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Evaluation of *Leer Juntos, Aprender Juntos* Early-Grade Reading Intervention in Peru and Guatemala

Summary Report



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DISCLAIMER

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

SUMMARY

The USAID-funded *Leer Juntos, Aprender Juntos* program was implemented in two countries, Guatemala and Peru, and evaluated using a randomized controlled trial design. This report summarizes the evaluation findings across the two countries and explores conclusions and lessons learned. The country-specific findings and conclusions are reported separately (Lugo-Gil et al. 2021a; Lugo-Gil et al. 2021b).

An approach to early-grade reading instruction in communities with linguistically diverse populations, *Leer Juntos, Aprender Juntos* was implemented in Guatemala and Peru with funding from the U.S. Agency for International Development (USAID). *Leer Juntos, Aprender Juntos* included two components which we evaluated separately: teacher supports and community activities. The evaluation was a randomized controlled trial, where investigators assigned nearly 300 eligible schools at random to three groups, implementing one component of *Leer Juntos*, both components, or neither. The intervention was implemented by Save the Children in the Quechua-speaking region of Apurímac of the Peruvian Andes and the K'iche'-speaking region (El Quiché) of the Guatemalan highlands.

We did not find impacts of the community-focused component of the program in either country, but the in-class component had impacts on some the reading skills outcomes in one of the two countries (Peru), largely for girls. We found no impacts of the in-class component in Guatemala.

A. INTRODUCTION

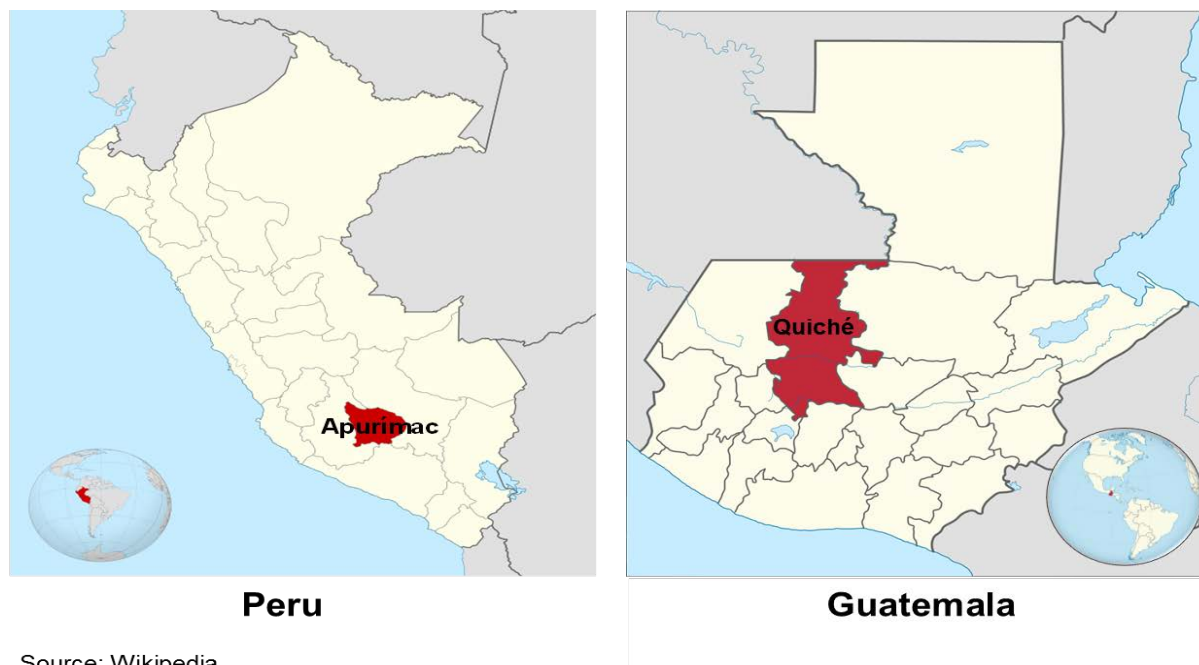
When children learn a different language at home than the nation's dominant language taught in school, it can be difficult to become a fluent reader, especially in remote and impoverished areas where children have little exposure to written language, reading, and the language of instruction outside school. Reading experts have argued that the way to address this problem is through intentional instruction of five key literacy skills that are thought to be the building blocks of reading: alphabet knowledge, phonological awareness, vocabulary, fluency, and comprehension (National Reading Panel 2000). For areas with extensive language diversity, experts sought to implement these practices in a way that acknowledges the mother tongue spoken in the community, by providing both in-class support for teachers, as well as literacy-focused activities in the community. Furthermore, children require sufficient time on task to learn, and models aimed at increasing instruction time in the classroom and reading practice time at home (such as community engagement models, volunteer training to teach low-performing students, and remediation provided by locally trained teachers) have shown promise (Banerjee et al. 2010, 2007; Bruns and Luque 2014).

Studies have demonstrated that programs involving instructional practices and other supports in children's mother tongue improve academic outcomes in some developing countries (Chesterfield and Abreu-Combs 2011; Crouch et al. 2009; Friedlander and Goldenberg 2016; Hernandez-Zavala et al. 2006; Patrinos and Velez 2009; Piper et al. 2016). However, no studies based on a rigorous evaluation design have been implemented in the Latin American and Caribbean (LAC) region. Moreover, existing studies have not focused on assessing the effectiveness of comprehensive reading programs that incorporate both transitional instructional

approaches in the classroom and mother tongue supports for building reading abilities outside the classroom. Besides the fact that such models have not been rigorously evaluated in the LAC region, their cost-effectiveness is unknown.

To address this need for rigorous evidence, the U.S. Agency for International Development (USAID) contracted with Mathematica Policy Research as its independent evaluator to design and implement rigorous evaluations of the agency’s investments in reading. The first evaluation funded under this contract was the nearly five-year evaluation of the USAID-funded *Leer Juntos, Aprender Juntos* program—an approach to early-grade reading instruction in LAC communities with linguistically diverse populations. Save the Children developed *Leer Juntos, Aprender Juntos* based on its Literacy Boost model, which includes teacher training and community involvement, and implemented the program in a K’iche’-speaking region (El Quiché) of Guatemala and the Quechua-speaking Apurímac region of Peru (see Figure 1). Successfully implemented in 14 countries around the world, Literacy Boost had shown promise for spurring significant improvements in children’s reading but had not previously been rigorously evaluated in contrast to a counterfactual. Mathematica worked with Save the Children to design a rigorous evaluation of *Leer Juntos, Aprender Juntos* in both Guatemala and Peru. This report summarizes the findings, conclusions, and recommendations across the two countries. Detailed descriptions of the evaluation data, methods, and country-specific findings can be found in the reports for Peru (Lugo-Gil et al. 2021a) and Guatemala (Lugo-Gil et al. 2021b).

Figure 1. *Leer Juntos, Aprender Juntos* in Peru and Guatemala



B. *LEER JUNTOS, APRENDER JUNTOS*: A PROGRAM TO SUPPORT EARLY GRADE READING IN GUATEMALA AND PERU

The *Leer Juntos, Aprender Juntos* intervention has two main components: the in-school component and the community action component.

In-school component: teacher training and coaching. The goal of this component is to train and coach early primary grade teachers to teach reading to children who may not have exposure to the official or societal language (in the case of Peru and Guatemala, Spanish). This component entails six main activities intended to increase class time on reading instruction and improve the quality of reading instruction:

- Training trainers in reading instruction techniques in both Spanish and mother tongue
- Training teachers in the five core skills of reading: alphabet knowledge, phonological awareness, vocabulary, fluency, and comprehension
- Creating materials for print-rich classrooms in both Spanish and mother tongue (Quechua in Peru and K'iche' in Guatemala)
- Mentoring and coaching teachers in reading instruction practices
- Training teachers in conducting formative assessments to track progress of children's reading skills
- Guiding teachers to incorporate five core skills of reading and related reading instruction techniques into daily school activities

Teacher training consisted of nine modules covering a range of reading-instruction topics, including introduction to reading acquisition and instruction in the early primary grades, use of formative reading assessments, and five core reading skills. Following the teacher training, the program's technical staff (coaches) visited classrooms at least once (in most cases, two or three times) every three months. These visits aimed to support teachers by observing their work, demonstrating teaching techniques, and suggesting improvements in the use of reading instruction strategies. Coaches also moderated teacher learning groups to strengthen teachers' practical application of topics discussed in the training workshops, which included conducting activities to develop the five core reading skills, designing lesson plans incorporating core reading skills, and planning strategies to develop literacy skills in students' mother tongue. The training and coaches did not dictate or favor one language of instruction over the other.

Community action component. This component aims to strengthen parental and community involvement in building children's reading abilities and increasing their opportunities to practice reading outside regular class time. This component was intended to be delivered primarily by trained community volunteers and included engaging group activities. The community action component included the following main activities:

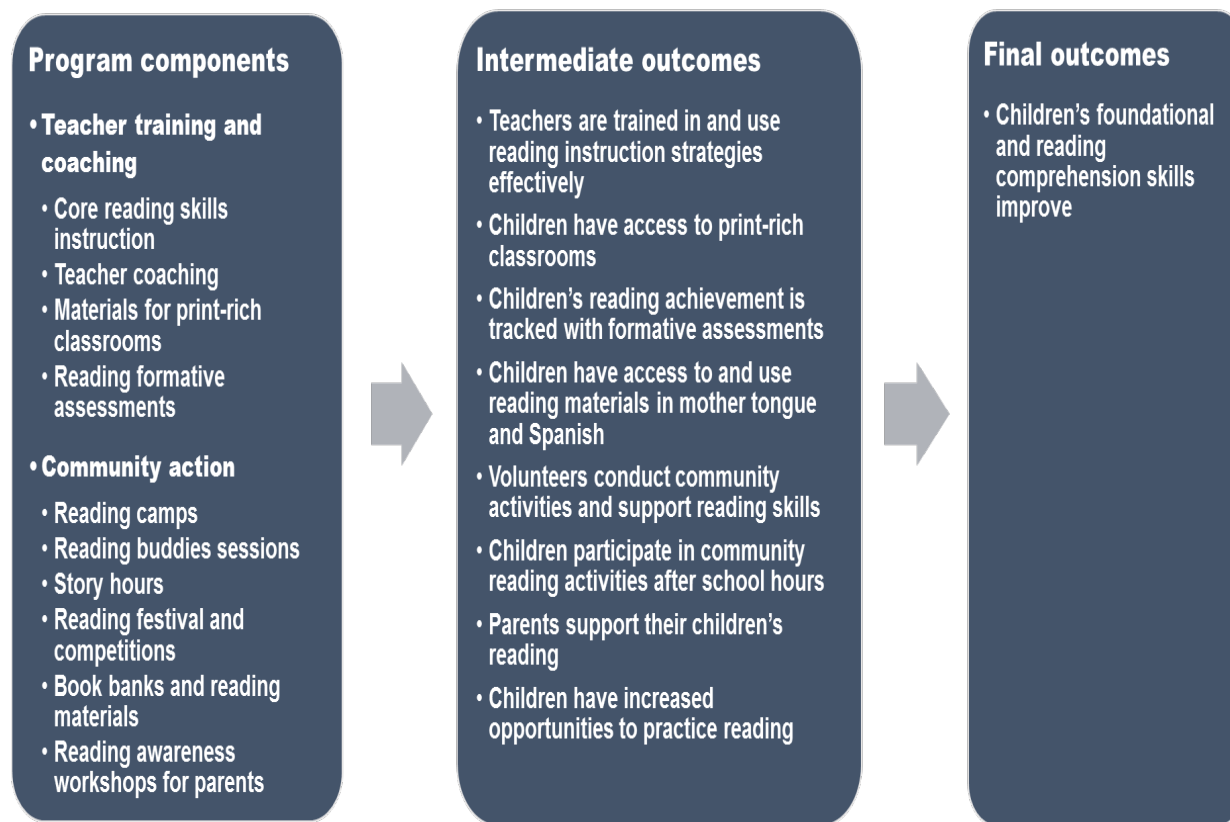
- Creating printed materials in the children's mother tongue, Spanish, or both, to build portable libraries known as book banks
- Promoting the use of book banks among community members

- Conducting reading activities in the community such as story hours, reading camps, and reading festivals or fairs
- Coordinating peer assistance through reading buddies
- Conducting school–community accountability meetings and reading awareness workshops with parents and community members

Leer Juntos, Aprender Juntos logic framework.

Leer Juntos, Aprender Juntos is designed to influence intermediate outcomes (such as teachers’ instructional practices, access to and use of instructional materials in mother tongue and in Spanish, and participation in reading activities after school hours, among others), and the final outcomes, children’s improved foundational and reading comprehension skills. These final outcomes are the focus of this brief. See Figure 2 for an illustration of the program’s logic framework. For more detailed information on program effects on intermediate and final outcomes, see the final reports of the evaluation in Peru (Lugo-Gil et al. 2021a) and Guatemala (Lugo-Gil et al. 2021b).

Figure 2. *Leer Juntos, Aprender Juntos* logic framework



Source: *Leer Juntos, Aprender Juntos* Performance Management Plan (Save the Children 2013).

C. ABOUT THE EVALUATION

1. Evaluation questions and evaluation design

The evaluation aimed to answer the following three questions:

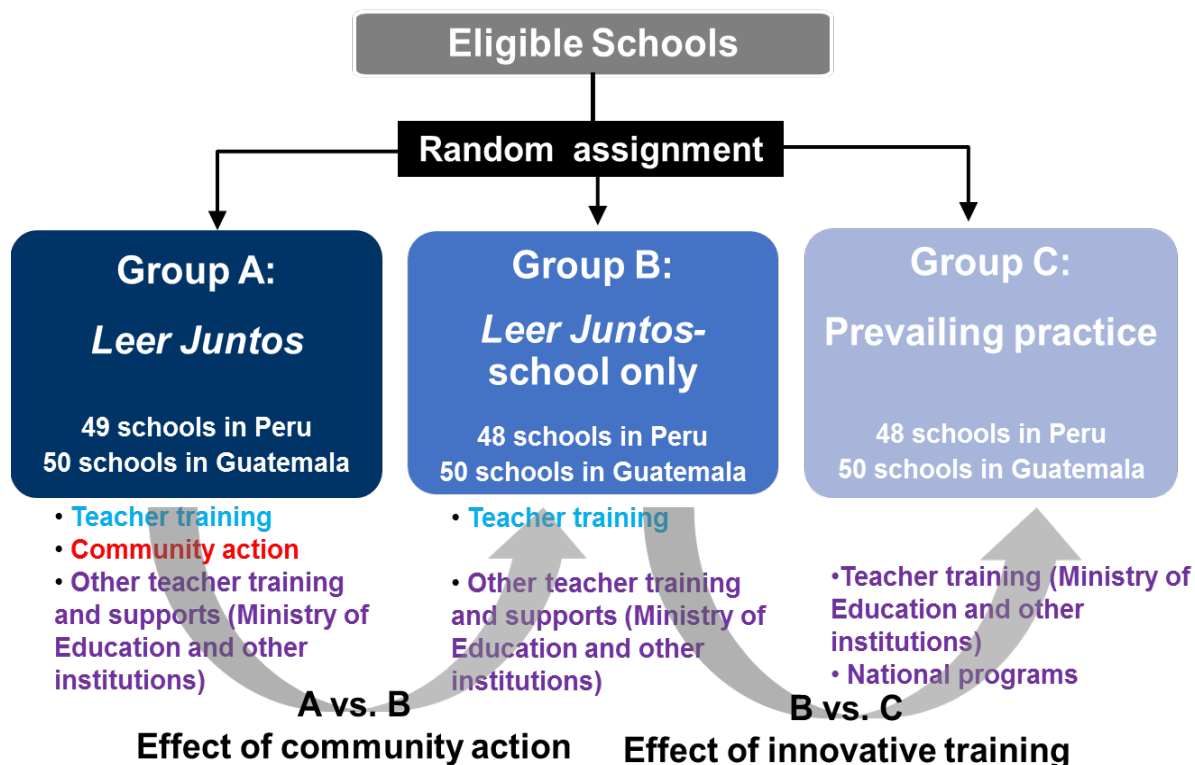
1. Were the program components implemented as intended? This question relates to whether each program component's services were offered as originally intended, whether participants took part, and whether these program components had intermediate impacts on teaching and the availability and use of reading materials. It also considers any barriers or challenges to effective implementation.
2. What is the impact of the teacher training and support component of *Leer Juntos, Aprender Juntos* on early-grade reading and other outcomes relative to prevailing practice?
3. What is the impact of the community action component of *Leer Juntos, Aprender Juntos* on early-grade reading and other outcomes relative to an intervention that does not have the community action component?

To answer these questions, we conducted a randomized controlled trial (Figure 3). Nearly 300 eligible schools were randomly assigned to one of three treatment groups:

- Group A: these schools implemented both components (in-school and community action) of *Leer Juntos, Aprender Juntos*.
- Group B: these schools implemented only the in-school component of the program.
- Group C: these schools did not implement any of the program components. We refer to Group C schools as the prevailing practice.

Data sources included: quantitative and qualitative data collected through school observations, classroom observations, teacher surveys, household surveys, and child reading assessments as well as qualitative interviews and focus group data from program implementers, teachers, and parents.

Figure 3. *Leer Juntos, Aprender Juntos* evaluation design



Source: *Leer Juntos, Aprender Juntos* evaluation plan (Glazerman et al. 2013).

Random assignment ensures that the groups are equivalent on average, and the only systematic differences between the schools are whether they had the opportunity to implement *Leer Juntos, Aprender Juntos*, and whether it was the in-school only component or both components. Thus the differences in outcomes can be attributed to the programs and not to other, confounding factors.

We recruited 145 schools in Peru and 150 schools in Guatemala. Within each school, we followed a group of children from 1st grade through the end of 3rd grade (1,074 children in Peru and 1,480 children in Guatemala), corresponding to about 2 to 2.5 years of exposure to the program (the timing of the endline data collection varied across the two countries due to various factors, including the timing of implementation roll-out and the other data collections (baseline and midline)). The implementation of *Leer Juntos, Aprender Juntos* began in May 2013 in Peru and Guatemala, and continued through December 2015 in Peru and March 2016 in Guatemala. The evaluation measured impacts of the program on student reading outcomes at the end of the third grade, by comparing reading outcomes of students in Group A with those of students in Group B (to estimate the impact of the community action component) and reading outcomes of students in Group B with outcomes of students in Group C (to estimate the impact of the in-school component). For more details on the evaluation design and sample selection in Guatemala and Peru, see the final reports of the evaluation (Lugo-Gil et al. 2021b; Lugo-Gil et al. 2021a), where we also show that the three groups were similar at baseline in relevant characteristics, such as baseline measures of emergent literacy skills, and that we took into account baseline measures of early grade reading when estimating impacts at the end of the

evaluation. Baseline and endline learning assessment instruments were tailored to the relevant grade-level.

2. How we measured early-grade reading skills

This section summarizes the reading skills we assessed in the third grade of program implementation to examine the impacts of the *Leer Juntos, Aprender Juntos* program. For more details on the assessments we administered to children and the methods we used to estimate the impacts of the program, see the baseline and final reports for Guatemala (Lugo Gil et al. 2016a; Lugo-Gil et al. 2021b) and Peru (Lugo Gil et al. 2016b; Lugo-Gil et al. 2021a). We assessed children’s reading skills with three tasks administered at the end of the evaluation, in the third year of program implementation: (1) pseudo-word reading (decoding), (2) reading fluency, and (3) reading comprehension.

These three tasks were adapted for Peru and Guatemala following the guidelines of the Early Grade Reading Assessment (EGRA) Toolkit (RTI International 2015). In Peru, we drew passages for the fluency and reading comprehension tasks from the *Young Lives* study (*Niños del Milenio*; Guerrero et al. 2012) and from the *Evaluaciones Censales de Estudiantes* (ECE; Ministerio de Educación 2009). In Guatemala, we identified reading passages for the fluency and reading comprehension tasks from materials provided by Proyecto Alianzas in Guatemala (USAID and Juárez and Asociados 2013) and from grade-level reading materials from the Ministry of Education in Guatemala (DIGEDUCA 2014a, 2014b).

In the two countries, all children were assessed in Spanish at endline, as most of the teachers in the evaluation used Spanish as the language of reading instruction. We measured decoding and fluency skills, because they are precursors to reading comprehension—that is, children must be able to translate a printed word into sound (decoding skills) and to read connected text rapidly, accurately, and with expression (fluency skills), before they can achieve reading comprehension (Landscape Report on Early Grade Literacy, USAID 2016; National Reading Panel 2000).

In the pseudo-word decoding task, children read aloud as many pseudo-words as they can within 60 seconds, with a maximum of 50 pseudo-words. Pseudo-words are vowel-consonant combinations that follow Spanish phonological and spelling rules but are not actual meaningful words. We used the number of pseudo-words read or decoded correctly to examine program effects.

In the reading fluency task, children read aloud as many words as possible in 60 seconds from a short story (154 words in Peru and 112 words in Guatemala). Stories were targeted to the grade level and drawn from existing local assessments. We used the number of words read correctly in 60 seconds to examine the effects of the program.

From the decoding and reading fluency tasks, we constructed “accuracy” scores. We calculated these scores by dividing the number of correctly read words by the total number of words that the child read (correctly or incorrectly). We also used the decoding and fluency accuracy scores to examine program effects. Higher decoding and fluency accuracy scores suggest that children are more deliberate in translating print into sound (decoding or reading pseudo-words) and in reading words with fluency with a time limit, respectively.

In the reading comprehension task, we asked children to read three passages to themselves. Children received up to four minutes to finish reading a passage. Lookbacks were not allowed so as to not give advantage to the children who asked for the lookback over those who did not ask. After a child finished reading each passage, he or she was asked to answer five questions about that passage. We constructed two variables from this task to examine program impacts on reading comprehension achievement: (1) the total number of correct answers in the task (up to 15), and (2) an indicator for whether the child correctly answered at least one of the questions in the task. The second construct is a dichotomous measure indicating whether the child demonstrates emergent reading comprehension skills.

D. FINDINGS

Below, we summarize the findings in response to each evaluation questions. The final reports of the evaluation (Lugo-Gil et al. 2021b; Lugo-Gil et al. 2021a) provide more details on the findings from each country.

1. Were the program components implemented as intended?

The program components were implemented as intended in Guatemala and Peru.

Perceptions of stakeholders in the two countries on the teacher training component suggested that teachers received the training and individualized coaching sessions largely as intended, and most were able to apply the programs' reading instruction strategies in their classrooms. Additionally, qualitative findings on the community action component in Guatemala and Peru indicated that the community activities were delivered in the school communities that were assigned to receive this component, although with some delays and challenges. For example, in Peru, the community action component started three months later than the in-school component. The program struggled with an insufficient number of volunteers to implement community activities, irregular attendance of volunteers, and high volunteer turnover, and there were challenges in recruiting and retaining volunteers who had the appropriate qualifications to lead the community component's activities. Also, take up of community action activities fluctuated throughout the school year as families experienced barriers to students' regular attendance to the community activities outside the usual school schedule. In Guatemala, there were barriers to children's and parents' participation in community activities—such as inclement weather and transportation costs—that could have depressed attendance at reading activities.

Teachers found the program approach to be helpful and feasible to apply in the classroom. Teachers in focus groups in Peru described the program's methodology and training approach as practical and feasible to apply in the classroom. They said they established positive and supportive relationships with program specialists. They also highlighted advantages of the *Leer Juntos, Aprender Juntos* training compared to trainings imparted by Ministry of Education. In Guatemala, the *Leer Juntos, Aprender Juntos* teaching strategies and pedagogic activities were particularly helpful for beginning teachers, as the program helped them transition from theory to practice. Also, teachers felt that program materials were helpful for classroom instruction and highlighted their longtime struggle with access to sufficient pedagogical materials for reading instruction. In many cases, teachers reported that they did not receive teaching materials from the Ministry of Education to use in their language and communication lessons, and they felt that the *Leer Juntos, Aprender Juntos* program filled that gap.

Some teachers found it difficult to incorporate reading instruction in mother tongue into their teaching practice. In Peru, interviews with program staff and focus groups with teachers revealed that incorporating mother tongue reading instruction was challenging both for program specialists and for teachers in treatment schools. Similarly, take-up of the program's reading-instruction strategies and activities in Guatemala was particularly challenging for teachers who lacked mother tongue skills, and for those who taught in multigrade classrooms.

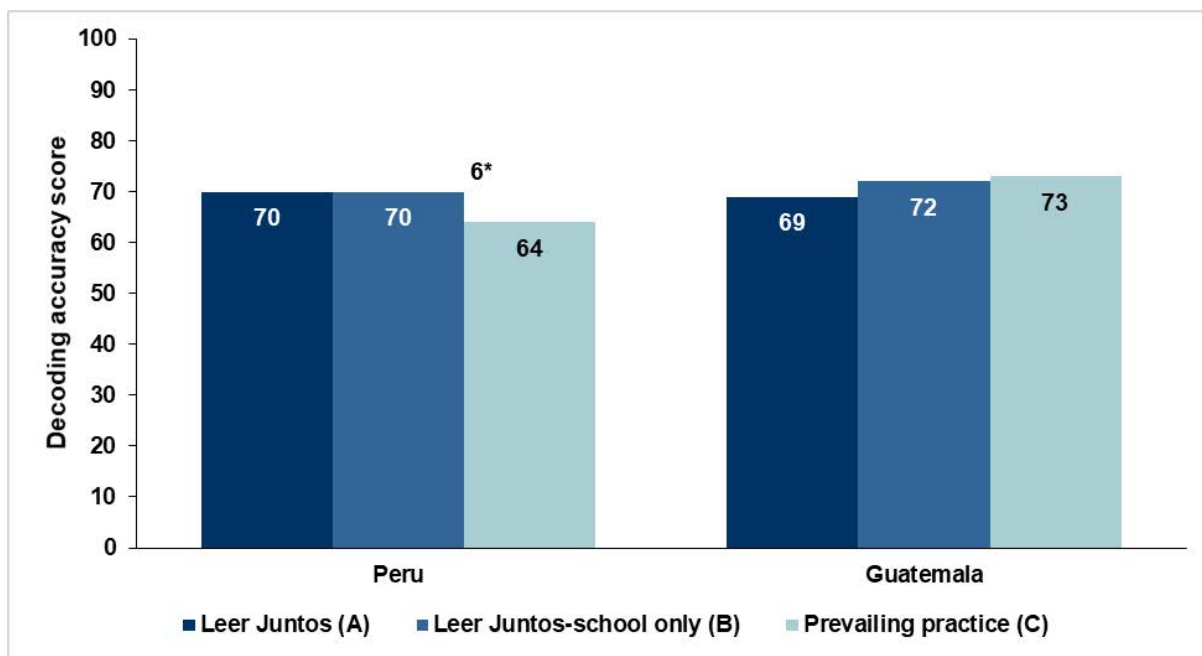
2. What is the impact of the teacher training and support component of *Leer Juntos, Aprender Juntos* on early-grade reading outcomes relative to prevailing practice?

In both Peru and Guatemala, schools that implemented the in-school component showed evidence of improved classroom environments, but not of improved classroom practices. Teacher survey and classroom observation data from Peru and Guatemala provide evidence of improved classroom environments in schools that implemented the in-school component (groups A and B). These schools provided greater exposure to materials that facilitate reading (such as complete alphabets and familiar words in Spanish and mother tongue that are visible to students) than schools assigned to implement prevailing practice. However, in the two countries we did not find a meaningful pattern of statistically significant program effects on instructional practices (such as teachers' use of instructional practices focused on teaching five foundational literacy skills [alphabet/letter knowledge, vocabulary, phonemics and phonological knowledge, fluency, and reading comprehension]), as reported by teachers or observed by evaluators.

The in-school component of *Leer Juntos, Aprender Juntos* had favorable impacts in Peru on some of the children's reading outcomes, but not others. This component had no impacts on any reading outcomes in Guatemala. In Peru, we found that the in-school component improved the accuracy with which children read pseudo-words (decoding accuracy) and regular words (fluency accuracy). Despite these impacts, the in-school component did not have statistically significant impacts on the number of words children were able to read (decoding and fluency) in Peru. In Guatemala, the in-school component did not have any positive, statistically significant impacts on the number of words children were able to read (decoding and fluency) or on the accuracy with which children read those words.

Positive impacts for Peru and null effects for Guatemala can be seen in Figures 4 and 5. These figures show, respectively, the average decoding accuracy and fluency accuracy scores (shown inside each bar) at the end of the evaluation's observation period. If both components were effective, we would expect the heights of each group of three bars to be descending from left to right, with asterisks next to the difference labels (shown above pairs of bars) indicating statistical significance. The figures show positive impacts on decoding and fluency accuracy in Peru, where children in the schools assigned to implement the in-school component (Group B), read six more pseudo-words or words correctly on average than the children in schools that did not implement any of the program components (the schools implementing the prevailing practice approach, or Group C). These differences were statistically significant. In Guatemala, the differences in average accuracy scores between Groups B and C were not statistically significant for either decoding or fluency.

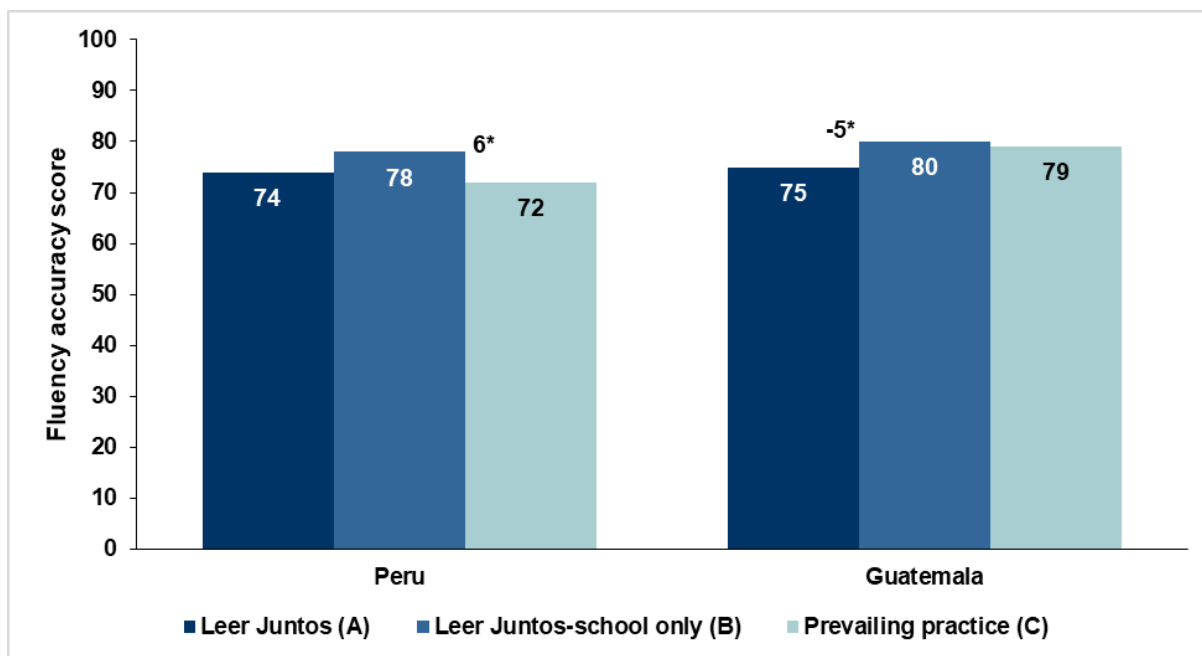
Figure 4. Positive impacts of in-school component on decoding accuracy in Peru but not in Guatemala



Source: *Leer Juntos, Aprender Juntos* Students' Reading Skills Assessment—Final Follow-ups 2015 and 2016.

* Difference in group means is statistically significant at the 0.05 level.

Figure 5. Positive impacts of in-school component on fluency accuracy in Peru but not in Guatemala

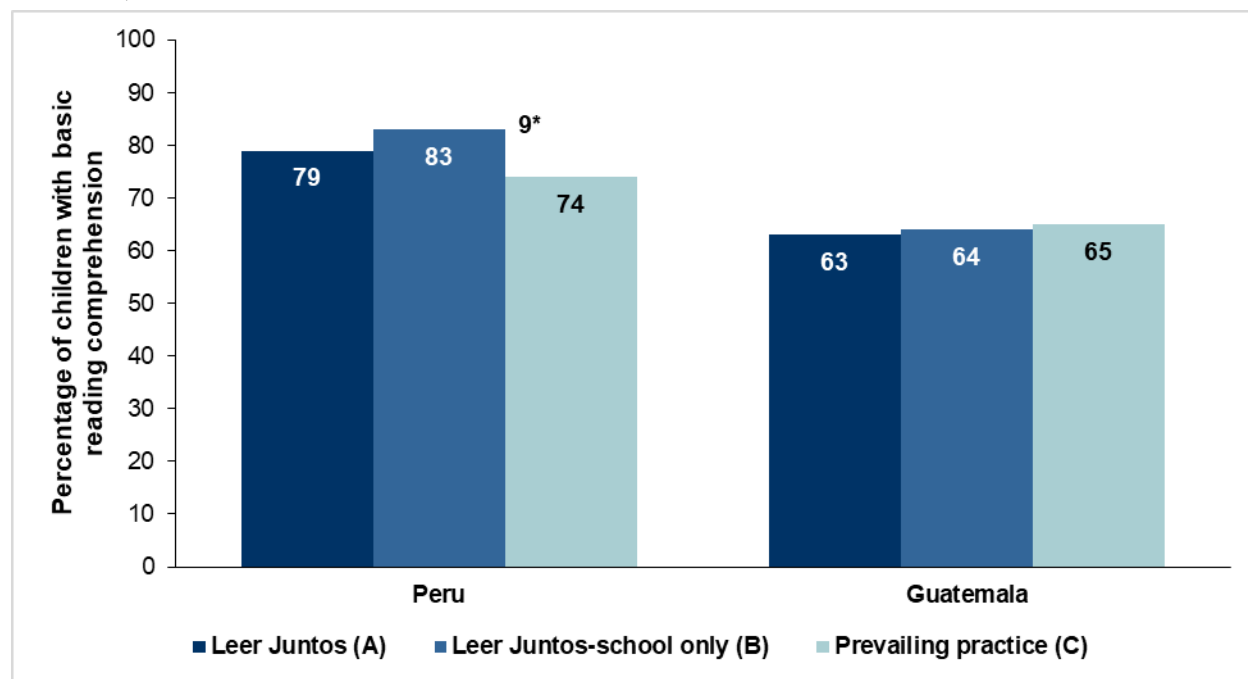


Source: *Leer Juntos, Aprender Juntos* Students' Reading Skills Assessment—Final Follow-ups 2015 and 2016.

* Difference in group means is statistically significant at the 0.05 level.

Reading comprehension results tell a similar story. In Peru, the in-school component did not have statistically significant impacts on the number of correct answers in the reading comprehension task, but it did increase the percentage of children who achieved basic reading comprehension skills. In Guatemala, the in-school component did not have impacts on any of the measures of reading comprehension achievement we examined. Figure 6 shows that the percentage of children who achieved basic reading comprehension skills is larger in Group B schools than in Group C schools in Peru, but in Guatemala the differences between treatment groups were not statistically significant.

Figure 6. Positive impacts of in-school component on reading comprehension in Peru, not in Guatemala



Source: *Leer Juntos, Aprender Juntos* Students' Reading Skills Assessment—Final Follow-ups 2015 and 2016.

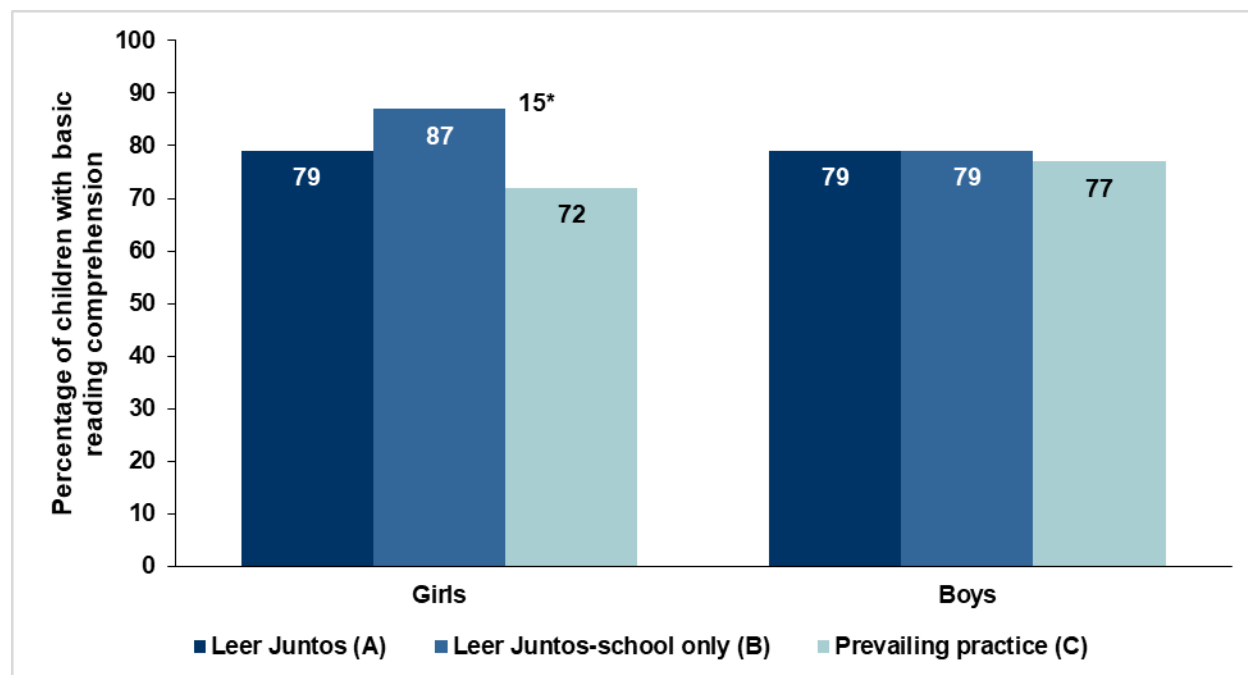
* Difference in group means is statistically significant at the 0.05 level.

Children in Peru and Guatemala had different oral comprehension skills in Spanish, the language of instruction. Students in Peru demonstrated a higher Spanish proficiency than did students in Guatemala. In both countries, most teachers were observed using Spanish during reading instruction, and program specialists expressed in interviews that teachers did not have adequate language skills in the students' mother tongue to deliver the reading instruction strategies taught by the program in the language that was most familiar to children. However, in Peru, despite the high prevalence of Quechua spoken at home, most students in the sample (92 percent) demonstrated proficiency in Spanish at baseline by passing an oral language screener and completing an assessment of emergent literacy skills in Spanish. In contrast, only about a third of the students in the Guatemala sample (32 percent) demonstrated proficiency in oral Spanish language skills at baseline.

The prevailing teacher practices in Guatemala and Peru provided very different contrasts to the in-school component. The experimental contrast between what the program trains teachers to do and what it is being compared with were very different in the two countries. In Peru, the prevailing practice approach promoted by the Ministry of Education emphasizes communication and the use of text to help students understand, speak, read, and write (“communicative–textual”). This is more distinct from the *Leer Juntos, Aprender Juntos* approach, which focuses on deliberate instruction of the five key skills of reading. In contrast, in Guatemala, the Ministry of Education’s approach to early-grade reading instruction emphasizes instruction on foundational reading skills leading to reading fluency and reading comprehension, which is similar to the approach of *Leer Juntos, Aprender Juntos*. According to the standards of the national curriculum, students are expected to learn to decode familiar and unfamiliar words in 1st grade, develop reading fluency in 2nd grade, and read with comprehension and use reading as a tool to acquire new knowledge in 3rd grade. Therefore, in Guatemala, there may not have been a meaningful contrast between the prevailing approach to reading instruction and the *Leer Juntos, Aprender Juntos* program’s approach, and the two approaches led to similar levels of learning by students.

The impacts of the in-school component in Peru are driven by improvements in girls’ reading skills. We found positive differences in the means of the outcome measures between Group B and Group C for boys and girls, but the differences were statistically significant only for the girls. For example, as shown in Figure 7, the percentage of boys who showed emergent reading comprehension skills in Peru is higher in Group B (79 percent) than in Group C (77 percent), but this difference is not statistically significant. In contrast, for the girls, difference between Groups B and C (a difference of 15 percentage points) is statistically significant. During a site visit evaluation staff conducted in November 2017, program implementation staff commented that in small, rural communities in Peru, there is a tendency for teachers to engage boys more than girls during their classroom practice. A program like *Leer Juntos, Aprender Juntos*, which emphasizes training teachers to engage and encourage participation of all students, could have opened opportunities for girls to engage more with their teacher and other students during the reading/literacy lessons, which in turn could have resulted in more benefits from the program for girls than boys.

Figure 7. Impacts of in-school component in Peru are due to improvements in girls' reading skills



Source: *Leer Juntos, Aprender Juntos* Students' Reading Skills Assessment—Final Follow-ups 2015 and 2016.

* Difference in group means is statistically significant at the 0.05 level.

The sizes of the impacts in Peru are comparable to the impacts of other interventions in developing countries targeting reading outcomes of children in the early grades. In Peru, some of the impacts of the in-school component were substantial, equivalent to effect sizes of, for example, 0.19 and 0.21 for decoding and fluency accuracy, respectively, and 0.321 for the percentage of children who achieved basic reading comprehension skills (Table 1). A study in Rwanda of Literacy Boost, the program upon which *Leer Juntos Aprender Juntos* was based, found no impacts on the percentage of children able to meet a basic threshold of reading comprehension, but accounting for the higher gains of those who did achieve the threshold and participated in the in-school component, found an impact of 0.16 standard deviations² (statistically significant) for the in-school component (Friedlander and Goldenberg 2016), which is larger than the 0.13 (not statistically significant) we found in Peru.

Further, we estimated the cost-effectiveness of the in-school component of *Leer Juntos, Aprender Juntos* to be approximately \$136 per 0.10 standard deviation increase in the basic reading comprehension rate. This cost is higher than some of the estimates for the same size impact reported by Evans and Ghosh (2008), which included \$19 for preschool programs in the

¹ The magnitude of this effect size should be interpreted with caution because it refers to a dichotomous measure (1=child achieved basic reading comprehension skills, 0= child did not achieve basic reading comprehension skills).

² This impact estimate is based on the reported difference of 0.21 standard deviations, which only applied to 74 percent of the sample that met the threshold.

Philippines, \$23 for class size reduction in Honduras, and \$47 for school vouchers in Colombia. However, other programs examined by Evans and Ghosh (2008) had higher costs than what we calculated for the in-school component of *Leer Juntos, Aprender Juntos*. Those programs included home visits in Jamaica (\$296 for an impact of 0.10 standard deviations of test scores) and student subsidies in Chile (\$465 for the same size impact on test scores).

Table 1. In-school component effects on literacy outcomes in standard deviation units in Peru

Literacy outcome	Effect size
Decoding	
Number of pseudo-words read correctly in one minute	0.13
Accuracy score	0.19*
Fluency	
Number of words read correctly in one minute	0.09
Accuracy score	0.21*
Reading comprehension	
Number of questions answered correctly	0.13
Percentage of children who achieved basic reading comprehension skills	0.32*

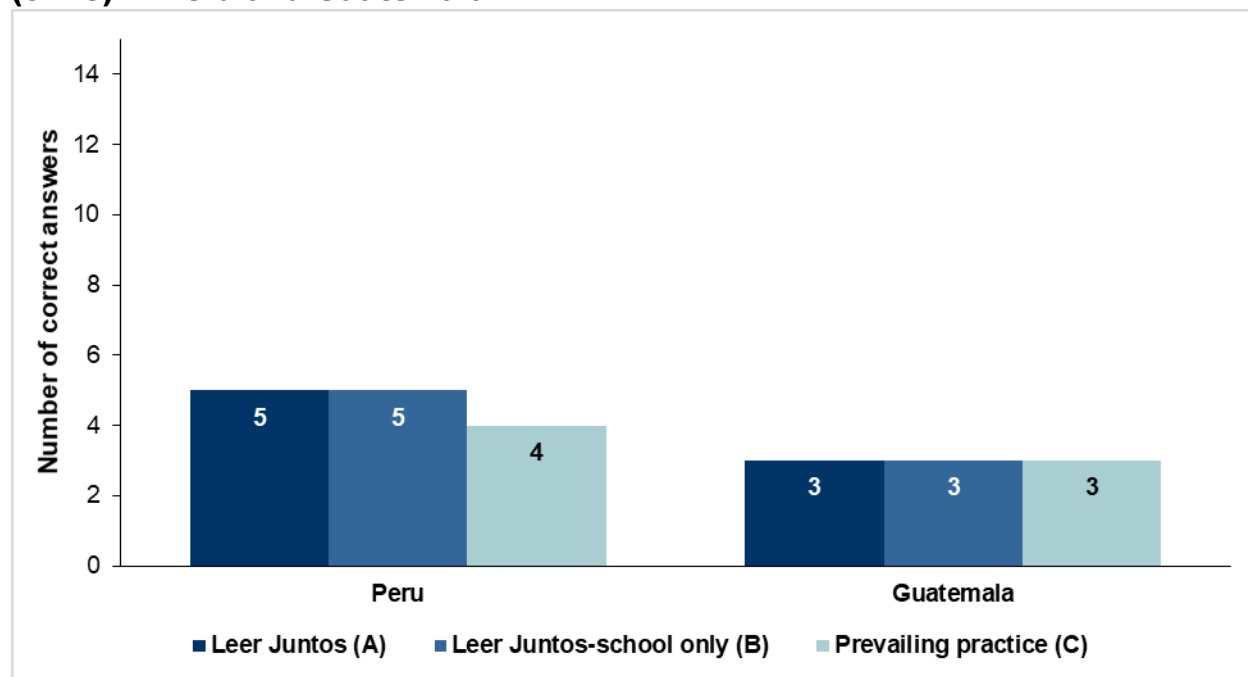
Source: *Leer Juntos, Aprender Juntos* Students' Literacy Skills Assessment—Final Follow-ups 2015 and 2016.

* Effect is statistically significant at the 0.05 level.

3. What is the impact of the community action component of *Leer Juntos, Aprender Juntos* on early-grade reading and other intermediate outcomes relative to an intervention that does not have the community action component?

In Peru and Guatemala, the community action component had some of the intermediate impacts predicted by the program logic model on the literacy environment in the classrooms and at home, but these intermediate results did not translate into impacts on students' reading outcomes. Teachers in schools implementing the community action and the in-school components of *Leer Juntos, Aprender Juntos* participated in the training and coaching activities offered by the program, and reported they used what they learned from the program in their teaching practices. We also found that most children in the evaluation communities read at home with a parent or other family members. However, we did not find evidence that students in schools implementing both program components had better reading skills or spent more time on reading activities at home than students in schools that implemented only the in-school component of the program. On average, children correctly read 23 pseudo-words in Peru and 22 in Guatemala (out of 50) in the decoding task, and 42 words in the two countries (out of 154 in Peru and out of 112 in Guatemala) in the fluency task. They also correctly answered, on average, 5 questions in Peru and 3 questions in Guatemala (out of 15) in the reading comprehension task. (Figure 8). However, the progress of the children in schools implementing the full program (Group A) was statistically indistinguishable from the progress of the children in schools implementing only the in-school component (Group B).

Figure 8. No significant impacts of the community action component on number of questions answered correctly in the reading comprehension task (of 15) in Peru and Guatemala



Source: *Leer Juntos, Aprender Juntos* Students' Reading Skills Assessment—Final Follow-ups 2015 and 2016.

Note: None of the differences between treatment groups presented in this figure is statistically significant at the 0.05 level.

E. CONCLUSIONS

Differences in Spanish language proficiency and prevailing teaching practices may explain why the in-school component had impacts in Peru but not in Guatemala. As described in the findings section, children in Peru had more oral comprehension language skills in Spanish compared to children in Guatemala. Thus, in Peru, teachers' Quechua language-speaking abilities were perhaps not as critical to the success of the program as teachers' K'iche' language-speaking abilities might have been in Guatemala, where few 1st grade students were comfortable using the language in which the teachers more commonly provided literacy instruction. Additionally, the prevailing teaching practices in Peru provided a stronger contrast to the in-school component.

The reasons for the lack of statistically significant impacts on reading outcomes from the community action component are different in the two countries. In addition to challenges with implementation of this component, which may have contributed to the lack of impact in both countries, differences in adult literacy levels and family practice may also have contributed. As noted in the implementation findings, in both countries, there were challenges with recruiting and retaining volunteers who had the appropriate qualifications to lead the community component's activities. In Peru, the community action component started three months later than the in-school component. In Guatemala, there were barriers to children's and parents'

participation in community activities—such as inclement weather and transportation costs—that could have depressed attendance at reading activities.

Additionally, in Peru, families were already doing reading-related activities at home, so the addition of the activities offered by the community action component of the *Leer Juntos*, *Aprender Juntos* program, although well received by parents and children, did not make a substantial difference in the reading opportunities with adult guidance at home. In contrast, in Guatemala fewer than 40 percent of the parents in the evaluation were literate. Therefore, parents had greater challenges reading with children and creating enriched literacy environments at home. In addition, the geography and inclement weather in Guatemala made transportation difficult and costly, which created barriers for the families in the evaluation to attend the program’s activities. In fact, the household survey showed that children’s attendance at reading camps and reading festivals was lower in Guatemala than in Peru.

The implementation of *Leer Juntos*, *Aprender Juntos* must be understood in settings where several programs aimed at improving early-grade literacy coexisted across the treatment groups. In Peru, the Ministry of Education had been implementing two national programs to strengthen children’s literacy skills: *Redes Educativas Rurales* (REDES) and the *Programa Estratégico Logros de Aprendizaje* (PELA). And in 2015, the Ministry of Education developed two additional initiatives that aim to improve student learning in elementary schools: *Soporte Pedagógico* (Pedagogical Support) targeting urban areas and *Soporte Pedagógico Intercultural* in primarily rural areas. These programs supported teachers in through workshops and principal training. Less than a third of schools in the current evaluation participated in each of these programs, with no significant differences between treatment groups.

In Guatemala, the Ministry of Education implements *Leamos Juntos* (We Read Together), a national reading program that provides teacher training, develops and distributes reading materials in Spanish and in the languages of the numerous ethnic groups in the country, establishes community alliances, and encourages parents to visit communal libraries with their children and practice reading at home (Ministerio de Educación 2012). During the evaluation period in Guatemala, the Departmental Directorate of Education (DIDEDUC) also implemented an initiative that included awareness-raising meetings with parents, teacher training and coaching in reading instruction, and active monitoring of school performance indicators. These education improvement efforts at the department level continue to date, with additional initiatives at the community, school, and classroom level that include supports for families, teacher training and coaching activities, book banks, and a compulsory 30-minute-per-day reading practice period for early primary grades.

F. LIMITATIONS

There are some limitations to keep in mind when assessing these findings. The first two limitations refer to the evaluation methods, and the third limitation refers to the generalizability of the findings.

The baseline of the evaluation was not a “true” baseline. In Guatemala and Peru, the baseline assessment of students’ early literacy skills occurred about three months after random assignment and about two months after the rollout of the teacher training activities of the

program. It was not feasible to measure baseline student outcomes before random assignment because several evaluation activities needed to be completed before data collectors could begin baseline data collection; these included identifying a local partner that could assist in recruiting and training field workers, implementing the data collection plan, and supervising data collection activities. As a result of the late baseline, the children's skills that we captured in the baseline assessment (when students in the evaluation were in first grade) reflect the ability of the students after up to three months of potential exposure to different conditions caused by assignment of schools to different intervention groups.

Despite the late baseline, it is still appropriate to consider the base year assessment as the reference point for the literacy skills of the children in the evaluation, even though it was possible for very early intervention effects to be reflected in the data. Under most circumstances, a late baseline—in other words, one that is not administered before the start of an intervention—will still be useful for estimating the impact of that intervention as long as the impact on skill development is slow in the early period of program implementation (Schochet 2010). This is likely the case because the teachers in the groups receiving the program (Groups A and B) had only been practicing their newly acquired skills for at most two months when the baseline data collection took place, and literacy acquisition in children is a process that happens gradually over many months or even years.

The evaluation design assumes that the impacts of in-school and community action components of the intervention are additive. Specifically, the evaluation design assumes that the effect of the community action component on its own relative to prevailing practice is equal to the sum of the impact of the combined in-school and community action components relative to the in-school component on its own. This assumption could be violated if implementing the in-school component makes it easier or harder to simultaneously do community activities. We did not find clear evidence of such a violation, but it should be taken into account by any policymakers who wish to apply the lessons of this evaluation to a future implementation of community action on its own.

Findings from this evaluation may not necessarily apply to other regions with similar problems to those that the *Leer Juntos, Aprender Juntos* intervention tried to address. It is always tempting to generalize from the experience of one or two studies to other contexts, but caution is warranted. The evaluation included schools from communities in the Apurímac region in Peru and El Quiché region in Guatemala. These communities were selected with the following criteria in mind: the locations had to be within reasonable driving distance from each other to facilitate intervention and evaluation activities. Additionally, the communities had to contain a high percentage of K'iche' (in Guatemala) or Quechua (in Peru) language speakers. For practical reasons, it would have been difficult to design a literacy intervention and an evaluation that included several different languages. Because of that, the communities in the evaluation do not necessarily reflect the reality of other regions or language groups in either country or any other country in the region. However, the quite different experience of Quechua-speaking students in Peru from that of K'iche'-speaking students in Guatemala underscores the importance of understanding two issues related to language skills: first, how much comprehension students have of the language of instruction (in this case, Spanish) when they start first grade in terms of their ability to benefit from an intervention such as *Leer Juntos, Aprender Juntos*; and second, what level of ability teachers have to provide reading instruction in the language that students

feel more comfortable using to communicate—which, at least for Guatemala, was the mother tongue (K’iche’) for a majority of the students.

G. LESSONS LEARNED

The evaluation in Peru showed that teacher training on foundational reading skills instruction can be a useful mechanism to help improve reading outcomes in LAC countries where teachers might not receive it as part of their pre-service training. The in-school component generated positive impacts on some student reading skills in Peru, but not in Guatemala. In Peru, the evaluation showed that teacher training and coaching in reading instruction can be effective, perhaps particularly when it is distinct from other teaching approaches already in use. The communicative textual approach used in Peru was markedly distinct from the *Leer Juntos, Aprender Juntos* approach to reading instruction. In Guatemala, the prevailing approach to reading instruction was similar to the *Leer Juntos, Aprender Juntos* approach. Teachers in the control groups of both countries reported receiving training and coaching, although not always at the coverage levels achieved by *Leer Juntos, Aprender Juntos*.

The evaluation in Guatemala demonstrated that it is important to consider that the existing array of programs may be at least as effective as the new program being introduced. In Guatemala, there are several efforts/programs at the regional and national levels with components and goals that are very similar to the components and goals of *Leer Juntos, Aprender Juntos*. Those efforts offer training to teachers in reading instruction focused on five foundational skills (alphabet knowledge, phonological awareness, vocabulary, fluency, and comprehension), have components at the community level, and seek to improve children’s early literacy skills and ultimately reading comprehension skills. If a new program’s approach is not different enough from that of programs already in place, it becomes difficult to distinguish the effects of the new program from the effects of the existing programs, and thus become difficult to justify this investment in the new program.

A program that relies on volunteers may have substantial challenges. In the Apurímac region of Peru and the Department of El Quiché in Guatemala where the program and evaluation took place, doing volunteer work related to children’s schooling or learning was not common practice and people expected payment for work. Therefore, it was difficult to recruit and retain volunteers with the right qualifications to lead the community action component activities in the two countries. Additionally, the challenges in recruiting and retaining volunteers delayed the implementation of the community action component activities in Peru. This challenge to the implementation of the community action component in Peru and Guatemala is one of the possible explanations for why the component did not have impacts on students’ reading skills in either country.

H. RECOMMENDATIONS

When choosing education programs to invest in and evaluate, funders should consider service gaps and programs’ complementarities with prevailing practice. It is important to understand the prevailing practices to establish whether a new program offers a clear contrast with what has already been done locally. A clear contrast is critical to any evaluation that seeks to answer questions about a program’s effectiveness, which in turn justifies whether the program is worthy of further investment. In the case studied here, our findings suggest that, as

implemented with the evaluation's population, *Leer Juntos*, *Aprender Juntos* did not yield results commensurate with its level of investment.

Implementers may wish to conduct feasibility pilots before rolling out the full intervention for evaluation. In the evaluation's regions in Peru and Guatemala, it was difficult to find, recruit and retain volunteers to lead the community action component activities consistently. Therefore, the feasibility of using volunteers should be tested in the local context before starting the implementation and impact evaluation of a program that relies on volunteering work.

Program implementers, regional and national education authorities, and donors should consider whether teachers are proficient in students' mother tongue before proceeding with an intervention like *Leer Juntos*, *Aprender Juntos*. Teachers' proficiency in their students' mother tongue is key to meeting the learning needs of children whose dominant language upon school entry is different from the school's main language of instruction. When teachers are not able to use reading instruction strategies in the language that is most accessible to students, it is more difficult for the gains in teachers' instructional skills resulting from teacher training and coaching to translate into improvements in children's reading outcomes. Ensuring that early-grade teachers are proficient in their students' mother tongue could be achieved through pre-service training, in-service training, or alternative methods of recruitment and screening of new teachers. And if pre- or in-service training is not possible, program implementers and donors should consider providing, as part of the program, additional training to teachers on their students' mother tongue and on the use of instruction strategies in that language before implementing a program that relies on those teachers' skills.

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U.S. Agency for International Development

1300 Pennsylvania Avenue, NW

Washington, DC 20523

Tel: (202) 712-0000

Fax: (202) 216-3524

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