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On the cover, clockwise from top left:

Guatemalan students read out loud to help develop reading fluency. *Photo by Miguel Marcelino Cabrera Vicente.*

A girl from La Libertad school in El Cuá, Jinotega Department, Nicaragua, participates in an activity that consists of looking at the object on the board, looking for the name of the object and pinning it where it belongs. *Photo by Miriam Martínez, CIASES.*

Teamwork of students of La Fraternidad Francisco Morazán School (6 grades) in Las Torres, Honduras. *Photo by Gloria Ulloa.*

Guatemalan students working together in a Ministry of Education reading workbook. *Photo by Miguel Marcelino Cabrera Vicente.*
RedLEI Research Program

Final Report and Phase 2 Planning

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The continued need for education development in Latin America

Global development efforts have led to increased school enrollment around the world, cutting the number of out-of-school children in half (United Nations 2015). However, a remaining challenge is leveraging that enrollment success into improved learning (Wagner & Castillo, 2014). While developing strong reading skills is a fundamental goal of any education system, many schools in developing countries fail to support literacy development for too many of their students (Montoya, 2016; Perelman et al., 2016). USAID is dedicated to improving reading outcomes for 100 million learners as a primary component of its current education strategy (USAID, 2011).

Despite improvement along certain educational measures that mirror global development trends, there remain serious research gaps to inform policy and practice about what works for early grade reading in Latin America and the Caribbean (LAC). Positive trends include reductions in the rural–urban reading gaps for all but three LAC countries (UNESCO, 2014). Additionally, average class sizes are smaller, while the proportion of trained teachers has increased across the region (UNESCO, 2014). However, a recent systematic review reveals that much of what we know about improving early grade reading interventions is predominantly informed from non-LAC contexts or from studies with poor empirical rigor (LRCP, 2018). This lack of region-specific research therefore limits planning efforts for LAC policy makers overall.

According to the Third Regional Comparative and Explanatory Study (TERCE), less than 40% of third graders assessed across 15 LAC countries were proficient in reading skills beyond the basic reading levels (Levels I and II; LLECE, 2016). Of the countries representing Central America, only Costa Rica scored higher than the regional average across all LAC countries. In fact, Guatemala, Honduras, Nicaragua, and Panama all scored more than 2 standard deviations below the regional average (LLECE, 2016). These findings illustrate the clear need to continue advancing context–driven research to design programs and locally test hypotheses for improving reading outcomes within the region.

Driving local solutions through a regional network

In 2010, the United States Agency for International Development (USAID) launched a development reform agenda known as USAID Forward. This initiative sought to create new partnerships to promote sustainable development and develop locally driven solutions (USAID, 2016). Within this orientation, the Red de Lectoescritura Inicial de Centroamérica y el Caribe (RedLEI; Central America and the Caribbean Early Literacy Network) was conceived.

Growing concerns about the limited availability of locally produced research across the region, as compared to other parts of the world, motivated further inquiry into the literature and training landscape across Central America and the Caribbean. The limited research implied that policy was
being considered and implemented without a clear understanding of the local contexts, needs, and resources.

Therefore, USAID supported an initiative referred to as the LAC Reads Capacity Program (LRCP). The overall objective of LRCP is to increase the impact and sustainability of early reading interventions in the region through evidence-based decision-making. To support this effort, the Program seeks to produce quality resources for early literacy and provide technical assistance to key stakeholders within the Program's constituent groups. The LRCP organizes its work around the following activities:

1. **Evidence and resources.** Conduct a systematic review of research and collection of resources on initial literacy in the LAC region over the past 25 years.

2. **Dissemination and knowledge exchange.** Implement contextualized strategies to provide relevant information and resources, along with an analysis of key stakeholders.

3. **Capacity building.** Develop the technical capacity among key educational actors in the region to implement evidence-based methods for improving early grade reading (EGR) outcomes.

4. **Sustainability.** Create, support, and strengthen new and existing platforms to improve EGR policy through a regional research network.

The systematic review revealed major concerns regarding the limited availability of local evidence about what works for EGR in the LAC region, along with critical research gaps (LRCP, 2016). In addition to the systematic review, LRCP conducted a series of stakeholder analyses. These provided a more focused review of materials and analysis of stakeholder resources among member countries at the national and sub-national level. This initial work, along with continued support from USAID, led to the formation of RedLEI as a LAC-specific network of scholars and institutions.

RedLEI was officially launched in May of 2018 with the aim of producing and promoting local research to improve the impact, quality and sustainability of early reading policies and practices across the region. Another central aim of RedLEI is local capacity development through training. Five objectives guide the network's activities:

1. Maintain a network of key stakeholders in Central America specializing in early literacy research;
2. Develop a Fellow training program to increase research in early grade reading for Central America;
3. Promote an evidence-based research agenda by local scholars and development of high-quality early grade reading resources;
4. Establish a regional funding mechanism to sustain researcher training and scholarship in early grade reading; and
5. Disseminate results for improved policy and practice.

The RedLEI network is designed to connect research to action. By developing a sustainable funding model for contextualized inquiry and disseminating results widely, RedLEI will motivate a more evidence-based decision-making culture in the region.

The other major line of work of RedLEI is capacity development. A unique aspect of the model is its cross-national footprint. This allows the network to operate as a regional training hub for educational researchers to specialize in early grade reading. The founding members of RedLEI are committed to investing in the training of EGR specialists to produce scientific evidence to inform key educational actors on what works for improving early literacy. Over time, RedLEI hopes to design and implement a longer-term training strategy focused on the following elements:

Designing a certification program for regional educational researchers interested in early grade reading and localized implementation; and

Designing a Master's degree program that builds on the certification program to deepen the research training as well as offering specializations in key early literacy topics for the region (multi-lingual; multi-grade; early childhood; technology, etc.).
From conception to action: Implementation of the regional network

RedLEI activities can be separated into two phases of implementation. The first phase took place from May to October 2018 and involved two main activities. The first activity included the launch of the regional network in Guatemala, coordinated by the University del Valle de Guatemala (UVG). This launch event brought together Central American researchers from local universities and a regional research institute located in Guatemala, El Salvador, Honduras, Nicaragua, and Costa Rica.¹

The founding member institutions were selected based on fieldwork conducted by the RedLEI Regional Director from May to September 2017. Ultimately, four universities were selected to join the UVG–led initiative based on their commitment to the RedLEI mission, their record of successful preparation of primary grade teachers, and positive experience or desire to work under the coordination of UVG.

Meanwhile, RedLEI also worked to recruit an inaugural cohort of 10 RedLEI scholars representing each of the member countries and advise their proposal development efforts. During Phase 1, RedLEI was supported with funding from the U.S. Agency for International Development (USAID), working through the Reading within Reach project, along with technical support from LRCP.

The second phase of the initiative will build on the proposal development efforts from Phase 1. During Phase 2, the selected scholars will implement their research proposals by engaging in data collection, analysis and write–up through continued support provided the RedLEI consortium. The findings from the studies will then be disseminated and used to inform policy based on locally developed evidence.

Overview of Phase 1 activities and research themes

Phase 1 efforts primarily consisted of helping the selected Fellows craft their research agendas and ensuring that their proposed research met high quality standards and the objectives of the network. The scholars worked closely with technical leads on the RedLEI coordination team to ensure that the research programs addressed local needs and would contribute meaningfully to the broader objectives of RedLEI.

In August 2018, RedLEI held a research workshop and dissemination symposium for the selected Fellows. The purpose of the event, which was hosted by UVG, was to bring the scholars together to share their research ideas and participate in a series of technical training workshops. The event concluded with the network’s first dissemination event, where the scholars showcased their proposals to the international research community in person and streaming online. Other key Phase 1 activities included the following:

- Review and selection of RedLEI Fellows;
- Overview of deliverables with Fellows and development of individual workplans;
- Individual routine monitoring meetings with each Fellow;
- Establishment of an online repository for research and Fellow deliverables;
- Revised literature review by research theme;
- International travel to attend UVG technical workshops and dissemination event;
- Revised proposals based on RedLEI technical team input and feedback;
- Preparation of Policy Briefs highlighting research significance and policy recommendations; and

¹ The founding institutions include: The Central America University (El Salvador); Central America University (Nicaragua); National Pedagogical University “Francisco Morazan” (Honduras); and Costa Rica University. Additionally, RedLEI includes membership from the Central American Culture and Education Commission of the Central America Integration System (CECC–SICA).
During Phase 1, the Fellows prepared ten proposals along important themes in literacy research and training for the region. The selected projects are grouped along five general themes: best practices in early grade reading research, improving teacher preparation, early childhood development, multi-grade and multi-lingual instruction, and technology enhanced learning and instruction.

**Best practices in early grade reading.** The LRCP systematic review revealed a lack of literature on what works for early grade reading in LAC and the use of evidence-based research for education planning (LRCP, 2018). Therefore, two proposals will investigate strategies and evidence around early grade reading in the context of their respective countries. One proposal involves a systematic review of trends and decision-making practices in Guatemala. Another will examine successful classroom practices for facilitating critical thought and reflective conscience in El Salvador. Understanding what works for EGR instruction will provide critical evidence for shaping new policies and classroom approaches.

**Improving teacher preparation.** Teachers form a critical component of positive classroom environments. Therefore, a second RedLEI theme is understanding better strategies for teacher preparation to build a stronger workforce of early grade reading educators. One proposal will investigate helping university preservice teachers in Costa Rica use reader identity stimulation to promote pro-reading classrooms. A second proposal seeks to document strategies to improve the curricular design of teacher training programs for early grade reading in Honduras. The research produced through these studies will help inform new approaches to teacher training models to create a better prepared workforce.

**Early childhood development.** Early deficiencies in reading development have serious implications for continued learning (Wagner, 2018). An additional set of proposals will investigate reading comprehension skills in Nicaraguan preschools through an early childhood intervention, as well as emerging literacy practices in preprimary learning centers across Costa Rica. These projects will advance our knowledge of an expanding sector across the region and help construct stronger early childhood education policies.

**Bilingual and mother tongue instruction.** Central America has a rich and diverse linguistic heritage. Meanwhile, evidence suggests the positive impact that mother tongue instruction can have on developing early reading skills (Cummins, 2000; Hornberger, 2003). In Guatemala, one research project will investigate strategies for improving mother tongue and bilingual reading practices in the country’s Mayan Quiché region. The findings will inform bilingual language instruction practices for improving reading among the country’s predominant indigenous community.

**Multi-grade classroom instruction.** Another prominent characteristic of Central America is its large proportion of rural learners. Often, rural students live in widely dispersed communities with a limited number of qualified teachers. This results in schools combining learners over multiple grades into a single classroom. Therefore, research in Nicaragua will seek to identify effective strategies for early reading instruction among the 34% of schools identified as multi-grade centers. Similarly, another project in Honduras will investigate best practices in learning and instruction among the country’s higher achieving multi-grade schools. This set of research studies will improve our understanding of how to navigate literacy instruction practices within complex learning ecologies.

**Technology-enhanced learning and instruction.** Central America parallels global trends in the rapid proliferation of access to mobile devices. Growing evidence points to the positive impact that technology can play in improving learning and instruction in the Global South (Arias-Ortiz & Cristia, 2014; McEwan, 2015). With that in mind, another proposal will investigate the effectiveness of incorporating mobile
learning platforms within Guatemalan primary schools for improved reading comprehension. The findings will build on existing research regarding the various uses of educational technologies, emphasizing applications within the Guatemalan context.

Taken together, these ten proposals will fill an important gap in the research base for improving what we know about how children learn to read in LAC and how teachers, communities, and effective policies can help.

**Phase 2 of RedLEI: Emphasizing implementation and sustainability**

With the proposals fully developed, the next phase of this initiative will extend the RedLEI objectives by supporting the research program implementation and institutionalizing the regional network. Previous work with regional research literacy centers provide some insight into the importance and effectiveness of creating a reading research network with a specific focus on improving Central American reading outcomes.

USAID’s first regional literacy initiative was carried out from 2002 to 2009 through the Centers for Excellence in Teacher Training (CETTs). Three regional centers were established through a Presidential Initiative to improve in-service training for teachers in early grade classrooms throughout the western hemisphere. Primary programming components included training and materials development to improve instructional techniques, with less emphasis on applied research. Over the course of the project, CETT provided training to over 35,000 teachers and administrators reaching almost 800,000 students in twenty-one countries (Zardini & Zardini, 2011).

The CETT initiative was largely successful at increasing continued professional development for teachers and materials development for improving reading outcomes. However, current data shows a need to enhance the research specific to Central America, which continues to lag behind the rest of the region.

Further, while the CETT model focused on providing direct support to teachers, it paid less attention to developing and sustaining locally produced research from a regionally established network of scholars. Therefore, a second phase of RedLEI would help to advance what we know about context-specific early grade reading contexts and successful implementation strategies. To help ensure a successful phase two of the RedLEI initiative, several funding components should be considered.

**Research support for all 10 Fellows.** A natural next step for supporting the Fellows in a second phase of implementation will be to fund the research proposed during Phase 1. This could include giving Fellows up to 18 months to adequately pilot their instruments, train local enumerators, collect data, analyze and write up their findings. The 18-month timeframe anticipates 6 months for piloting, revising, and enumerator training, 6 months for data collection and cleaning, and 6 months dedicated to analyzing and writing up the findings. We anticipate that a total of $20,000 per Fellow would be required for this activity. This includes $5,000 for fieldwork and $15,000 to support dedicated time for analysis and write-up.

**Continued technical support.** In addition to the research support, an important Phase 2 activity would include providing continued technical support to the Fellows. To fully support all ten Fellows, resources should be allocated to support a full-time research manager position. This person would serve as a dedicated reader and provide routine feedback to each of the Fellows’ projects. This person would also help the Fellows publish their findings in an academic or policy journal. A more sustainable model for Phase 2 planning would be for this person to be an integrated member of the RedLEI technical team. This person would not only work to continue providing technical and methodological advice, but also to keep the RedLEI vision at the center of the work and advocate for the lines of investigation needed to continue filling regional research gaps. Funding for this aspect would depend on the pay rate of the research manager. Other forms of technical support could include providing funding for registration fees for technical workshops.
to support methods training and/or academic writing development. Overall, technical support would involve an estimated salary of $80,000 for the research manager, including benefits, as well as a modest stipend of $750 per Fellow.

**Dissemination support.** Data collection and analysis is only one aspect of research. Dissemination of findings with the broader research and policy communication through national and international publications and conferences would help maximize the impact of the initiative. Therefore, Phase 2 would need to account for additional support to fund conference travel for the Fellows to present their findings at appropriate venues (CIES, AERA, etc.). An estimated $2,500 per Fellow would cover costs associated with international airfare, registration, and lodging for a conference attendance. Such ideas would include partnerships with the World Bank or the Inter-American Development Bank, webinars with the Inter-American Dialogue, or even collaborations with regional research institutes such as CECC-SICA.

**Institutional support.** In addition to direct support to the Fellows, support should be provided to UVG as the managing entity of Phase 2 activities. UVG’s work would include administrative and logistical tasks such as managing contracts and payments, communications activities, and approval procedures. Funding for institutional support would largely depend on the terms of an MOU that UVG would sign with USAID and would be in addition to the research manager referenced earlier.

An accounting for each of the outlined activities appears in Table 1.

**Funding strategies.** A primary concern for the deployment of Phase 2 activities is the availability of funding. USAID–Washington and the Global Reading Network have indicated that there is no guarantee that funds would be available through either organization, prompting a need for RedLEI to establish alternative funding strategies. As stated above, engagement with multi-lateral agencies such as the World Bank and the Inter-American Development Bank could support these efforts given potential policy alignments. Federal agencies such as the State Department or USAID country missions are other potential sources of additional funding through special initiatives intended to support cross–national research activity. Also, given the academic nature of the work, other possible funding sources could include the Spencer Foundation, AERA research grants or even specific University Innovation Funds.

Findings from the CETT provided further guidance from lessons learned about the initiative’s sustainability model. Initially, sustainability efforts focused on securing matching funds through public–private partnerships. Shifting interests from corporations that preferred to invest resources in other regions with a higher perceived need caused the CETT to shift to a more localized sustainability plan. The revised plan included committed funding from the CETT host university, promoting the program to local and national MOEs, and garnering support among key stakeholders (Zardini & Zardini, 2011). As a result, the revised CETT model emphasized sustainability along four dimensions: political, financial, institutional, and social. This model could prove useful in planning for RedLEI Phase 2 efforts.

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Table 1. RedLEI Phase 2 Proposed Budget

<table>
<thead>
<tr>
<th>Funding item</th>
<th>Units</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellow research support</td>
<td>10</td>
<td>$20,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Continued technical support</td>
<td>10</td>
<td>750</td>
<td>7,500</td>
</tr>
<tr>
<td>Full-time research manager</td>
<td>1</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Dissemination support</td>
<td>10</td>
<td>2,500</td>
<td>25,000</td>
</tr>
<tr>
<td>Institutional support &amp; staff</td>
<td>1</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Subtotal Phase 2 support</strong></td>
<td></td>
<td></td>
<td><strong>$312,500</strong></td>
</tr>
</tbody>
</table>

( excludin institutional support)

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For example, the Long-term Assistant and Services for Research (LASER) network was established to engage academic and local stakeholders in identifying and refining critical development research questions (see HESN announcement). The National Science Foundation also has a call that seeks to connect U.S. research institutions with a network of international stakeholders to improve trans–national research and collaboration (see NSF announcement).
Lessons learned and recommendations

Overall, the RedLEI initiative has been successful in achieving its Phase 1 goals. The initial phase sought to convene a cohort of scholars representing various Central American countries to receive advanced training in research development strategies in early grade reading according to regional needs. This training took the form of activities focused on career development as independent researchers.

Specifically, an initial cohort of Fellows was selected from among a pool of competitive candidates. Fellows were provided with four months of dedicated research advising and space for collaborative and professional inquiry. Further, the Fellows have prepared a series of research proposals that have been vetted through a peer-review process and adapted into a set of research and policy memos that will be published by the Global Reading Network. Finally, the Fellows have publicly defended their research designs and have responded to questions regarding their anticipated findings and impact.

The following lessons drawn from the initial phase of the RedLEI experience lead to recommendations that can be useful for creating a similar network in other regions.

**Lesson:** Recruiting a regional network of scholars to apply to the program required adjustments to the evaluation rubric that took into account the local context. Initially, the call for applications was developed according to what was considered desirable within a US context (conferred doctoral degree and successful publication record). However, these requirements ended up excluding the majority of applicants and was ultimately adjusted.

**Recommendation:** Complete a recruitment strategy and field scan to determine the basic and desired qualifications according to the context where the network will be deployed.

**Lesson:** Beginning a project without a complete implementation plan can cause ambiguity and prevent timely transition for continued deployment. RedLEI has been successful in completing the objectives set forth in the initial scope of work, but the contribution to the field will ultimately depend on securing funding for a Phase 2 implementation round. Further, much of the Phase 1 effort was dedicated to deciding on a strategy for activities beyond the initial contracts.

**Recommendation:** Expansion to other regions should include a full plan for proposal development and implementation funding prior to initial deployment.

**Lesson:** Coordination efforts are dependent on the degree of full-time staffing and support available. While a complete work plan was approved prior to Phase 1, turnover from key planning and management personnel within the project presented some challenges in later stages of implementation. Further, the research manager contracted to oversee the proposal development process for all 10 Fellows was underestimated as a part-time level of effort. This prevented deeper learning and support opportunities.

**Recommendation:** Establish a central location to coordinate the network’s efforts and provide dedicated, full-time staff to carry out activities through the life of the project and prepare a backup strategy in anticipation of potential turnover of key personnel.

**Lesson:** Initial ideas regarding program activities exceeded the scope of what was feasible. During Phase 1, a second dissemination event was programmed within the 4-month contracting period. The format of the event was modified from local offline events coordinated by each of the respective Fellows to a collective event broadcast live via online webinar. The change in format resulted in a no-cost extension to the project to account for the additional time needed to coordinate efforts for the live event and created some degree of confusion for the Fellows. Additional communication tasks associated with the pair of webinar events further stretched personnel resources.
**Recommendation:** Be intentional about what work needs to be completed to promote the objective and plan for sufficient personnel to carry out the tasks.

**Lesson:** Institutional memory can be improved through a dedicated online repository of deliverables and planning material. The RedLEI team created a dedicated repository for research and planning documents that were housed in a central and permanent location (Google Drive). This repository and associated email address will be accessible beyond the life of the contracted consultants on the project.

**Recommendation:** Prior to deployment, develop a data strategy and institutional memory plan for storing all material produced through the project in one central location.

In conclusion, Phase 1 of the RedLEI initiative has succeeded in its goal of establishing a network of regional scholars to conduct research to promote improved early grade instruction in Latin America. With appropriate support, Phase 2 will extend the RedLEI objectives by supporting the research program implementation and institutionalizing the regional network.
References


