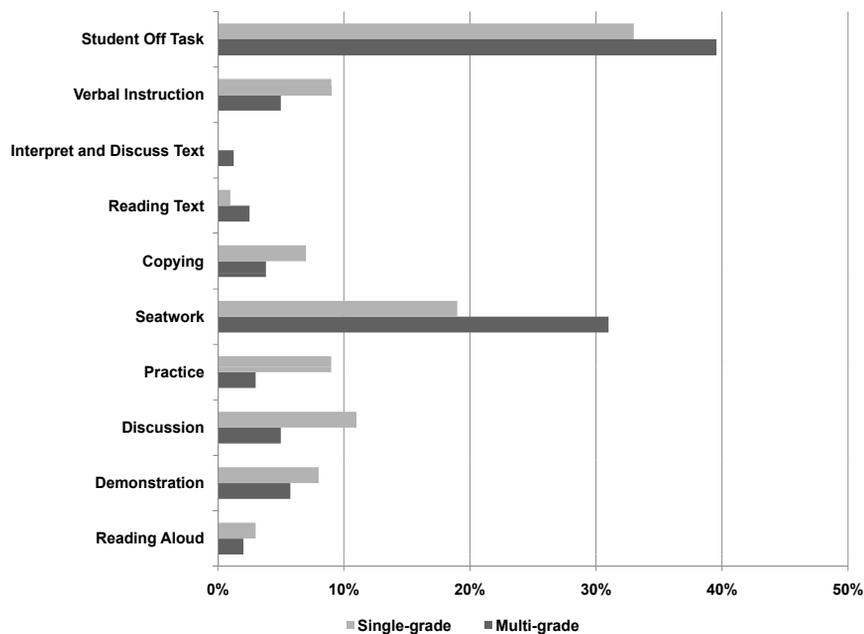
**Figure 2. Student activities when the teacher was on and off task, by type of school**



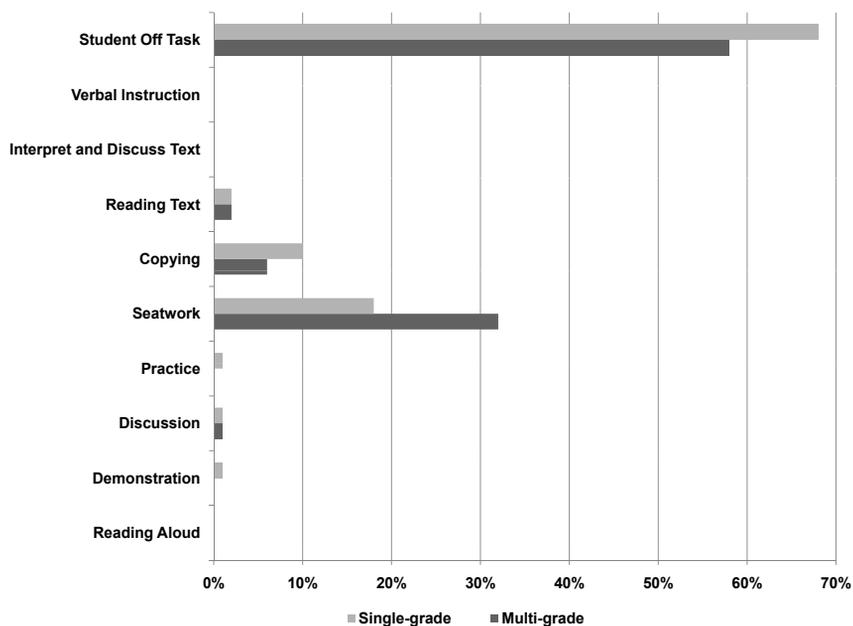
While teachers in multi-grade classrooms tended to be on task more often than teachers in single-grade classrooms (74 percent versus 69 percent), the percentage of students on task in multi-grade classrooms was not significantly different from the percentage of students on task in single-grade classrooms. However, while students in both types of classrooms were on task approximately the same amount of time, their time was distributed differently in terms of activities. Figures 3 and 4 depict the distribution of students' time by activity within single- and multi-grade classrooms depending on whether the teacher was on or off task.

When the teacher was on task, students in multi-grade classrooms were off task more often than students in single-grade classrooms. When engaged in learning activities, students in multi-grade classrooms tended to spend more time on seatwork, interpreting and discussing text, and reading text. In turn, they did less practice, copying, discussion, and demonstration than students in single-grade classrooms.

**Figure 3. Student activities when teacher was on task, by type of classroom**



**Figure 4. Student activities when teacher was off task, by type of classroom**



When the teacher was off task, students in multi-grade classrooms were on task more often than students in single-grade classrooms. While on task, students in multi-grade



classrooms engaged in more seatwork, reading text, discussion, and reading aloud activities than students in single-grade classrooms.

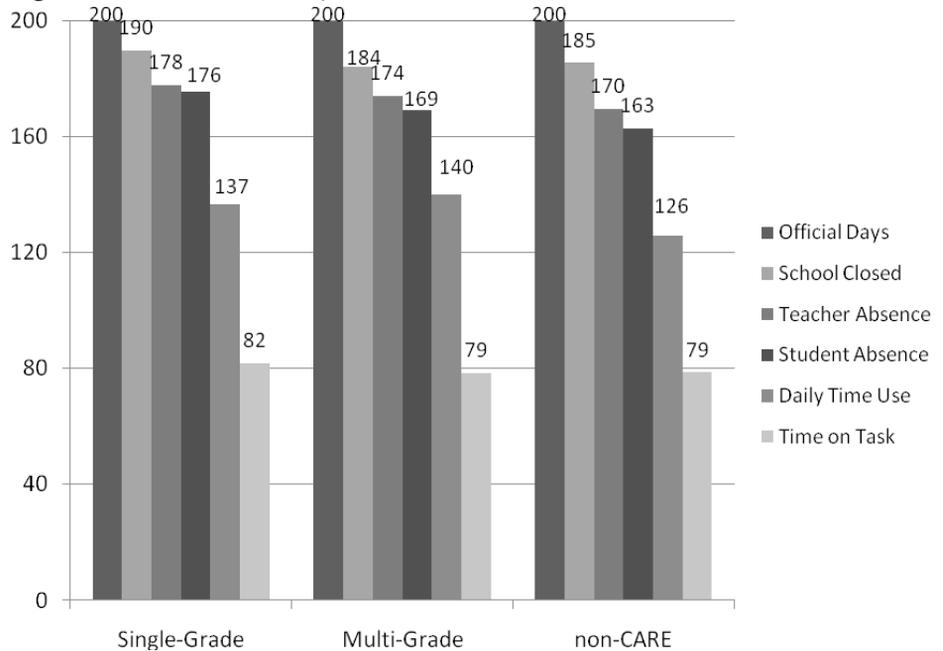
**OTL Factor 6: Equivalent percentage of days available for instruction**

In this study, Factors 1–5 are combined into Factor 6: the equivalent percentage of days available for instruction. The objective was to compare the amount of time actually available to the amount of time potentially available based on the official school calendar. To calculate the equivalent percentage of days available, researchers started with the percentage of days school was open (the official number of school days minus the number of days a school was closed when it should have been open). Teacher and student absences were factored in, as learning could only occur when both groups were present. Time lost for breaks in the school day was then factored out. Finally researchers accounted for time-on-task to differentiate between classroom time used for learning activities as opposed to non-instructional activities.

To estimate the equivalent number of days available for learning, we subtract from the total days in the school year (200) the number of days school was closed, the number of days lost because of teacher and student absence, the amount of instructional time lost because of late opening/early close/recess, and the number of days lost because students were off task.

Figure 5 summarizes the effects of each variable on the total days available for learning in CARE’s multi- and single-grade schools as well as the Non-CARE schools included in this study.

**Figure 5. Total time lost, by OTL indicator**

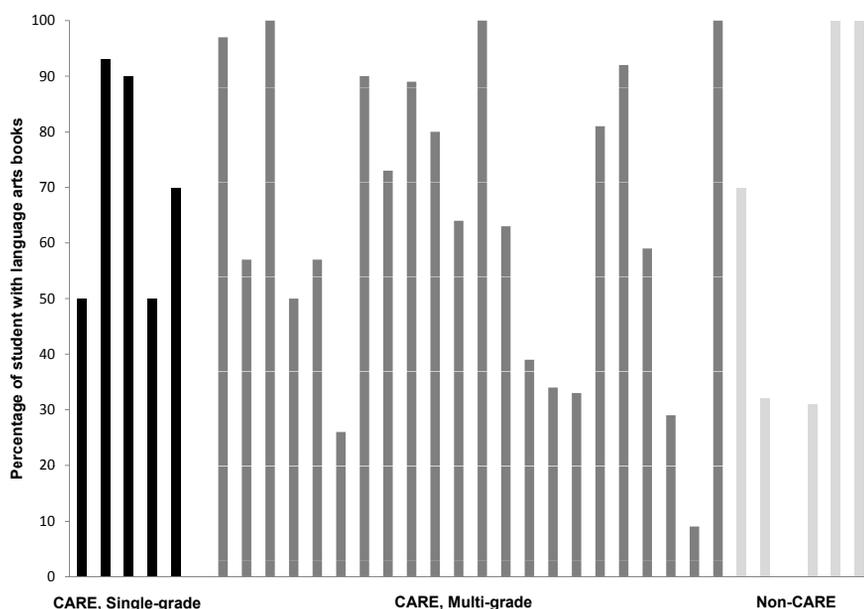


The results show little difference among CARE single-grade, CARE multi-grade, and non-CARE schools. On average, children in CARE multi-grade schools and comparison schools had the equivalent of 79 days of school available to them—40 percent of the actual time that should have been available to them. Students in CARE single-grade schools had an average equivalent of 82 days, or 41 percent of the school year available. Activities outside the classroom, including recess, lunch, and extended breaks throughout the day, together with time students spent off task inside the classroom, account for the greatest proportion of time lost. It is essential that children have time off during the school day to be able to better focus while in the classroom. However, it is important to note that a large portion of instructional time is lost during breaks, and when they extend past their scheduled limit, students’ opportunity to learn is reduced.

### *OTL Factor 7: Percentage of students with a textbook*

Research on school effectiveness in developing countries suggests that availability of materials is a crucial factor in student achievement (Zhang, et al., 2008). On average, the majority of students in both CARE (67 percent) and non-CARE schools (63 percent) had language arts books. However, while 54 percent of CARE students were observed with a Spanish language activity book, only 22 percent of students in comparison schools had such books. While there was still a wide variation in the availability of language arts books (see Figure 6), in most schools language arts books were available in quantities that would enable teachers to use them to support instructional activities. However, language arts textbooks and workbooks were observed to be in very poor condition due to the fact that new books had not been supplied to students recently. Students are supposed to be provided their own individual books each year but some schools were using books from three years past.

**Figure 6. Percentage of students with language arts book, by school**





Teacher materials, such as teacher guides, were scarcer than student textbooks. Spanish language arts teacher guides were found in 32 percent of CARE classrooms observed, mathematics teacher guides in 45 percent, science teacher guides in 32 percent, and social studies teacher guides in 29 percent. In general, teaching materials were less available in schools with multi-grade classrooms than in schools with single-grade classrooms. With regard to language arts in particular, while teacher guides were found in 58 percent of single-grade classrooms, in multi-grade classrooms teacher guides were found in only 25 percent of observations (see Table 6).

Teacher materials were scarcer in non-CARE schools than in CARE schools, with the exception of teacher guides for Spanish language arts. In comparison schools, Spanish language arts teacher guides were found in 42 percent of classrooms observed, while mathematics, science, and social studies teacher guides were found in only 25 percent of observed classrooms.

**Table 6. Availability of teacher guides, by subject and type of classroom observed**

	CARE Single-grade classrooms	CARE Multi-grade classrooms	Non-CARE classrooms
Language Arts	58%	25%	41%
Mathematics	54%	40%	25%
Science	45%	28%	25%
Social studies	47%	24%	25%

***OTL Factor 8: Percentage of observed textbook use***

In all but two schools, textbooks were available in large enough quantities to enhance instruction. However, across the entire sample, students were observed using textbooks less than 25 percent of the time. Students in CARE single-grade classrooms had the lowest overall percentage of textbook use (4 percent), while use in CARE multi-grade and non-CARE schools was similar (23 and 22 percent respectively). For teachers in multi-grade classrooms, textbooks are an important resource to help ensure that students are engaged in a learning activity while she/he is occupied with another grade. It is therefore important that teachers know how to make the best use of these materials to ensure students are maximizing their independent learning time. The limited use of textbooks in single-grade classrooms might be attributed to teachers’ ability to give the same lecture to the entire class.

***OTL Factor 9: Percentage of time spent reading***

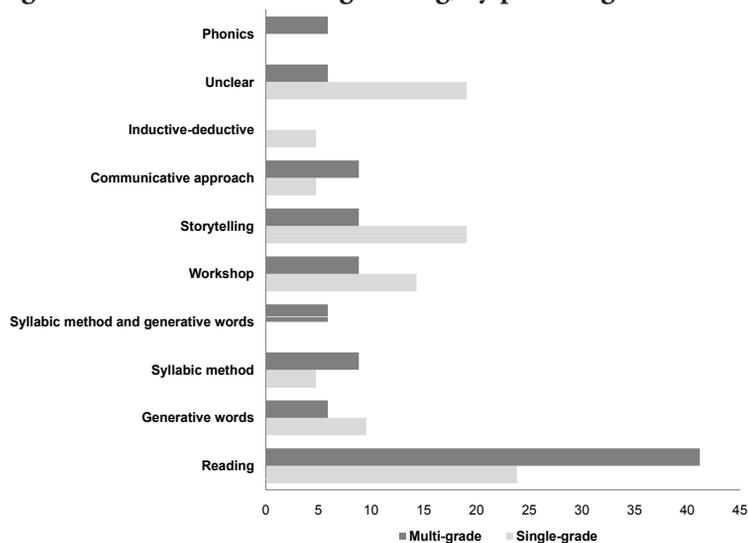
To analyze opportunities schools are providing for students to learn to read by the third grade, the researchers looked at both the teachers’ approach and the time dedicated to teaching literacy skills in their classrooms. Data on students’ time engaged in reading activities were gathered during observations of Grade 3 Spanish Language Arts classrooms (or multi-grade classrooms that contained Grade 3 students). Reading activities were categorized as reading aloud, reading texts, and interpreting and discussing texts.

Literacy instruction practices in CARE and comparison schools were found to be roughly similar. In both types of schools, at least one student was involved in some sort of reading activity 28 percent of their total time-on-task. In CARE schools, there was a significant difference between single-grade and multi-grade classrooms in terms of the amount of total time students spent reading. While in multi-grade classrooms students were observed involved in a reading activity about 33 percent of their total time-on-task, students in single-grade classrooms spent less than 1 percent of their time doing so. In non-CARE schools, students were observed reading 18 percent of the time.

While the government of Honduras has implemented the communicative approach as the official method for teaching reading, this study found that teachers varied considerably in terms of what method they chose to use in their own classrooms. When asked how they teach reading and literacy skills, the majority of teachers in the entire sample of schools said they ask their students to read individually or in groups (47 percent) while 28 percent of teachers were unable to articulate the method they use (categorized as “unclear”). Other commonly used methods included storytelling (“*metodo de cuentos*”), in which the teacher reads a text out loud to students while they follow along and are then asked questions, and workshops where an entire group of activities are planned around one text to teach vocabulary, concepts, and the actual reading itself.

Teachers in CARE schools preferred methods such as phonics, the communicative approach, workshops, syllabic approach, and reading in general. CARE is currently piloting a workshop approach in some of their schools that encourages utilizing a number of different strategies to teaching reading. The implementation of this pilot might have had an impact on the types of teaching strategies many teachers reported using. In turn, methods such as storytelling, generative words, inductive-deductive, and a combination of syllabic and generative words were more prevalent in non-CARE schools. The full range of teaching methods employed by teachers is shown in Figure 7.

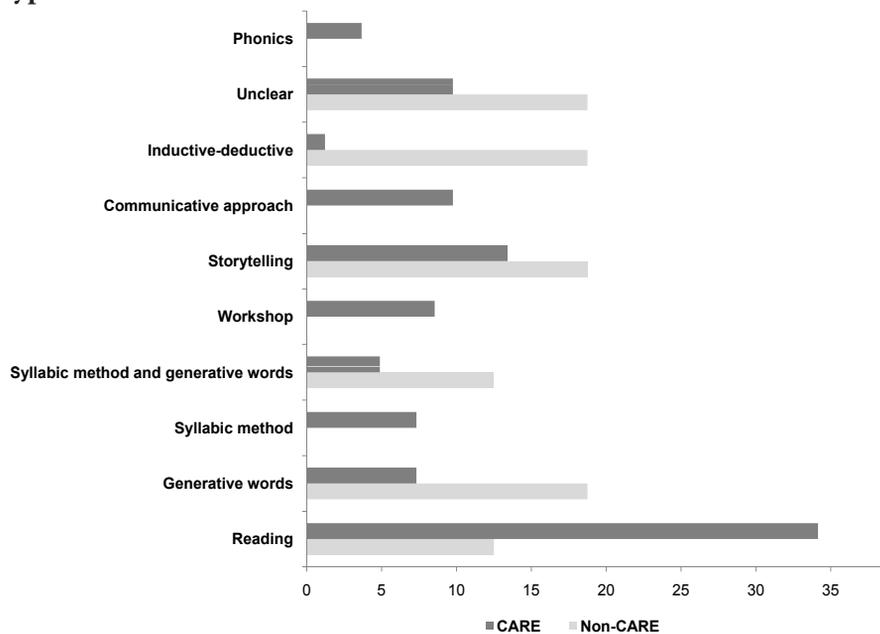
**Figure 7. Methods of teaching reading, by percentage of teacher use and school type**





CARE single- and multi-grade teachers tended to use different methods in their classrooms to teach reading. Forty-one percent of teachers in multi-grade classrooms said the method they used most often in class was to give children time to read. In single-grade classrooms, teachers employed a wider variety of methods. The most frequent methods were reading (24 percent), workshop (14 percent), and storytelling (19 percent), as shown in Figure 8.

**Figure 8. Methods of teaching reading, by percentage of teacher use and classroom type**



Beyond the specific teaching methods employed to teach reading and literacy skills, there were additional differences in pedagogy between single-grade and multi-grade classrooms. Teachers in multi-grade classrooms were more likely to ask students to work in a collaborative manner using active pedagogy strategies (75 percent of teachers in single-grade classrooms versus 95 percent of teachers in multi-grade classrooms), and to pose open-ended questions that promote previous knowledge utilization on the part of the students (83 percent versus 75 percent, respectively). Teachers in single-grade classrooms, in turn, were more likely to provide students with opportunities for meta-cognitive reasoning (67 percent of teacher in single-grade classrooms versus 43 percent of teachers in multi-grade classrooms), to provide feedback on student work (96 percent versus 74 percent of teachers, respectively), to promote higher order thinking (46 percent versus 15 percent, respectively), and to promote problem-solving activities (17 percent versus 1 percent, respectively).

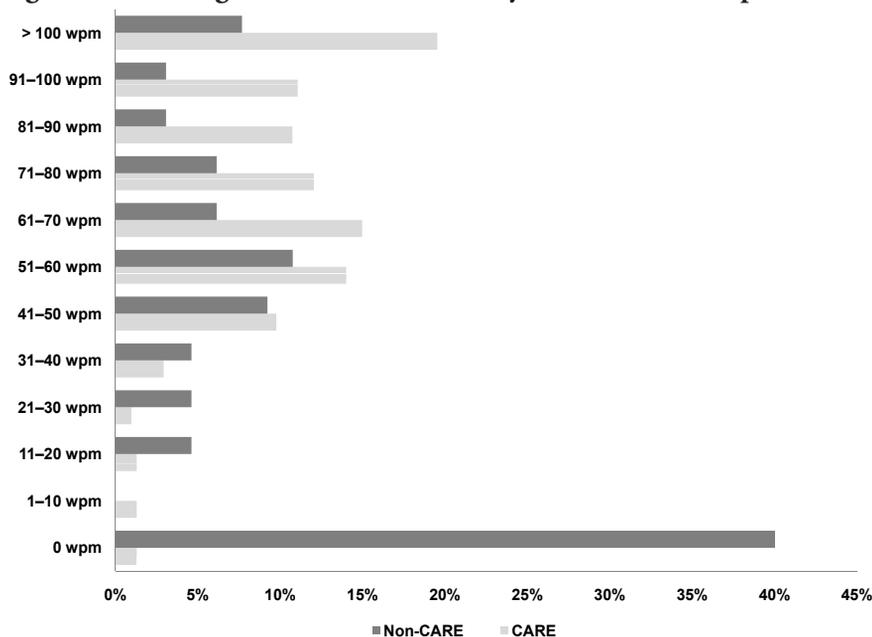
**OTL Factor 10: Grade 3 reading ability**

As explained previously, students were given a series of CAP and EGRA tests to evaluate their reading skills: 1) 10 CAP questions; 2) a letter recognition test; 3) a timed reading

passage; and 4) four comprehension questions. The CAP and letter recognition tests assess students pre-reading skills and are especially important measures for students who are still unable to read. Overall, students in CARE schools have mastered reading skills at a higher level than students in non-CARE schools. In the CAP portion of the test, students attending CARE schools could answer an average of 8.5 (out of a possible 10) questions correctly, with 77 percent of students answering between 9 and 10 of the questions correctly. The average CAP score for students in non-CARE schools was 8, only slightly lower. In the letter recognition test, students in CARE schools had a clear advantage over students in non-CARE schools. While the former could identify an average of 26 letters, the latter could only identify 18 ( $p < 0.001$ ), a fact that certainly might hinder a student’s ability to decode written text. These results show that on average, students in the CARE sample demonstrated mastery of pre-reading skills where students in the comparison schools were still building these skills.

In terms of reading fluency and comprehension, CARE students achieved satisfactory performance. On average, students in the CARE sample could read at a speed of 73 wpm. For Spanish language, the literature suggests that by Grade 3, children should be able to read at least at a speed of 60 wpm to achieve comprehension (Abadzi, 2007). The non-CARE schools did not demonstrate the same level of reading fluency results. More students in non-CARE schools than in CARE schools could not read a single word, (40 percent of the sample versus 1 percent, respectively), and the average reading speed for this group was 36 wpm. Moreover, the percentage of students who could read at a pace of 60 words or more per minute in non-CARE schools (26 percent) was much lower compared to CARE schools (68 percent). Figure 9 depicts the distribution of oral reading fluency scores for CARE vs. non-CARE students.

**Figure 9. Percentage of Grade 3 students, by number of words per minute read**

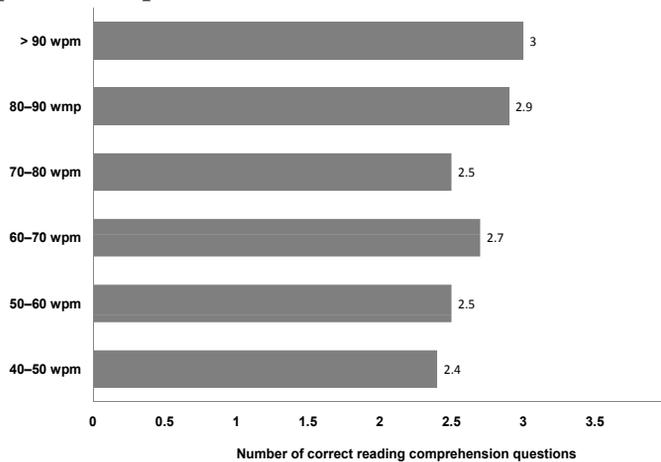




There were no significant differences between CARE and non-CARE schools in terms of their students’ decoding ability or the number of correct reading comprehension questions that students could answer correctly. In other words, the main differences between CARE and non-CARE schools seem to be in the number of students who can read at a minimum level. Once they achieved that threshold, there were no significant differences in CARE and non-CARE students’ reading skills.

Pre-reading test results for students unable to reach the threshold of 60 wpm were also examined. Students reading between 40 and 59 wpm on average identified 26 words correctly and answered 9 of 10 CAP questions correctly. Students reading 20 to 39 wpm identified 25 letters and answered an average of 8 CAP questions correctly. Those students reading less than 20 wpm were still able to answer 7 CAP questions and identify 23 letters. These results demonstrate that even though some students read at an extremely slow pace, they had at least some foundational knowledge of written materials and were acquainted with the alphabet, both of which are necessary tools for building reading fluency.

**Figure 10. Relationship between reading speed and number of correct reading comprehension questions**



The EGRA assessment also takes into account reading accuracy. Students who were able to read at least 40 wpm were asked to finish the entire paragraph in order to measure their ability to decode. These students read 97 percent of the words in the paragraph correctly, which suggests they had developed decoding skills. While the assessment of decoding skills serves as a measurement of reading fluency, it does not fully evaluate students’ ability to read for understanding. To evaluate students’ comprehension level, students who read at least 40 wpm were asked four reading comprehension questions. On average, students could answer correctly 2.8 questions out of the 4 questions. There was a medium positive correlation between average reading speed and number of reading comprehension questions answered correctly ( $r=0.26, p<0.001$ ), which indicated students who could read at a faster speed could answer a greater number of reading comprehension questions correctly (see Figure 10). While the majority of students in the sample could answer approximately three comprehension questions correctly, only 23 percent of the students were able to answer all four questions. This could suggest that

while the majority of students in the sample have mastered decoding, many students are still working on building their comprehension skills.

On average, for students in each words per minute category, those in non-CARE schools could correctly answer a slightly greater number of comprehension questions than students in CARE schools. However, in non-CARE schools only 31 out of the total sample of 69 were able to answer any questions as compared to 284 out of 318 in CARE schools. As Table 7 shows, a smaller percentage of students of the entire sample in non-CARE schools were actually able to read at rates above 40 wpm.

As discussed in the previous section, about 70 percent of the students in the sample of CARE schools in Honduras could read at an average speed of more than 60 wpm, a key threshold to achieving comprehension. However, Figure 9 demonstrates that variation still existed in reading fluency across students in the sample. The researchers considered individual-, classroom-, and school-level factors in order to explain some of the differences in reading fluency.

**Table 7: Relationship between reading speed and number of correct reading comprehension questions, by CARE and non-CARE schools**

	Correct Answers – CARE schools	% of total sample	Correct Answers – non- CARE schools	% of total sample
> 90 wpm	3	30%	4	10%
80 – 90 wpm	3	11%	3	3%
70 – 80 wpm	3	12%	2	7%
60 – 70 wpm	3	14%	3	6%
50 – 60 wpm	2	14%	3	9%
40 – 50 wpm	2	9%	3	10%

### Individual-level factors

Researchers collected individual student level data to analyze the relationship between variations in reading fluency and individual characteristics. One of the factors most often related to differences in student outcomes is poverty level. In this study, researchers measured poverty level using an index of unmet basic needs (UBN); an index that is commonly used in several countries in Latin America and the Caribbean (UNESCO, UN Statistics Division). Students in the sample varied little in terms of UBN, with 86 percent of the CARE students interviewed having at least one basic need unmet. This indicates that most students in this sample were coming from highly disadvantaged backgrounds. However, some differences still existed in student achievement according to their poverty level. Students without UBN could read, on average, eight more words per minute than students with UBN (79 wpm versus 71 wpm respectively), although this difference was only marginally statistically significant ( $p=0.07$ ).

Another factor that researchers commonly analyze when explaining variation in student outcomes is previous educational history (Barnett, Young & Schweinhart, 1998; Camilli, Vargis, Ryan & Barnett, 2010). During the school visits, researchers gathered

student-level data regarding repetition and access to preschool education. This data enabled the team to analyze the relationship between reading fluency and the students' educational experience. In the sample of CARE schools, students who had access to preschool education could read on average 19 more words per minute than students who did not attend preschool ( $p < 0.001$ ). On average, students who had attended preschool read 75 wpm, whereas students who had not attended preschool could read, on average, at a speed of only 56 wpm.

Researchers found that grade repetition had a negative effect on reading fluency. Students who had repeated one grade of primary school (including students who had repeated any grade at least once between Grades 1 and 3) read, on average, 12 wpm less than students who had never repeated a grade ( $p < 0.001$ ).

Family background factors, such as the availability of a literary environment or family support outside the school usually serve as strong predictors for difference in reading outcomes (Britto & Brooks-Gunn, 2007; Jordan, Snow & Porche, 2000; Bennett, Weigel & Martin, 2002). Most students in the sample of CARE schools reported that their parents read at home (78 percent for mothers and 80 percent for fathers). In addition, 87 percent of students in the sample reported that either their mother or their father reads to them. These students could read at an average speed of 74 wpm, whereas students who said their parents do not read to them read, on average, just 62 wpm, a difference of 12 wpm ( $p = 0.004$ ).

Researchers found that other individual-level factors including age, gender, and family size had no significant effect on student reading fluency.

### Classroom-level factors

In many of the CARE schools, teachers taught in multi-grade classrooms. Multi-grade schools differed in terms of how many classrooms and grades were combined. Some schools had only one teacher for six grades; others had between two and five teachers to cover all the classrooms. Each school also combined classrooms differently. Classes consisted of consecutive grades, early and late grades (Grade 1 and Grade 6), or groups that were based on enrollment size. In all multi-grade classrooms visited, students sat together according to grade level. Because the use of instructional time and approach to pedagogy might vary between multi-grade and single-grade classrooms, it is relevant to analyze the variation in student reading ability according to the type of classroom they attend.

Regarding reading fluency, students in CARE multi-grade classrooms performed better than students in CARE single-grade classrooms. Students in multi-grade classrooms read an average of 6 wpm more than students in single-grade classrooms ( $p = 0.06$ ). However, there was no significant difference between the two groups in terms of reading accuracy. Students in both single- and multi-grade classrooms could read, on average, 97 percent of the words in the paragraph correctly. Regarding reading comprehension, students in single-grade classrooms could answer 2.9 reading comprehension questions correctly; students in multi-grade classrooms could answer 2.7 reading comprehension questions ( $p = 0.05$ ). Students in multi-grade classrooms read at a faster pace than students in

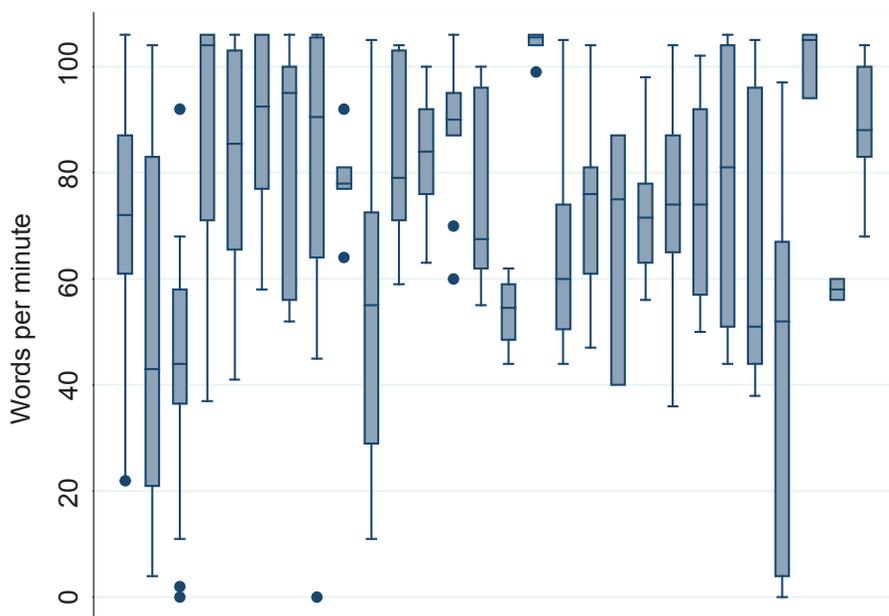
single-grade classrooms, although this does not mean that they were better able to comprehend what they read.

Multi-grade classrooms also showed a slightly larger variance in student reading scores than single-grade classrooms. Scores in single-grade classrooms clustered more tightly together, with a difference of 34 wpm between the top 25 percent of students and the bottom 25 percent. However, in multi-grade classrooms scores spread out more, with a difference of 42 wpm in multi-grade classrooms. While students in multi-grade classrooms read at a faster pace than students in single-grade classrooms, a wider variation existed among reading scores in multi-grade classrooms than in single-grade classrooms.

### School-level factors

In addition to individual or family characteristics, this study takes into account what factors at the school level might have an effect on students' opportunity to learn and thus their reading abilities. As Figure 11 shows, while there is variation in student reading fluency within each individual school, there is also a considerable amount of difference between schools. In fact, the intra-class correlation is 0.27 for the sample of CARE schools, a number that is relatively high as compared to those found in other studies in the education field (Hedges & Hedberg, 2007). This suggests that differences in student reading fluency might be explained by some school-level factors, a number of which have been analyzed in this study using the OTL index.

**Figure 11. Intra-class and between-school variance in student reading fluency in CARE schools**



Note: Intra-class correlation measures proportion of the variability in student reading fluency that is caused by differences between schools rather than differences between students inside schools. A very low intra-class correlation (close to zero) suggests students within a school behave fairly independently from one another with regard to reading fluency. A very high intra-class correlation (close to 1) suggests differences in student achievement can be better explained by school-level factors than by individual-level factors.



**OTL Factor 11: Class size**

Researchers collected class size information from school records and triangulated this with information gathered from teachers during interviews. In this sample of CARE schools, class size varied from 14 to 45 students. The average class size varied slightly depending on grade level. As Table 8 shows, non-CARE schools had an average class size larger than CARE schools, with the total variation in class size ranging from 16 to 49 students.

The team found no significant differences in total class size between schools with single-grade and multi-grade classrooms. In addition, no significant correlation was found between class size and student reading fluency. Table 8 shows the average class size for each grade and type of school.

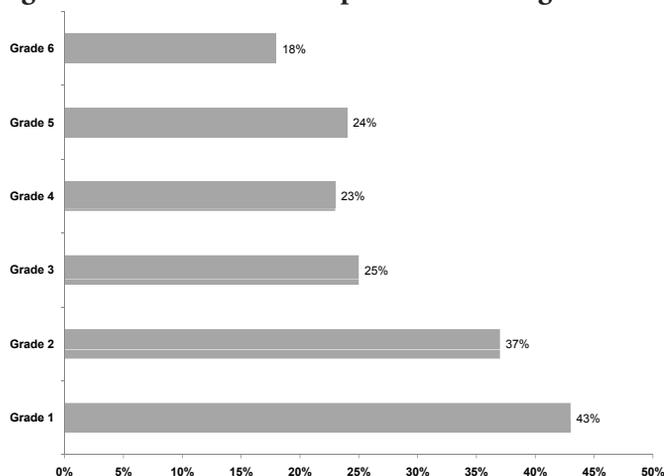
**Table 8. Average class size by grade and type of school**

	CARE, Single-grade classrooms	CARE, Multi-grade classrooms	Non-CARE schools
Grade 1	25	24.27	28
Grade 2	23.6	24.5	30
Grade 3	27.2	26.27	32

Class size is relevant as an OTL factor because it acts as a proxy for the time a teacher can provide to his or her students. In multi-grade classrooms, the teacher must simultaneously engage students who are at different grade levels, which means the organization of classroom activities is necessarily different from the one found in single-grade classrooms. Because it might be more difficult for the teacher to assign or lead an activity that all students can follow, he or she might need to deviate from traditional teacher-centered methods of instruction and often must divide his or her time among the different grade level groups within the classroom. Each student in a multi-grade classroom may therefore receives less direct attention than in a single-grade classroom. This is indeed what the research team found during the classroom observations. In multi-grade classrooms, each observation was coded so as to determine what grade level group the teacher was working with at the time. These codes were subsequently averaged across all observations, which enabled the researchers to estimate the amount of time teachers spent with each grade level in multi-grade classrooms.

As shown in Figure 12, teachers in the sample of multi-grade schools tended to spend more time with Grade 1 students than any other grade level. During classroom visits, the team often observed teachers spending the class period interacting with the lower grade(s) in the classroom and leaving students in higher grade(s) to do exercises from textbooks or wait for further instruction.

**Figure 12. Time the teacher spends with each grade level in multi-grade classrooms**



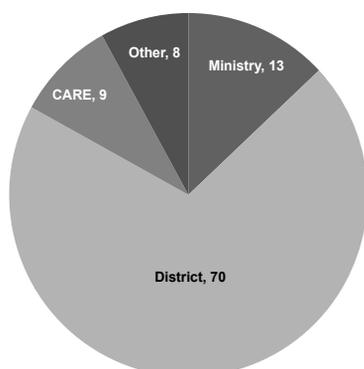
Note: The total proportion of time is greater than 1, since most classrooms did not have all the grade levels.

### *OTL Factor 12: School support*

CARE implements a variety of interventions to support schools and works with principals and teachers to ensure schools receive the specific support needed. The most commonly noted interventions received by schools in the sample included: provision of textbooks, notebooks, and other school supplies; teacher training activities; and help organizing school government structures and parent associations.

More than half of the schools in the CARE sample (54 percent) received at least one visit from some educational support staff during the year in which data collection took place. Most of these visits were conducted by personnel from the Ministry of Education or the local district education director (83 percent), while only 9 percent of these visits were from CARE staff (see Figure 13). Given that CARE schools are located in very rural areas, it is relevant to note that at the time of the visit, a large percentage of schools had already been visited by someone from the local or national education sector.

**Figure 13. School support visits by entity**





About 65 percent of the support visits received by CARE schools involved classroom observations. Seventeen percent of the visits involved individual meetings with the teachers and 43 percent involved group meetings with the teachers. According to the principals' interviews, most of these group meetings were intended to provide recommendations and evaluate the teachers' work. Local education officials also came to communicate important information from the Ministry of Education, review school records, and check on teacher and student attendance.

School support, however, is not limited to personnel external to the school. Principals also provide pedagogic support and serve as an important resource for teachers. In CARE schools, 28 percent of teachers said the school principal visited their class at least once a week. In addition, 50 percent of the teachers said their classroom plans were monitored daily (5 percent) or weekly (45 percent). In multi-grade schools, teachers also filled the role of principal and often said it was a challenge to attend both to their classroom and visit other teachers in the school.

Although comparison schools do not receive support from CARE, they do get support from the government. In non-CARE schools, 66 percent of principals said they had been visited at least once during the year that data collection took place, which was actually a higher percentage than in CARE schools. Personnel from the government performed all support visits and were either from the Ministry of Education (25 percent), or from the local district education director (75 percent).

Similarly to the case of CARE schools, about 75 percent of the support visits received by the schools during the year data collection took place involved classroom observations. Of the visits to comparison schools, 50 percent involved individual meetings with the teachers and 25 percent involved group meetings with the teachers.

## Conclusions and Policy Implications

While national and international organizations and governments working in education might strive toward the same outcome of improving student learning, not every agency targets the same inputs to reach this goal. In this study, EQUIP2 argues that in order to improve student learning children must first be guaranteed basic opportunities to learn. Ensuring that schools are open and teachers and students are present will support the impact of interventions at a higher level.

This study set out to answer three basic questions:

- How well do schools provide opportunity to learn?
- How does actual opportunity to learn compare to potential opportunity to learn?
- How does opportunity to learn vary across schools?

Often, the greatest challenge schools face is ensuring students are provided the opportunities necessary to learn. In this study, the researchers found that schools varied considerably in terms of the number of days they were open, how regularly teachers attended, the frequency and length of breaks provided throughout the school day, and

the availability of teacher and student materials. Schools also varied according to the time students spent on task within the classroom and, between multi- and single-grade classrooms, the types of activities in which students were more often engaged.

The results of the EGRA and CAP exams suggest the majority of students in CARE schools have developed adequate reading skills by the Grade 3. These students demonstrate strong pre-reading skills and most are able to read and comprehend text at a level appropriate to their grade. Comprehension proved to be one of the bigger challenges for students, with only 25 percent of children able to answer all the questions they were asked about the text. The range in reading abilities among CARE students in the same classroom should also be highlighted. While all students learn to read at a different pace, it is important that teachers are aware of who is struggling in their classroom and work to ensure the student does not fall behind. This is especially important in multi-grade classrooms where students spend a significant portion of the class working and reading independently.

There was a greater range within the sample in terms of reading abilities in non-CARE schools. Children fell into two categories: those who can versus those who cannot read. Students who were able to decode text managed to do so with a relatively similar level of fluency and comprehension as students in CARE schools. However, a greater proportion of students in comparison schools (40 percent of the sample) were unable to read a single word.

Given the small sample of schools, the researchers were unable to determine a significant relationship between the OTL factors measured in this study and students' learning outcomes. However, variations documented in some of the variables point to areas on which schools might want to focus. For example, the variation in time spent engaged in reading activities aligns with an interesting pattern in reading outcome data. Overall, students in CARE schools were observed more often reading silently or aloud, which might explain some of the difference in reading scores between CARE and non-CARE schools. Within CARE schools, students in multi-grade classrooms were more often engaged in reading activities than those in single-grade classrooms. This additional time spent reading might account for the difference in reading speeds between the two groups. The researchers did find a number of variables to be related to learning outcomes at the student level. Attendance of preschool and parents who engage students in reading activities were both positively related to students' reading scores.

The findings uncovered in this study point to a variety of interventions schools can take to ensure students are provided with the learning opportunities necessary to build reading skills and successfully complete their education.

### *Secure preschool opportunities*

As the data from this and other studies shows, providing children with a quality preschool education can have a positive impact on their learning in subsequent years. In this sample, 86 percent of CARE students and 87 percent of students in comparison schools attended preschool. In most of the schools visited by the research team,



preschool teachers were volunteers and often classes were conducted at hours different than those of the rest of the school. While this study did not collect data to determine why students did not attend, a structured assessment of preschools and student attendance would help CARE and other education officials to identify and address issues surrounding preschool attendance.

### *Strengthen parents' participation in student learning*

Students in this sample whose parents read to them tended to have stronger decoding skills than students who were not read to at home. Teachers need to increase their communication with parents and encourage them to assist their children in the learning process at home. Parents often believe it is the school's responsibility to provide their child with an education and do not realize how essential their own role is. Because schools tend to close their doors right at the end of the school days, parents do not often have the opportunity to speak with teachers and receive feedback on their children's progress. Time outside of the school day needs to be available for parents to meet with teachers and receive guidance on how best to support their children's learning. As part of CARE's current initiatives in Guajiquero, there is a great focus on mobilizing communities, schools, and parents in the effort to secure quality education for children in the area. Part of this initiative could include a campaign to strengthen parent-teacher relationships and help parents learn how they can specifically support the development of their children's literacy skills. This is particularly important for families where the parents themselves cannot read.

### *Provide a structured approach to learning*

While Honduras has a specific language arts curriculum, teachers approach the teaching of reading in many different ways. Teachers cited nine different methods for teaching reading. One possible explanation for the multitude of approaches is that Honduras has changed its curriculum numerous times over the past years. The implementation of a specific reading curriculum with which teachers are comfortable using is essential to ensuring students continue to develop reading skills. It is also important that teachers have the opportunity to develop their own skills around the teaching of reading and are provided support through that process. Even though most students in this sample of third graders are able to decode, teachers need to focus on increasing reading comprehension, fluency, and building vocabulary. Teachers also need to be aware of their students' reading level. Training teachers to systematically test their children's reading levels throughout the school year would help ensure that struggling students are not being left behind.

### *Increase time spent on reading*

The majority of observations were conducted in language arts classes, however, the activity most often observed in both CARE and non-CARE schools was seatwork (45 and 41 percent, respectively). More time needs to be dedicated to reading activities, especially activities guided by teachers. Training specific to the type of classroom, whether multi- or single-grade, needs to be provided to teachers to help them structure activities to build students' reading and comprehension skills. For students in multi-

grade classrooms, comprehension skills are particularly important to master. Children in these classrooms spend more time practicing lessons on their own out of textbooks as they move up in grades, and therefore must be able to read and understand in order to learn.

### ***Ensure delivery of teacher guides and student textbooks and materials***

Only five schools in the entire sample had language arts books available for all of the students observed. Teachers said it had been two to three years since they received new books for their students and were using what was left over from years past. During the data collection process, researchers visited the district education office and saw that new books had arrived for students yet they were not to be distributed until June, halfway through the school year. Teaching guides were also scarce, and many teachers used photocopied teaching guides. Without proper materials, teachers face great challenges as they try to follow the national curriculum. The lack of textbooks in multi-grade classrooms is especially problematic because teachers must leave students to work on their own as they pass to other grade levels. Honduras must ensure teachers and students receive materials on time and that they are useful resources for the classroom. As part of this process, it is necessary that schools learn to advocate for themselves and voice their needs to local governments. CARE's support to the region of Guajiquiro has included helping schools to create student councils and working with teachers and principals to increase student participation and leadership. Expanding on this work, CARE could help student governments advocate for their schools with regional governments to demand timely delivery of school learning materials. CARE could also support the coordination of school governments throughout Guajiquiro to help schools collectively communicate their shared needs to the government.

### ***Ensuring the school calendar is adjusted to local needs***

Schools varied widely in terms of the date that they actually began classes for students and how often they had closed during the school year. Teachers in some areas said the late start to class was caused by teacher training sessions that took place at the beginning of the year. Schools in rural areas also tend to close one day a month (a total of 10 days of school closings) so teachers could pick up their pay checks. Adjustments in the school calendar must be made to account for time lost because of trainings and to fit the needs of teachers and the community. Working with the local community and district education officials, schools need to ensure that classes are held for the total 200 days mandated by the government.

### ***Maximizing classroom time***

The greatest loss of time documented in this study was the time students lost while in class. As seen from the data on time-on-task, the strongest determinant of whether students are on task is whether the teacher is on task. Student involvement in reading activities all but disappears when teachers are off task and more time is devoted to seatwork and copying. Students in multi-grade classrooms were often observed wasting time waiting for further instruction from the teacher as he or she worked with another group of students. Multi-grade teachers need to be provided specific training on

how to ensure classroom time is maximized for all students. Teachers in single-grade classrooms need instruction on how to move away from seatwork and copying and to begin to integrate more interactive teacher techniques into their classrooms. In this case, examples from Active Schools in Colombia and Peru might help teachers to increase student engagement time in their classrooms.

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