CRECELEE
CASE STUDY
Promoting access to reading and learning during COVID-19 school closures in Peru.
LIST OF MAIN ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AeC</td>
<td>Learn at Home</td>
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<td>BS</td>
<td>BookSmart</td>
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<tr>
<td>UNECLAC</td>
<td>United Nations Economic Commission for Latin America and the Caribbean</td>
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<td>DIGEBR</td>
<td>Directorate–General of Regular Basic Education</td>
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<td>ABE</td>
<td>Alternative Basic Education</td>
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<td>RBE</td>
<td>Regular Basic Education</td>
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<td>GAP</td>
<td>General Assessment of Pupils</td>
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<td>RES</td>
<td>Remote Emergency Schooling</td>
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<td>GRADE</td>
<td>Group for the Analysis of Development</td>
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<td>EI</td>
<td>Educational Institution</td>
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<td>INEI</td>
<td>National Institute of Statistics and Informatics</td>
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<td>Minedu</td>
<td>Ministry of Education</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>Pebaja</td>
<td>Alternative Basic Education Program for Youth and Adults</td>
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<td>Pebana</td>
<td>Alternative Basic Education Program for Children and Adolescents</td>
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<td>ICT</td>
<td>Information and communications technology</td>
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<td>UGEL</td>
<td>Local Education Management Unit</td>
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<td>UMC</td>
<td>Office of Learning Quality Measurement – Minedu</td>
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<td>Unesco</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>WVP</td>
<td>World Vision Peru</td>
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A MESSAGE FROM OUR REGIONAL DIRECTOR

Dear partners and friends:

The pandemic brought about a drastic change in education, especially in low-income households. As schools were forced to close across the country, learning was confined to homes. In many parts of Peru, this is still the case today.

For this reason, in 2020 Worldreader’s CreceLee project brought an educational and technological solution to thousands of families in their homes, giving students access to a digital library in Spanish through the BookSmart app.

The project was carried out with our partners: GRADE and World Vision Perú. In addition to these partnerships, we also partnered with the Ministry of Education to incorporate our BookSmart library into the “Aprendo en Casa” learning platform.

The support of our partners allowed – and continues to allow – students and families from all over the country to access a free collection of 100 books aligned to the national curriculum, through their cell phones and tablets. This project is still as important as ever. As long as learning remains remote for these students, it’s imperative that strengthening reading skills and interaction with books continues to be an educational priority. This is a key initiative to mitigate learning loss and strengthen gaps arising from the remote schooling modality.

Therefore, to contribute to the growing pool of knowledge around remote learning, we want to share the findings from our CreceLee case study.

We’re grateful to our partners for making this project possible. Your collaboration and commitment help more children become readers – readers who build a better world.
2020 was an unprecedented year for education. In over 150 countries throughout the world (UNESCO)\textsuperscript{1}, the coronavirus pandemic forced governments to close schools and shift to virtual learning strategies for millions of students. In Peru, over 9.9 million school-aged children have been impacted by the COVID-19 pandemic (UNESCO)\textsuperscript{2}.

On March 16th 2020, schools in Peru canceled the beginning of the traditional school year and on March 20th the government announced its digital education strategy, a program for all students in preschool, primary, and secondary school titled Aprendo en Casa (I Learn at Home). The program provided continuity of classes through radio and television programming aligned with the national curriculum and provided various activities, guidelines, guides and educational resources via the AeC online web portal (MINEDU, 2020c).

“CreceLee,” a digital reading program for children 3-12 years of age in schools with low reading scores, was initially designed to contribute to improved reading outcomes via a classroom-based tablet intervention providing a school-to-home pipeline through books available on mobile phones in the home. The COVID-19 pandemic required the project to rapidly pivot to a home-based reading program for students and their families delivered exclusively through mobile technology and Worldreader’s BookSmart\textsuperscript{3} reading application.

This dramatic change in programming provided an opportunity to explore impact questions such as:

- How can Crecelee and Booksmart provide critical support to distance teaching and learning during school closures?
- Can we meaningfully engage and onboard teachers and parents in digital reading?
- How can we support local and national government strategies to keep children learning?
- What enablers and barriers exist to an equitable digital reading solution?

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\textsuperscript{1} School closures caused by Coronavirus (Covid-19)

\textsuperscript{2} School closures caused by Coronavirus (Covid-19)

\textsuperscript{3} BookSmart is an Android and web-app that contains a digital library with 200 Spanish books aligned to Peru’s Plan Lector (National Reading Program) and a “Book of the Week” instructional format with engaging activities that parents can use to foster learning in the home.
This case study is the synthesis of early findings generated during Worldreader’s national COVID-19 response starting in April 2020 and into a 4-month pilot from April – December 2020 with CreceLee partners World Vision Peru and GRADE.

CreceLee’s rapid response was two-fold. Initially, CreceLee coordinated with the Ministry of Education (Minedu) to integrate BookSmart within the AeC platform. This provided students across Peru with access to the BookSmart app and a collection of 105 Minedu-approved books. Minedu worked with Worldreader to integrate book excerpts from the BookSmart library into the AeC platform. Second, CreceLee partners piloted the remote reading intervention with five public schools (IEs, as per their acronym in Spanish) in the District of Chancay (North of Lima). A total of 600 second- and third-grade (elementary) students, five principals and 27 teachers participated in the project. The selected schools were located in urban and peri-urban areas reporting lower-than-average learning achievement and had no previous ICT-related programs.

World Vision selected schools from their areas of operation and the project team conducted all on-boarding, training and data collection virtually using telephone, virtual meetings, and messaging apps such as WhatsApp and Telegram. The pilot provided teacher training to 27 teachers and focused on the collection of books and simple pedagogical activities parents could do with their children pertaining to reading and learning. The intervention integrated the use of online learning tools such as discussion forums via WhatsApp and Canvas, online homework and educational games.

CreceLee coordinated with the Ministry of Education (Minedu) to integrate BookSmart within the AeC platform.

Overall CreceLee prioritized

Parental and teacher involvement in learning and generated at-home digital reading programming for 470 individuals

Use of available technologies for reading such as mobile phones, videoconferencing for training and the social messaging platform WhatsApp to support school-to-home communication

Improved reading habits aligned with the National Reading Curriculum and Aprendo en Casa (AeC)

Findings

The COVID-19 response resulted in the following early findings:

- 34% of students read using the app at least once, and 21.9% read at least one day a week, for 15 minutes or more.
- Pilot participants read 1,814 books, for a total of 16 books read per day (7 books per student, on average over the length of the project).
- Average reading time per student was 33 minutes per week, just shy of the targeted 45 minutes of average weekly reading time.
- The application provided access to 255 different books for CreceLee students, approved by the Ministry of Education Basic Regular Education Directorate (“Dirección General de Educación Básica Regular (DICEBRI)”).
- 34% of students read using the app at least once, and 21.9% read at least one day a week, for 15 minutes or more.
- The study found a positive association between both family socioeconomic status and availability of a mobile phone within the home, to the use of the BookSmart application, both in terms of reading frequency and reading time.

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4 World Vision is a world-leading Christian development, advocacy and humanitarian aid organization in child protection, with a presence in nearly 100 countries around the world. It has a broad and profound understanding of the dynamics of education in families in urban and rural communities, given its long trajectory.

5 The Grupo de Análisis para el Desarrollo (GRADE) (Development Analysis Group) is a private, non-political-party, non-profit research center. Its mission is to develop applied research to stimulate and enrich the debate, design and implementation of public policies.

6 Socioeconomic indicators for this study included connectivity, access, and use of technology.
In this sense, CreceLee was able to demonstrate multiple benefits, starting with access to immediate, continuous and user-friendly book reading in communities with low reading levels using mobile devices. The pilot took advantage of the fact that 97.7% of Peruvian homes possess at least one mobile phone, according to official data as of 2020, and fostered more fluid communication with stakeholders through messaging channels such as WhatsApp.

Sixty-eight percent of the families (319) who participated in the pilot project managed to download the BookSmart app on their cell phones despite some challenges reported due to phone memory capacity on their phones and poor phone functionality. Some additional limitations throughout the project included the difficulty in measuring reading skills in an online format, the dispersion of efforts in ICT usage; deficient connectivity among disadvantaged target beneficiaries (only 15% had internet access, though 22% owned a tablet and computer and 95% a mobile phone); and lack of time on the part of parents to support their children’s educational development due to overwork in the context of lowered family incomes caused by the ongoing health emergency. Language barriers also posed challenges, since some families spoke Quechua, but the working team did not.

Despite challenges, 80% of interviewed teachers and parents showed positive responses to the project. Their involvement also helped child beneficiaries to create a virtual community of practice, in as much as 70% of cases sent evidence (videos, photographs or text documents) of integrating digital reading in their homes.

“I no longer have to buy the books one at a time, neither do I need to print them. They look perfect from the cell phone or tablet and right now due to the economic insufficiency, that’s a plus.”

– CreceLee Parent
Synthesizing the CreceLee Project experience, the following recommendations can be made regarding the development of distance education programs:

**Generate strategic alliances.**

The results generated through the collaboration of the project partners far outweighed the individual contributions. Each partner brought their knowledge and experience to the program’s success. World Vision contributed the pedagogical approach and strong community presence; Worldreader contributed BookSmart, a digital library, and back-end data, and GRADE, contributed the research framework, monitoring and impact assessment.

**Alignment with the education system is crucial**

The coordinated work with the Ministry of Education helped secure approval of the pilot and strengthened the overall system by integrating it into Aprendo en Casa for all students. The design, implementation and evaluation of any educational program, including digital reading programs, should coordinate content choices with local education experts for increased uptake and relevance. For example, Booksmart’s digital library was approved by the Directorate-General for Regular Basic Education.

**Blended learning methods should be developed**

To the extent permitted by the Covid-19 pandemic, blended learning methods combine online and in-person learning to strengthen program uptake and impact. The use of inverted class learning methods (with greater student autonomy) and online games are further suggested. ICTs should be used to reinforce digital skills in the educational community with support from teams of NGOs or volunteers. Synchronous and asynchronous sessions can be scheduled with teachers based on the methodology and learning strategy to further support blended learning.

“At school there is not a library sufficiently stocked to provide a book to each child. Then again, the application (BookSmart) allows us to reach everyone with the same number of reading material, in a streamlined manner, organized by subject”

— CreceLee Teacher

"Generate strategic alliances."

"Alignment with the education system is crucial"

"Blended learning methods should be developed"
These recommendations are being incorporated into the design of the 2021-2022 school year in Peru scaling to 55 schools across Peru. The pilot ultimately showed that it is possible to create digital reading habits in distance learning environments and to onboard education ecosystem actors in all aspects of the roll-out.

CreceLee’s lessons learned during the early phases of the Covid-19 will help guide more permanent and fluid distance and in-person digital reading programs designed to improve educational outcomes. The project hopes to guide and inform other local ICT4E actors in Peru.

All key players within the II.EE ecosystem should be included in training programs. In this sense, it is necessary to expand strategies that integrate their participation, at different levels, roles and stages of the program. The CreceLee project trained teachers and collaborated with principals, parents, and students.

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Integrate all key II.EE School stakeholders, including families

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Leverage availability of existing digital tools to facilitate the rapid implementation of distance-learning resources

It is necessary to use resources and ICT devices according to the interests and availability of the participants. In the Peruvian context, the project took into account the high availability of cell phones and familiarity with resources such as WhatsApp (used during online support by 76% of participating families). Additionally, the use of learning platforms such as Canvas, supported online training.

Support digital literacy skills development of teachers and families

Explicit and regular remedial training supports actors in the ecosystem to feel confident and informed on the use of digital pedagogic resources and allows for the integration of last-mile solutions into trainings that are both offline, online, and blended. These competencies are cross-cutting and promote adaptation to new digital environments. For example, throughout the pilot project, teacher training was offered on the use of ICTs in the teaching and learning process.

Online reading made us know each other better as a family.

– CreceLee Parent

*District Education Officers, School Directors, coordinators, teachers, parents and students.
The year 2020 will not be easily forgotten. No one imagined what the world would face. By the end of 2019, a cluster of cases of pneumonia of an unknown cause (WHO, 2020) was reported in Wuhan, China, and a global pandemic was announced in March 2020 (UN News, 2020). Nations took important steps in the health, economic, political and social spheres to safeguard the physical well-being of their citizens. An evident need for the rapid transformation of everyday activities developed at all levels.

On March 11th, Peru announced a national health emergency and five days later the nationwide quarantine began. Within the education sector, classes were postponed. Until that time, Peru had never been faced with a need for wide-scale remote teaching, much less within basic education. Would teachers be prepared to teach classes under these conditions, considering that, according to the OECD (2019), 44% of Peruvian adults do not have basic digital literacy skills?

Public and private schools began remote classes on April 6, 2020, nationwide. “Emergency Remote Education” (ERE) began aggressively. Teachers faced a number of unimagined challenges for the first time: teaching a class remotely, planning asynchronous learning activities (in fact finding themselves wondering what “asynchronous” means), running a virtual learning platform, or boosting their classes using technological resources completely new to them. Many teachers devised creative solutions to provide an ERE with little or no access to connectivity and even without a computer, in their homes and that of their students (only 44% of Peruvian households have access to the Internet, according to INEI, 2020).

2. Project Overview

Nations took important steps in the health, economic, political and social spheres to safeguard the physical well-being of their citizens.

Only 44% of Peruvian households have access to the Internet, according to INEI, 2020.

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\* A term commonly used to differentiate this from online or distance education, which are developed in a planned manner.

\* Phase before or after asynchronous or real-time sessions, in which students perform autonomous work (for example, reviewing a reading or video).
Meanwhile, Peru’s Ministry of Education (MINEDU) had been designing the "Aprendo en casa"10 (“I learn at home”) strategy to provide continuity of classes during the state of emergency. Launched in April 2020, the program continues to offer radio and TV programming for elementary, middle, and high school students, providing access to learning experiences aligned with the National Curriculum, and programs that aim to generate an interest in learning. These programs have been broadcast on major national channels such as (state-owned) TV Peru or Channel 7, América Televisión, ATV, Latina, Panamericana Televisión and Global TV. Similarly, the radio learning sessions have been broadcast nationwide, including some in native languages (MINEDU, 2020c). MINEDU further provided various activities, guidelines, guides and resources for “Aprendo en Casa” (AeC) via a government-run online web portal and learning management system.

10 A remote, freely accessible and no cost education strategy that suggests learning experiences using three channels of communication: web, television and radio (MINEDU, 2020).

Figure 1. Source: Prepared from the interactive content “Coronavirus Chronology in Peru” (Andina, 2020).

Peru’s Ministry of Education (MINEDU) had been designing the "Aprendo en casa"10 (“I learn at home”) strategy to provide continuity of classes during the state of emergency.

Figure 2. Source: MINEDU (n/d).
By the end of 2019, Worldreader and World Vision had completed the design of the CreceLee digital reading project, which was to be implemented in 50 schools in the Lima Metropolitan area during the 2020-2021 period. CreceLee was designed as a classroom intervention, for second, third and fourth grade children, providing them with tablets specially furnished for reading digital books, using the BookSmart digital reading application owned and developed by Worldreader.

The intervention envisaged a strong component of training, coaching and monitoring of classroom teachers. The project design also included a home reading component so that students could continue reading from home through the BookSmart Home application on their family’s mobile phone. In this way, the project ensured a constant provision of quality books and teaching advice through a school to home reading experience, that provided support for teachers in the classroom, and encouraged parents to support the development of their child’s education through reading in the home.

Faced with the complications posed by COVID-19, a consortium of world-class institutions joined forces to transition the original project design and provide a pilot solution for the country’s most vulnerable families during school closures. Worldreader led the pilot project with the strategic participation of World Vision Peru as the project implementation lead and GRADE as the monitoring, evaluation and research lead.

Since 2010, Worldreader and its partners have distributed over 58 million digital books to more than 17 million children and young adults across six regions.

Worldreader believes that readers build a better world. A nonprofit with a low-cost, high-tech approach, Worldreader combines 21st-century technology, culturally-relevant digital books, and supportive programming to improve learning outcomes, workforce readiness, and gender equity in vulnerable communities around the world. Since 2010, Worldreader and its partners have distributed over 58 million digital books to more than 17 million children and young adults across six regions (United States, East Africa, West Africa, Latin America, MENA, and South Asia). Its smartphone applications, BookSmart for children and Worldreader for youth and adults, offer digital reading solutions to support learning both inside and outside of educational institutions (II.EE.).
World Vision

World Vision is a world-leading Christian development, advocacy and humanitarian aid organization working in child protection, with a presence in nearly 100 countries around the world. It has a broad and profound understanding of the dynamics of education in families in urban and rural communities, given its long trajectory. In its work to help reduce poverty levels and promote access to justice, World Vision supports all people regardless of race, religion, ethnicity or gender. In addition, their actions allow low-income and rural populations to live and grow healthily, and to improve their skills, as well as to have access to opportunities to achieve a fulfilling and transformed life. World Vision has been working in Peru (World Vision, s/f) since 1994.

Grupo de Análisis para el Desarrollo (GRADE)

The Grupo de Análisis para el Desarrollo (GRADE) is a private, non-political-party, non-profit research center. Its mission is to develop applied research to stimulate and enrich the debate, design and implementation of public policies. Since its establishment in 1980, in Lima (Peru), GRADE has carried out educational, economic, environmental and social content studies, in areas of special importance for the development of Peru and other Latin American countries. Its institutional objective is to publicize the results of its research among the state policies formulation key players and the general public. To meet strategic objectives, GRADE’s collaborators carry out rigorous controls to ensure that researchers produce quality academic content with a high degree of objectivity, to ensure that the findings reflect the true nature and cause of the economic and social processes, based on strong empirical evidence. GRADE is considered one of the most important social research centers in Peru and Latin America (GRADE, n/d).
Before the pandemic was announced, Worldreader had designed and scoped the CreceLee project as a face-to-face intervention using a blended learning approach, based on the typical development of in-school activities. The project was always oriented towards improving communication skills and positive attitudes towards reading by elementary school students and their families. Initially, the project envisaged execution in 20 educational institutions (II. EE - as per their acronym in Spanish), through the provision of tablets with the BookSmart application installed, as well as providing student-directed activities and promoting the role of families in building a reading-friendly environment. Another key factor of the intervention included hosting learning workshops, conferences, and meetings, mainly face-to-face, with key stakeholders to regularly iterate on the project and apply learnings to the program design.

Initially for 2020, classes II. EE Schools were planned to be taught traditionally face-to-face. At least 1100 school hours per year in elementary school (EBR) would be allocated. In addition, the school year was scheduled to begin in March and end in December, respectively.

After the pandemic was announced, the project leads faced the dilemma of either delaying the project or continuing work under the severe limitations of school closures as part of the “new normal”. This was an emergency situation, where vulnerable children were faced with even more restrictions to access quality education. The partners chose to continue the project with an iterative design process in response to constant changes in guidelines and protocols as a result of the pandemic.
To this end, the project redesign relied on three primary approaches for the four month pilot from September through December 2020:

**Home-based approach**

- The pilot aimed to determine the best way to involve teachers and parents in digital reading, focusing the intervention in 5 II. EE, in Chancay, with a population of around 600 children.\(^\text{15}\)
- Home was considered the central axis for the development of children’s activities, reading habits and communication skills. In this sense, desired changes in child reading behavior involved influencing parent and family behaviors as a whole.\(^\text{16}\)

**Technology-based approach**

- Ready access to mobile phones in Peru drove the strategy for accessing books in the home and engaging families in project activities\(^\text{17}\).
- All activities (training, learning program, support, etc.) were carried out remotely through an online format\(^\text{18}\), except for those performed by families in their homes. In addition, trained school staff provided personalized remote support adapted to the needs (availability, schedules, etc.) and means of communication of the participants (WhatsApp, text messages, etc.).

**System-reinforcing approach**

- Efforts to develop activities that would generate digital reading habits and the improvement of communication skills were aligned to reinforce the National Curriculum of Regular Basic Education and the AeC strategy, MINEDU.

\(^\text{15}\) The pilot project was held in Chancay, given the contacts of World Vision Peru and the ease of its implementation.

\(^\text{16}\) Throughout the case study, the performance of parents is mentioned interchangeably. However, it is worth mentioning that of the total number of respondents on the baseline and whose families agreed to participate in the project (442), 375 were mothers, 42 were parents and 25 other family members or guardians (grandparents, siblings, uncles, etc.).

\(^\text{17}\) Se potenció el uso de plataformas y entornos —Canvas, Zoom, Google Meet, WhatsApp— en una etapa de transición hacia lo virtual y se elaboraron materiales en formato digital —videos, flyers, guía metodológica—, dirigidos a los actores del proyecto.

\(^\text{18}\) The use of platforms and environments (Canvas, Zoom, Google Meet, WhatsApp) was enhanced at the online transition stage and materials were developed in digital format (videos, flyers, methodological guide), aimed at the project’s key players.
Worldreader's programs are inspired by the socio-ecological framework that recognizes that the formation of a reading habit and a true reading culture can be encouraged only if the program supports this work from the school, community and home of the child. Parents need access to books and guidance on the importance of reading material for their children, as well as related good practices. Teachers need access to books and pedagogical support to include these materials in their ongoing training. The community organizations, the media and "influencers" are also invited to join in this task.

"Parents need access to books and guidance on the importance of reading material for their children, as well as related good practices."
The main stakeholders trained to carry out these strategies included:

**05** school principals

**27** teachers in the second and third grade classrooms

**470** parents of participating students

- Public II. EEs. Public schools, located in urban areas
- Average below “satisfactory” level in the 2018 Census Student Assessment
- Does not have other technological contributions
- **225** and **245** students in second and third grades, respectively, between 5 II. EE SCHOOLS
- Between **1** and **4** sections per grade
- Average students per section: between **18** and **30** students, depending on I.E.,
The pilot led to the following learnings based on the three approaches of the project, that are being incorporated into the design of the next phase of the CreceLee intervention:

**Parent-based approach to home reading**
- Children learn as a family - This recognition is important for identifying learning opportunities within households, especially those faced with adversity.

**Technology-based approach**
- Integrate other ICTs effectively, such as platforms and digital tools that favor communication and are accessible to participants.

**System-reinforcement approach**
- Catalyze the synergies of organizations to interconnect and complement strategies such as AeC (MINEDU).
2.3 Description of key intervention and activities

The pilot project was carried out in the following phases:

**Fase 1: Preparation**

The pilot launched on August 10th, 2020, through a virtual Zoom meeting involving the key stakeholders. Prior to this, the team prepared strategies and resources to start the behavior change campaign: planning corresponded to the design of the project, the design of the instruments (questionnaires, interviews), the planning of learning activities (aimed at students), the selection of digital books, and the online training course (aimed at teachers), among others. This phase also included the induction into the use of the BookSmart application (installation, features and advantages), aimed at the II. EE School teachers.

**Fase 2: Support**

During this phase, the project team provided support to both teachers and parents through phone calls and WhatsApp groups (separate groups for principals, teachers, and parents). Resources such as videos, flyers and a training guide (for teachers) were also used. Through this regular communication, project staff resolved challenges associated with the development of the project and encouraged the participation of the key stakeholders to support the digital reading of students.

**Fase 3: Baseline**

During this phase, GRADE collected baseline information through the use of questionnaires aimed at principals, teachers, and parents, conducted by telephone. The researchers collected information on the home environment and connectivity.

**Fase 4: Teacher training**

In order to reinforce the digital skills of teachers and improve knowledge, skills and attitudes pertaining to the incorporation of digital books into their pedagogical practices, World Vision and Worldreader conducted a model synchronous session through the online course “Using ICTs for Communicative Competence and Learning” and the workshop “Online Educational Tools”. In all these contributions, synchronous sessions were offered. In the case of the online course, asynchronous activities such as discussion forums and tasks were also scheduled.

**Fase 5: Reading digital books**

This phase began October 5th, 2020 with the reading of the first BookSmart book, “Romina and COVID-19”. Starting this week, the children began the reading task of the eleven digital books proposed in the pilot project (one book per week). Each reading was given an associated activity (poster creation, activity schedule, masks, dramatizations and more). To carry out this intervention, the program offered data reloads to families who required it and delivered BookSmart codes to access their digital library (one code per family).

**Fase 6: Monitoring**

In this process, the research team conducted interviews with principals, teachers, parents, in order to know their perceptions and experiences in relation to the project, as well as their participation and involvement.

**Fase 7: Endline**

In this last phase, the research team gathered evidence of the activities carried out with BookSmarts’ books by the students. This evidence showed that the children had read the proposed books. Depending on the suggested activity, the evidence could consist of book dramatizations, narrations, songs, among others, sent in video, audio and photo format. The pilot project culminated on December 16th, 2020, with the closure of activities, an online event involving principals, teachers, students, parents, as well as representatives of the team.

*Item “3.1 Description of instruments” provides more detail of the surveys.

*Item “3.1 Description of the instruments” provides more detail of the interviews.
All these contributions are aligned to the project theory of change, which for the purposes of this work focuses on a comprehensive intervention dependent on the participation of teachers, parents and students. The project team provided support and guidance to these key players through educational support (accompanyment, training, materials such as methodological guidance) and the use of technological resources (such as the BookSmart App and WhatsApp groups). These contributions aimed at promoting communication skills in students.

“The project theory of change is essentially an exhaustive description and illustration of how and why a desired change is expected to occur in a particular context” [Center for Theory of Change, 2021].

*CreceLee Timeline*

**PHASE 1: PREPARATION**
- Project launch and training occur followed by launch of the support phase

**PHASE 2: SUPPORT**
- Support Phase begins with first round of data collection and provision of data packages

**PHASE 3: BASELINE**
- GRADE collects baseline data from parents and teachers

**PHASE 4: TEACHER TRAINING**
- Teacher training led by World Vision and Worldreader in Early September

**PHASE 5: DIGITAL READING**
- Student reading program runs from September through mid-December

**PHASE 6: MONITORING**
- GRADE collects monthly feedback from stakeholders and analyses BookSmart reading data

**ENDLINE**
- GRADE collects endline data and partners close pilot Dec. 16th with final report

*These contributions aimed at promoting communication skills in students.*
The following diagram shows the summary theory of change for the CreceLee project:

**Assumptions**
- Teachers and parents have access to mobile phones and will download Booksmart Home App.
- Teachers and Schools are open to new solutions if easily integrated and aligned to curriculum and learning objectives.
- Teachers know their role in the project.
- Teachers will perceive the application as a support tool, not more work.
- Parents want to support their child’s learning.
- Directors will be willing to adopt the program.

**Activities**

**For teachers:**
- Train teachers on use of Booksmart, WhatsApp, Book of the Week program, and tablets.
- Provide pedagogical digital guides to teachers aligned to books.
- Provide instructional videos to teachers and parents.
- Provide the course “Use of ICTs and communication competences”.
- Provide regular support to teachers.

**For parents:**
- Community sensitization to program and goals.
- Training on Booksmart, WhatsApp.
- Training on how to read to child and activities in “Book of the Week”.
- Provide instructional videos to households.
- Distribution of tablets or data cards to parents.
- Ongoing parent support.

**Teachers outputs**
- Teachers trained on Booksmart, WhatsApp, and use of Book of the Week activities.
- Teachers use the BookSmart app for their classes.
- Teachers use the pedagogical guide to assign reading activities as homework for students.
- Teachers use the strategies taught to them in their training courses.

**Parent outputs**
- Parents use the BookSmart application weekly with their children.
- Parents support their kids to complete the “Book of the Week” activities.
- Parents support their children to learn how to read at home.

**Short-Term Outcomes**

**For Teachers:**
- Teachers know how to integrate digital books and activities into weekly lessons.
- Teachers and parents value the content of the reading app.

**For students**
- Students use BookSmart to read the books of the week.
- Students complete the weekly reading activities.
- Students read books that aren’t included in the weekly reading program and begin to build a habit of reading.

**Long Term Outcomes**
- Students improve their reading, writing and communication skills.
- Students improve their digital literacy skills.
3. Research methodology

3.1 Research Questions

The main research questions that guided the study were:

- How can CreceLee and Booksmart provide critical support to distance teaching and learning during school closures?
- Can the project team meaningfully engage and onboard teachers and parents in digital reading?
- How can CreceLee support local and national government strategies to keep children learning?
- What enablers and barriers exist to an equitable digital reading solution?

For the pilot project development, the starting point had to be known and progress quantified. In this sense, GRADE collected baseline information and the subsequent monitoring data of the project by telephone using the following instruments:

1. Baseline Questionnaire
2. Interview sheet
3. Using the BookSmart app
4. Using BookSmart content
5. Support received
6. Involvement in the project
7. Reading habits at home
8. BookSmart content
9. Support received
10. Involvement in child learning

Figure 6. Applied Instruments
Source: Worldreader
Principals and teachers completed a baseline questionnaire to collect data related to socio-demographic characteristics, training received, connectivity, skills and attitudes towards technology. In the case of school principals, the survey included questions related to the characteristics of their II.EE. and the management of their II.EE. In the case of teachers, the survey included additional questions related to their work and the AeC strategy. In addition, as part of the monitoring, the research team interviewed both teachers and principals in two intervals to collect information on project involvement and the use of BookSmart.

Parents also completed a baseline questionnaire to collect data about the family’s socio-demographic and socioeconomic characteristics, internet connection, use of technology, their attitudes toward technology, and home reading habits. In addition, they were surveyed for quality of connectivity in the home and an opinion poll was subsequently conducted to understand their perception of the project’s impact on children’s learning. Like other stakeholders, parents were interviewed at two different times to learn about BookSmart’s content and use, level of support received, involvement in their son or daughter’s learning, and home reading habits.

Parents also completed a baseline questionnaire to collect data about the family’s socio-demographic and socioeconomic characteristics, internet connection, use of technology, their attitudes toward technology, and home reading habits. In addition, they were surveyed for quality of connectivity in the home and an opinion poll was subsequently conducted to understand their perception of the project’s impact on children’s learning. Like other stakeholders, parents were interviewed at two different times to learn about BookSmart’s content and use, level of support received, involvement in their son or daughter’s learning, and home reading habits.

3.2 Sampling Methodology

The idea was to offer an educational intervention in institutions that required the support of the project team. The selection of II.EE considered a very important factor: viability. The coordination conducted in other previous jurisdictions presented difficulties, so it was decided to select mainly II.EE SCHOOLS belonging to the team’s area of influence. The UGEL No. 10 of Huaral was chosen given the good relations between the team and the UGEL, which would allow to expedite the respective procedures and agreements, providing accommodations in the midst of the pandemic. Thus, 5 II.EE Schools, were selected in Chancay. The selection criteria took into account the type of management (public), the type of community (urban), the level obtained in the 2018 Census Student Assessment (below average), and whether the schools had existing technological interventions (no intervention).

The three main stakeholders sampled for the research included the principals of the 5 II.EEs, all second and third grade elementary school teachers and the 470 parents of students in these two grades.

Figura 7. Actors linked to the pilot program. Prepared by the authors.

Of the 470 parents, the researchers created two subsamples. A sample of 42 parents was selected for interviews, and a second sample of 158 were asked to complete an opinion poll.
3.3 BookSmart data collection

In order to track the individual reading behaviors of each program participant on BookSmart, the project team assigned unique access codes to each family participating in the CreceLee pilot. GRADE used this reading data and other qualitative data obtained from interviews with principals, teachers, and parents to evaluate the program. Tables 1 and 2 present the corresponding indicators and categories of data collected.

### Number of students who read on at least 1 day
- Count of students who read at least 1 minute in the BookSmart app during the pilot project development.

### Number of students reading, per week
- Count of students who read in the BookSmart app, in a given week.

### Average student reading time, per week
- Result obtained from dividing the “total reading minutes in the BookSmart app in a given week” by the “unique number of reading students in that week”.

### Most popular books read
- Books with the highest number of readers during the pilot’s project development.

### Number of students who read at least once a week, for a minimum of 15 minutes.
- Count of students who read at least 15 minutes on the BookSmart app, in a given week.

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**Table 1. BookSmart App data**

- The BookSmart application data was obtained through the usage data collected by this application, automatically, which are associated with the codes that students used to activate the application (the codes were provided to students from the beginning of the pilot project).

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**Picture 2. Qualitative data**

- Involvement in the Project
- Using the Booksmart application
- Informative Videoconferences and assistance
- Using BookSmart
- Using a pedagogical guide
- Online course
4. Limitations

4.1 COVID-19

Due to COVID-19, students’ literacy skills acquisition did not provide the best metric for the project’s success, given the complexity of implementation from a distance. These limitations were also present in the support of teachers and parents. Online support, designed to contribute to the improvement of literacy skills promoted in the project, envisaged two components: the pedagogical and technological. However, considering the limited digital literacy skills of several key players, significant time was spent on BookSmart technical training including the use of the application and the management of mobile phone information, among other digital support training. Despite explanatory videos on the use of the application, in many cases the assistance provided required personalized phone calls from the implementation team.

Connectivity limitations on the part of key stakeholders, were accentuated by the situation. Most students had access to internet from their respective II.EE Schools, although, as reported by the school principals, internet access was not high-quality. In their homes, the situation was different. Only 15% of students had Internet access at home. Although many of the households surveyed (95%) had at least one smartphone, usage mainly consisted of phone calls (93%), video calls (65%), reading internet news sites (61%) and sharing experiences on social networks (49%). Teachers had a similar frequency of cell phone use. Throughout this process, it was necessary to use the available devices (mobile phones, although not always with available data plans) and adapt the behavior according to the capacity of each device.
The economic crisis arising from the pandemic also affected principals, teachers, and parents significantly. Within households, the situation worsened throughout the pilot period. Many parents had to redouble their efforts, find more than one job, and work more hours a day. All of this led to less family time, less time spent supporting their child’s learning, and less time available to share their mobile phones and the devices that allowed students access to the digital books. Work overload and a lack of time were also exacerbated among teachers.

“Most (of the families) live off fishing, small-scale farming, factories, and the parents have not had that income!”
- Third grade teacher, female.

It is important to mention that, at the beginning of the pilot project (August 2020), the number of new cases of COVID-19 in Peru had been increasing steadily since the previous month. For this reason, the Peruvian government announced a ban on social and family gatherings, and restored the mandatory social distancing on Sundays. In the middle of the development of the project (October 2020) and at the end of the project (December 2020), COVID cases decreased, and some restrictions changed as a result.
4.2 Remote data collection through telephone interviews

Phone calls became the safest means of communication to survey, interview, guide and support teachers and parents. This was no easy task. For the application of the instruments carried out by a phone call alone, GRADE conducted more than 1350 calls. In the interviews, enumerators recorded a spoken informed consent before beginning the interview questions. Depending on the instrument, calls lasted approximately 15 to 45 minutes.

Both parent and teacher schedules posed some challenges to the interview process. In some cases, the calls overlapped with their working hours requiring calls to be rescheduled to align with availability. Often this meant calls were conducted very early in the morning, late at night, or on weekends. In addition, respondents did not always answer the phone during the rescheduled time, requiring multiple scheduling attempts. In some cases calls were placed randomly until parents responded.

In some instances, enumerators perceived the stress or concerns of the families due to the pandemic, such as cases of COVID-19 infection within the families, unavailability, etc., and chose to discontinue the interviews. Each case was assessed in consultation with the family in order to take their needs into account.

Enumerators perceived the stress or concerns of the families due to the pandemic.
Mobile network coverage also presented difficulties throughout the pilot. Depending on the area, coverage was at times spotty or even completely unavailable. This delayed fluid communication. In some cases, background noise such as street noise or the presence of young children prevented communication between the interviewer and interviewee.

In addition, there were some problems in establishing the language of communication. Some parents only spoke Quechua, while the interview team primarily spoke Spanish. There were also some cases when there was a lack of understanding of the questions asked, requiring the help of a family member for translation. Additionally, due to the nature of telephone interviews, non-verbal communication methods (body, facial expression, gaze, etc.) were not available for the qualitative analysis.
5. Program results

5.1 Student reading behavior

During the pilot project, 34% of students read at least once through BookSmart and 21.9% of the students benefiting from the project read at least one day a week, for a minimum of 15 minutes. The peak reading week corresponded with the first book from the reading program, “Romina and COVID-19”, a book that was well received among students and families. The next two weeks that stood out for having a greater number of student readers, coincided with the start of the online course aimed at teachers, the dissemination of the first audiobook through a radio program and the first round of interviews with the project participants. These three weeks corresponded to October and were after World Vision provided the first data recharge to the families.

According to BookSmart’s backend data, readers completed 1814 books, at the rate of 16 books per day. In most cases, the average time spent reading by students was 33 minutes per week, on days with reading activity. The peak recorded reading time was 67 minutes in the week of November 2nd, when the suggested reading was “Magic Beings of Peru. The Amarus.” This reading was inside a book with more stories so it may have taken a few extra minutes to find it and, along the way, other stories and images from the book may have captured the reader’s attention. The first four books, “Romina and COVID-19”, “Romina and Quarantine”, “Everything is the Cat’s Fault” and “Magic Stories of Peru: The Headache” were most well received. Those referring to COVID-19 were the books with the highest percentage of completion.

The following graphic considers the 154 students who accessed the BookSmart App between the indicated dates, showing the average reading time per student on the BookSmart app. This chart considers the second and third graders of the 5 II.EE schools. It shows that it was possible to exceed the threshold of 15 reading minutes per day and demonstrates noticeable improvements in the reading behavior of the students who were part of the study. It is worth mentioning that, on average, each student read 7 books throughout the course of the pilot. While just short of the targeted 11 books per student, it still shows decent engagement, given all the connectivity and digital literacy challenges faced by families.

Readers completed 1814 books, at the rate of 16 books per day.
Based on GRADE’s Tobit regression model in a sample of 449 households, GRADE identified factors associated with reading frequency, including the socio-economic status of the family and the teacher’s digital literacy skills. As for the factors associated with reading time, they also highlighted the teacher’s digital literacy skills, teacher involvement in the project and both parents owning a smartphone. Smartphone availability was a big factor because of the need for an at-home device in order to complete lessons, especially if there are multiple students living in the house.

5.2 Teacher and parent attitudes towards CreceLee

Both the teachers and parents interviewed welcomed the project with 80% of 165 respondents providing positive feedback. In general, teachers highlighted the pedagogical support provided by the team, as well as the pedagogical tools provided throughout the program, emphasizing the briefings and online course received. The interviewed parents also recognized the attention provided by the team, expressing their appreciation and desires for continuity of the project. They also noted that they perceived that their children had learned to read and express themselves better as a result of the intervention.

“I demonstrated that reading is not seen from an external perspective only, but from the background. We should not automate the child to answer questions on questionnaires, we get into the character and analyze its feelings - thinking.”

Some teachers reinforced the importance of reading reflection for creative thinking:

“Teachers highlighted the pedagogical support provided by the team.”
In the same way, other teachers recognized the commitment of some parents in the involvement of student training:

“The day-to-day has not diminished the commitment of parents, they have understood that their involvement in experiential-teaching is an example for their children.”

On their behalf, some mothers emphasized that, through the digital books, their children were able to discover new interests and reinforce their critical thinking:

“Encouraging reading is paramount, because through it, our children can discover what they want to be in the future. Thanks to online books, my child has been interested in plants, cooking and human values. He has reinforced his critical thinking; he wants to make a difference in society.”

Also, some parents emphasized the opportunity provided by the program to enjoy, get to know each other better as a family, and continue to value their sons and daughters:

“Those moments I share with my daughter transport me to my childhood, when my mom told me stories. That’s why I support [female student name] as I would have liked them to do it with me, with the technological limitations of those times.”

“Online reading made us know each other better as a family.”

“When we read together, we value our children and give them a different life perspective.”

“Encouraging reading is paramount, because through it, our children can discover what they want to be in the future. Thanks to online books, my child has been interested in plants, cooking and human values. He has reinforced his critical thinking; he wants to make a difference in society.”
6. Findings

6.1 Opportunities for government partnership in the context of COVID-19

The Team’s experience and knowledge of the Peruvian context contributed greatly to the development of CreceLee. For example, long before the crisis caused by the pandemic, World Vision and GRADE had been coordinating with MINEDU on various other projects and knew the context of public II. EE in Peru. Furthermore, during the pandemic, the AeC strategy designed by MINEDU began to be implemented in April, 2020. In the middle of that year, the team organized meetings with MINEDU to present the project, review the books from the BookSmart collection that would be selected for the development of the proposed activities and create an alliance. The Directorate-General for Regular Basic Education (DIGEBR) reviewed and approved the BookSmart digital library, an important step in providing access to BookSmart books for all students in Peru. Thus, the project collaborated with AeC, providing access to free digital reading resources aligned with the National Curriculum (105 books). Through a link published on the AeC web portal, the educational community had access to the BookSmart app Android download environment and BookSmart web app, thus the possibility to access its collection of books after either downloading and installing the application or accessing the books on their phone's web browser. It is important to mention that the project also collaborated with the “Aprendo en Casa” strategy by sharing book excerpts from the BookSmart library on the AeC web portal so that students, teachers and families could sample the content.

The project reinforced that ICTs for education, such as the BookSmart solution, provide opportunities for reducing gaps in access to learning and thus inequity in education. In this sense, a fundamental aspect that makes digital reading possible through BookSmart is the immediate, permanent and easy access to a wide collection of relevant books, aligned with the national curriculum and especially selected for different grade levels. This is even more relevant in a country where reading levels are very low\footnote{According to the results of the 2019 Sample Assessment, 38% of Peruvian second graders and 15% of second graders reached a satisfactory level in reading comprehension (UMC, 2020).} and students have little opportunity to access quality books, especially considering the current shutdown of schools and public libraries.

A second aspect that could contribute to facilitating the implementation and rapid availability of digital reading resources was the decision to base the project’s distribution strategy exclusively on cell phone use, considering the wide diffusion of these devices in the country\footnote{According to INEI (2020), 97.7% of households nationwide have at least one cell phone.}. The pilot showed the feasibility of future scaling to more students, teachers and households for an intervention such as CreceLee, multiplying the capacity for distribution of books and pedagogical content to a larger population nationwide. Likewise, the fact that the smartphone is a commonly used device in Peru provides opportunity for use as an educational support tool for students and their parents.

\* We Read Together* is a MINEDU strategy to promote reading, based on texts, audiobooks and learning activities.

\* "Aprendo en Casa" is a MINEDU strategy to promote reading, based on texts, audiobooks and learning activities.

\* "Aprendo en Casa" is a MINEDU strategy to promote reading, based on texts, audiobooks and learning activities.
Closely related to the previous point, is the potential use and effectiveness of social media and messaging apps in the target audience. In the case of CreceLee, WhatsApp allowed the project team to keep fluid communication with, and provide online support to teachers and parents such as building awareness of activities that improve reading skills in students. It is important to note that 76% of project parents reported using WhatsApp daily, which exceeds the daily use of other social networks such as Facebook (30%), Instagram (1.5%), Tiktok (1.5%) or Twitter (4%). In addition to the use of social media networks, World Vision Peru provided an online education program that trained teachers on ICT and education issues to address digital reading. The platform used for this purpose was Canvas, which World Vision Peru managed and facilitated.

These three aspects represent opportunities that digital technologies for education can offer to a project like CreceLee, that have also made it possible to carry out a 100% remote implementation with no face-to-face contact throughout the pilot period. These findings have implications for future blended learning models in Peru. In the same way, the experience of CreceLee can serve as a starting point for reflection and discussion about the potential and effectiveness of digital technologies for education, compared to traditional media like television and radio, as well as offering the opportunity to analyze the most appropriate contexts for the use of each platform for remote learning.

6.2 Challenges to integration with ‘Aprendo en Casa’

“"the digital skills of teachers and parents posed barriers"

One of the approaches engaged by the Peruvian government, in October 2020, was “guided promotion”, which stated that “the student will be registered in the following grade in 2021 and that he will have greater time and opportunities to consolidate the improvement of skills corresponding to 2020” (MINEDU, 2020b). Although the purpose of this policy was to provide resources to facilitate educational continuity, taking into account the conditions of a year marked by the pandemic, this decision had an impact on the behavior and attitudes of the educational community, reformulating efforts and priorities within families, as well as between teachers and the school principals. In some cases, the educational activities proposed in the project and, in general, schoolwork assigned by teachers, were no longer received by students. In other cases, the digital skills of teachers and parents posed barriers^35.

^34 This social network is one of the most used by parents of families linked to the pilot. Nationally, the situation is similar: 86% of Peruvian social media users use WhatsApp (IPSOS, 2020).

^35 At: “5.4.2 Digital competence”, this aspect is developed.
Another important challenge to highlight is the inequity in the provision of resources in family households. As a reference, at the Lima Metropolitan level, in the third quarter of 2020, 45.8% of households had access to a computer. In the same quarter, 44% of Peruvian households had Internet access. In the case of the pilot project carried out under the CreceLee project, the situation was even more critical because, considering the surveys carried out on the baseline, only 22% of the families had a technological device such as a computer, laptop, or tablet, and 15% of households had Internet access. As for cell phones, while 95% of the families surveyed and linked to the project had at least one smartphone in their homes, it was not always available. In addition, in the best case scenario, there were two cell phones in each home.

6.3 Impacting students during a pandemic

In addition to digital access, the CreceLee project highlighted pedagogical implementation in each phase of the project. While it is true that the project’s actions focused first-hand on principals, teachers, and parents, this joint-work aimed to promote digital reading and improve communication skills among children. In this sense, it was essential to prepare, train, and support teachers and parents with methodologies for teaching reading at a distance throughout the process.

Outside of the Metropolitan area of Lima, only 36.2% of households had access to a computer and in the rural area, this percentage decreased to 8.4%.

According to baseline results, in 64% of cases, both (father and mother) had a cell phone.
These methodologies included the design of learning experiences to be implemented from home during the pandemic to accompany reading the 11 proposed books in BookSmart’s collection. Through the activities, the students, with their families, were able to create posters with actions to prevent COVID-19, create a schedule of activities, build masks with the characters of a story and then present them as a family, narrate the story during dinner (capturing the moment through photos or videos), talk as a family about the meaning of the new words, sing a Chabuca Granda song, interview a close relative, etc.

Strategies were implemented to raise awareness among principals, teachers, parents, including online meetings (for the BookSmart app training and launch event, etc.), WhatsApp groups and digital materials (such as explanatory videos, methodological guide, flyers, etc.). The training and subsequent support offered and reinforced ideas for the integration of digital reading in a context of remote teaching. For example, the online course aimed at teachers may have had some impact on students (62 of the students who read from the BookSmart application were students whose teachers had passed the online course).

Three hundred and twenty nine portfolios (one per student) were collected, containing 1,851 items to evidence learning, such as photos, audio files, and videos. These submissions were positively reinforced through the inclusion of gamification elements. One such element was the online medals, the same ones awarded “superpowers” (super view, super hearing, super voice, super language and super mind) provided when evidence of having carried out the proposed activities was received. Figure 12 shows some examples of online medals.

Figure 12. Examples of online medals

Three hundred and twenty nine portfolios (one per student) were collected, containing 1,851 items to evidence learning.
All these strategies were launched to provide an educational approach to digital reading incorporating the BookSmart application. Furthermore, the proposed activities were designed to be characterized as significant, playful, motivating and inclusive. It should be noted that the participation of the family to carry out these activities was a valued aspect and was well received among the students. On the other, within the BookSmart app, families and teachers identified attractive elements for children, such as images and the length of texts as relevant aspects when assessing books by students and families.

Sometimes it helped him make origami, I also helped him with the masks, they were interesting and fun, as well as to hang out with the family*

- Mother of a third grader
6.4 Use of BookSmart for at home learning

6.4.1 Teacher and Parent Engagement

During interviews, a number of teachers and parents highlighted the advantages of the BookSmart app. For example, one teacher noted:

“At school there is not a library sufficiently stocked to provide a book to each child. Then again, the application (BookSmart) allows us to reach everyone with the same number of reading materials, in a streamlined manner, organized by subject.”

Likewise, some parents expressed their favorable attitudes, such as the following:

“I no longer have to buy the books one at a time, neither do I need to print them. They look perfect from the cell phone or tablet and right now due to the economic insufficiency, that’s a plus.”

These testimonials helped the research team better understand engagement with the BookSmart application by both parents and teachers, painting a clearer picture of some of the barriers and opportunities for distance learning and digital reading highlighted by the project.
Teachers

Half of the teachers interviewed claimed to have reviewed most of the programmed books through the BookSmart app and had planned and incorporated the activities proposed in the pedagogical guide into their classes. Some even adapted the activities to their context or added extra books to the reading program. Additionally, more than half of teachers claimed to have tracked student participation within the pilot project. How did they do it? Categorizing teachers into three levels of involvement, the below table outlines some of the actions each type of teacher took throughout the intervention:

<table>
<thead>
<tr>
<th>High involvement (13 teachers)</th>
<th>Medium involvement (4 teachers)</th>
<th>Low involvement (8 teachers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>52% of the teachers interviewed</td>
<td>16% of the teachers interviewed</td>
<td>32% of the teachers interviewed</td>
</tr>
<tr>
<td>Reviewed the programmed books and incorporated additional readings and/or activities (some teachers worked 2 books per week).</td>
<td>Reviewed at least half of the programmed books (some teachers worked in a couple of additional readings).</td>
<td>Didn't review any books suggested by the BookSmart app.</td>
</tr>
<tr>
<td>Applied the strategies learnt in the online course, with their students.</td>
<td>Incorporated at least half of the application readings into their classes.</td>
<td>Didn't incorporate readings into their classes.</td>
</tr>
<tr>
<td>Used methodological guidance.</td>
<td>Used methodological guidance.</td>
<td>Didn't use methodological guidance in their classes.</td>
</tr>
<tr>
<td>Tracked the assigned tasks.</td>
<td>Tracked the participation and/or tasks assigned to students.</td>
<td>Did not follow up students that participated in the project.</td>
</tr>
<tr>
<td>They participated in at least two briefings.</td>
<td>Participated in at least one briefing.</td>
<td>Did not participate in the online course.</td>
</tr>
<tr>
<td>Successfully completed the online course.</td>
<td>Completed the online course.</td>
<td></td>
</tr>
</tbody>
</table>

<Table 3. Level of teacher involvement>
The uses of BookSmart by teachers were diverse and supported by other resources during the period of remote classes. For example, during synchronous sessions, teachers used WhatsApp groups to communicate with students and their families. Eventually, some teachers were able to offer synchronous sessions via Zoom despite connectivity or device access issues, since those who had difficulties connecting over the Internet were able to call into the sessions.

In the case of teachers with the greatest involvement, some included activities before, during and after the digital reading. For example, they activated previous knowledge using title names or analyzing book covers, requested their students to record audio while reading and share them via WhatsApp (in some cases, they did so, synchronously, via videoconference and/or phone call), they asked questions or provided audio explanations about the readings, clarified possible doubts, and assigned other learning tasks. Some of these strategies are described in the below testimonials:

"First I try using the title, the images of the reading, then they make their predictions."
(Second grade elementary school teacher, female)

"For example, I show an image, the first image of the story, and I say, “Children, look at this image, what do you think the book will be about?” So, preliminary questions to build the child’s interest. So, as they see the hard cover, the image, they tell me “teacher, that’s a story.” “What does the title say?” They speak out names. “Then do you already have an idea of how the story will begin?” “Yes, teacher, yes” and they tell me. “Now let’s focus on reading the story.”"
(Third grade elementary school teacher, female)

"I try to get the cover of the text. I put the name of the text, the cover and explain the activities that they will do.”
(Third grade elementary school teacher, female)
When starting the reading activity, some teachers requested that their students read aloud. In other cases the teachers read aloud while the students followed along in the text. During the reading, teachers would pause and ask children reading comprehension questions:

“Then we move on to the reading. I give them a few minutes to read with their family or alone, then I ask that we read it all together, taking turns. Then I do the full reading to see if they can understand it, then I ask questions to help them retain their knowledge.”
(Second grade elementary school teacher, female).

“When I join the Zoom meeting, I explain a little more, I also ask what other questions there are.”
(Third grade elementary school teacher, female).

“I stop when we reach a bottleneck or problem. And then I ask again, “Children, what problem can the characters get into? or what event will happen now?” And the students begin to give their answers [...] “And how do you want the story to end?” They answer and I say “let’s now continue reading and see how the story ends.”
(Third grade elementary school teacher, female).

At the end of the reading exercise, some teachers continued with an explanation, some described the proposed activity and/or provided feedback:

“We also explain the activity, giving guidelines and that’s where it ends.”
(Second grade elementary school teacher, female).

“They send me their activities and I also check their work requesting improvement and which they will send back again.”
(Third-grade elementary school teacher, female).

“And finally, I leave homework, with the challenge set in the story.”
(Third grade elementary school teacher, female).
Parents and students

Books with the highest number of readers were characterized by the length of the text, combining it with images and, in some cases, addressing a very close current topic: the pandemic. The book with the fewest readers, "World of Above, World Below" was precisely one of the longest (23 pages). However, length wasn’t a consistent indicator of engagement since the next least-read book "The Mission of Fish", only has 4 pages including both text and several images.

Student participation through reading the proposed books of the week in BookSmart was higher during the first week of Phase 5: Reading digital books, with 14.3% of student readers. It was precisely this week that the first book was reviewed. In December (Phase 7: Closure), the participation decreased, reaching 7.4% of student readers, during the second week of this month. Within the study, the socioeconomic level (including measures of connectivity, access and use of technology), and the possession of a cell phone by both parents, in addition to their availability within the home, were found to be positively associated with the use of the application both in frequency and time spent reading.

Parents also implemented strategies aligned with class improvement and the proposed activities. Either parents themselves read the book, or it was the children who did so. In other cases, they both read together:

“I tell her to choose; for example, open the app, see all the story names and she chooses the drawing she likes the most and I read.”
(Mother of third grade student).

“What I do is I make him read the stories and when he finishes I ask him what happened, who the characters were, that’s what I do.”
(Mother of second grade student).

“Before going to sleep we read together and he doesn’t close his eyes until I finish telling him a story. His favorite BookSmart story was ‘Las alpaquitas’ because it was about the relationship between two brothers, the relevance of solidarity and animal protection.”
(Mother).
Likewise, some parents promoted the use of the dictionary, the insertion of comprehension questions and the realization of activities:

“Sometimes, we find words that she doesn’t know or understand, and we search it in the dictionary. I also mention the characters ... then I ask her what it was about and so on... I think it’s important because my daughter is discovering.”
(Mother of a second grade student).

“After reading you have to look for the meaning of the words you have never heard about and she starts to look for them […] I tell her to look well and sometimes I help her too, and then she does it”
(Mother of a third grade student).

“Well, they can create their own story, they may create their own riddle, as they say, with their own set of ideas, let them focus on themselves, that is, that they may live that story, that they may live that tale, that they may live that riddle, that they may feel it. I think it’s a very important method for them because that’s how they can put themselves in the place, that is, in the readings left to them by the teachers, then they can make those same characters because when two characters intervene, they have to change their voice, they have to lift the intonation a little more.”
(Mother of third grade student).
6.4.2 Innovations in teacher training and parental involvement

According to IPSOS (2020), Peru is estimated to have 13.2 million social media users, 86% of whom use WhatsApp\(^1\). Considering this popularity, the team created WhatsApp groups for communication and coordination purposes for each group of stakeholders. Therefore, during the support phase, the following were created: (i) a WhatsApp group for the five school principals, (ii) a WhatsApp group for the 27 teachers, and (iii) 27 WhatsApp groups for parents (one for each teacher). Examples of the three types of WhatsApp groups are shown in Figure 13.

The first image corresponds to the group of principals and, in this example, we can appreciate the sending of the link to participate in a meeting via Zoom and a video on the improvement of reading skills through BookSmart.

In the second image, we can appreciate the sharing of the document “Impact Stories” to the group of teachers, where testimonies are collected from the different key players who participated in the pilot.

Finally, in the third image, parents and students are encouraged to submit the first proposed activities, related to the reading tasks of the first books.

As shown in the examples\(^2\), the team streamlined communications with all groups. This practice was one of the innovations included in the project. Through this resource, the project team provided support, resolved conflicts, and encouraged participation in the project.

\(^1\) 69% of Peruvian social media users considered WhatsApp app to be essential during quarantine (IPSOS, 2020).

\(^2\) For more examples, see Appendix 10.
Another innovation integrated with the pilot project was the development of an online course aimed at teachers of the five II.EE Schools. The purpose of this course was for II.EE teachers to learn about the use of technologies in the educational context, especially in remote education and the features of the BookSmart application. In total, 21 teachers participated in the online course, of whom 11 approved of the course in training feedback. Synchronous activities (3 sessions via Zoom) were offered to clarify doubts and reinforce some of the addressed topics, and asynchronous activities were provided via the Canvas platform, where multimedia materials, discussion forums, and tasks were proposed.

Figure 14. Online course aimed at teachers
Source: Canvas Platform, managed by World Vision Peru
6.5 Challenges to use of BookSmart encountered by teachers and families

6.5.1 Connectivity

Teachers require access to the Internet in order to develop classes under the emergency remote education and to participate in pilot project training activities. Internet connectivity is essential to reinforce digital competencies and skills in the use of the BookSmart App. However, one of the most recurrent issues during synchronous online sessions was the Internet connection. Only 15% of the families surveyed said they did have internet in the home. Of the surveyed families who did have Internet at home (67), the majority (43) reported that the signal quality was mediocre. As for the data service on cell phones, 6% of surveyed families reported that they did not have internet access through their device, or confirmed that data plans were consumed very fast. Furthermore, a significant percentage of families who did have internet on their cell phones mentioned that the quality was poor (61%), or bad (18%). Since data was necessary for downloading the BookSmart App and downloading the proposed books essential for the development of the activities, the project team chose to provide between one and four data reloads to the families that required it throughout the pilot. In addition, almost no household reported having a smartphone exclusively for the student’s use, so students had to wait for the availability of the smartphone at home.

6.5.2 Digital literacy skills

Stakeholder digital literacy skills were a major limitation. In the case of teachers, doubts and inquiries arose regarding the installation of the application. In addition, there was evidence of poor management of technological resources during the development of the online training, the project team proposed a workshop on “Online Educational Tools” as a result. One of the teacher’s comments about her experience and difficulties encountered with the use of the BookSmart App revealed some of these challenges:

“I couldn’t download it, I didn’t know how to do it. Then I tried again to download it, and when I did, I didn’t even know how to use it; I was lost because I don’t use the cell phone for other things, I use it very little, so I did not know how to do it. And then the lady helped me. But right now I still get lost, I don’t know where I’m going to go for readings, where I’m going to find them ... I don’t even know where the reading is going to be stored on my cell phone and I reopen it to read it every time”

(Third Grade Teacher, Woman).

Parents also mentioned having problems downloading and installing BookSmart, as well as downloading digital books; and required support from the team. Memory capacity and sufficient space for the required download was crucial, although these key players also needed guidance to manage their smartphone information.
6.5.3 Using installation links and BookSmart codes

The involved key players received a link that allowed them to download the BookSmart App to their cell phone in conjunction with the collection of 250 books from the CreceLee project. In addition, each family received a code through which the number of readers, reading time and most popular books could be monitored.

It is important to mention that a total of 346 installations of the BookSmart application were carried out, of which 319 were for families and 27 for teachers who participated in the pilot project.

![Figure 15. BookSmart Android App](image)

6.5.4 Factors influencing teacher motivation

Several teachers (13) demonstrated high levels of participation within the project, which could denote motivation to participate. Other teachers encountered a number of challenges that influenced their motivation. For example, some claimed to have an overload of activities, not only in the workplace but also with staff; time was not enough to develop the activities related to the project (those of the online course). Likewise, adapting reading activities under the new format could be a limitation. In addition, teachers encountered technical problems such as connectivity, mobile data limits and the perception of not having all the support from the families. Repeating the words of one of the second grade teachers:

“In the last month only one student was on time with the readings [...] another student only has one cell phone at home, or if there’s no grade, they don’t perform the reading, and parents don’t download it either.”

A total of 346 installations of the BookSmart application were carried out.
In some contexts, the situation worsened when parents lacked reading or digital skills (some of them do not know how to read or write).

Within households, the economic situation was not the most favorable, even more so, considering the context of the pandemic. The inequity in the provision of resources in the households of families became more evident. Many families surveyed in the baseline (88%) lacked technological devices such as computers, laptops or tablets, which could have facilitated the development of remote classes and student learning. They also reported connectivity issues such as signal stability and insufficient mobile data, power outages, or absence of internet service all together. A favorable aspect was that most had at least one smartphone in the home, even if it was not always available in that environment. Instead, parents mentioned that they had problems when downloading the BookSmart App and also difficulties to understand the activities proposed in the pilot project, which had to be developed by the students, with their support. In the words of one of the mothers of a third grader:

"The difficulty I have is that I only have elementary school, and the education in the coast is different from that of the Andes [...] and I don’t understand the readings or the homework tasks my son has to do."

6.5.5 Factors Influencing Parent and Student Motivation

Figure 16. Teacher motivation
They also reported that the long readings of some books, as well as their complexity in understanding, may have made this behavior change more difficult: participating in the learning process of children through the Smartphone Mobile App.

6.5.6 Smartphone features

In most of the surveyed households, families had at least one smartphone (95%), although in a third of the cases, only one parent owned this smartphone, thus limiting its availability at home. 68% of the families who participated in the pilot project managed to download the BookSmart app on their cell phones. One of the encountered barriers was the lack of knowledge on how to download the application on their phones, despite the fact that the team in charge of the implementation (World Vision) offered online and personalized support to guide families. Other barriers reported by parents during interviews were the memory capacity on their smartphones and poor phone functionality.
7. Conclusions and recommendations for remote digital reading programs in Peru

The team, led by Worldreader and its partners, GRADE and World Vision Peru, offered a solution to 470 families from vulnerable backgrounds, helping improve the language arts skills of second and third graders through digital reading. With this, teachers, parents and students used the BookSmart App, which allowed access to 255 free, quality, digital books.\(^4\)

\(^4\) 150 books are aligned with the Peruvian National Curriculum and 105 books belong to freely available collections.

329 portfolios (one per student) were collected, containing 1,851 pieces of evidence. The selection of digital books considered in the pilot project, which were aligned with the National Curriculum of Regular Basic Education of Peru, helped to reinforce the learning purposes of students, identifying readings that matched with the topics addressed in AeC. In this sense, coordination and partnership with the Ministry of Education were relevant in this process, not only because of the linkage with the curriculum but also because of the support provided in the AeC strategy.

The technology used in the project was adjusted to the context of the pandemic, the target audience and the need to provide continuity to student learning. For example, 95% of the surveyed families had at least one smartphone, a device through which the BookSmart App could be downloaded. Additionally, the CreceLee project offered resources and online support, mainly to teachers and families who participated in the pilot project, using “friendly” communication tools such as WhatsApp and phone calls. Likewise, data bundles were provided to the families that required it, in order to help the application and digital book downloads.

The project demonstrated evidence of the work carried out within households to integrate digital reading, and the involvement of families in the learning process of students, as 70% of the children benefiting from the pilot project sent qualitative evidence through their portfolios.\(^5\) This evidence consisted of videos, photos, audios or text documents, which demonstrated the development of the learning activities proposed as part of the pilot project.

\(^5\) 320 portfolios (one per student) were collected, containing 1,851 pieces of evidence.
Based on the experience of the CreceLee Project, the following recommendations were made, considering the key aspects of distance education:

**Generate strategic alliances**

The results generated through the collaboration of the project partners far outweighed the individual contributions. Each partner brought their knowledge and experience to the program’s success. World Vision contributed the pedagogical approach and strong community presence; Worldreader contributed BookSmart, a digital library, and back-end data, and GRADE contributed the research framework, monitoring and impact assessment.

**Integrate all key II.EE School stakeholders, including families**

All key players within the II.EE ecosystem should be included in training programs. In this sense, it is necessary to expand strategies that integrate their participation, at different levels, roles and stages of the program. The CreceLee project trained teachers and collaborated with principals, parents, and students.

**Alignment with the education system is crucial**

The coordinated work with the Ministry of Education helped secure approval of the pilot and strengthened the overall system by integrating it into Aprendo en Casa for all students. The design, implementation and evaluation of any educational program, including digital reading programs, should coordinate content choices with local education experts for increased uptake and relevance. For example, Booksmart’s digital library was approved by the Directorate-General for Regular Basic Education.

**Blended learning methods should be developed**

To the extent permitted by the Covid-19 pandemic, blended learning methods combine online and in-person learning to strengthen program uptake and impact. The use of inverted class learning methods (with greater student autonomy) and online games are further suggested. ICTs should be used to reinforce digital skills in the educational community with support from teams of NGOs or volunteers. Synchronous and asynchronous sessions can be scheduled with teachers based on the methodology and learning strategy to further support blended learning.

**Use active teaching methodologies like flipped classrooms**

Which allocates practical activities to the class (face-to-face or synchronous) that apply previously reviewed content autonomously by the student (during the asynchronous stage). Another approach that could be expanded is gamification, the same one that integrates game components (such as the points, levels, and medal system) in order to motivate and generate learning. Worldreader’s methodological approach in all its programs is currently “inverted classroom”.

---

**District Education Officers, School Directors, coordinators, teachers, parents and students.**
It is necessary to use resources and ICT devices according to the interests and availability of the participants. In the Peruvian context, the project took into account the high availability of cell phones and familiarity with resources such as WhatsApp (used during online support by 76% of participating families). Additionally, the use of learning platforms such as Canvas, supported online training.

Support digital literacy skills development of teachers and families

Explicit and regular remedial training supports actors in the ecosystem to feel confident and informed on the use of digital pedagogic resources and allows for the integration of last mile solutions into trainings that are both offline, online, and blended. These competencies are cross-cutting and promote adaptation to new digital environments. For example, throughout the pilot project, teacher training was offered on the use of ICTs in the teaching and learning process.

Develop a technical support system

It is important to have a technical support team that can provide constant and personalized support to the participants of the program. It is possible to establish partnerships with organizations to recruit volunteers or last-semester education students to support this work.

Synchronous and asynchronous sessions should be planned according to the learning purpose and in line with the chosen methodological approach. For example, to train teachers within a digital reading program under the inverted class approach, it is proposed to:

- Select and/or create content in the format that best meets the needs of the participants (audio, video, etc.).
- Divide the contents to be taught. Anticipate educational, essential and concrete modules.
- Estimate the time spent by participants in reviewing each module.
- Allocate the synchronous sessions for the resolution of outstanding questions, practice sessions and feedback, both from the teacher in charge of the session and from the other participants.
- Propose model activities and spaces for reflection that both present and analyze good teaching practices, designed to encourage reading in students.
- Offer micro training workshops that address specific teaching strategies such as: reading aloud (reading intonation), annotated reading, and reading dramatization, among others.

Table 4. Recommendations for asynchronous stage and synchronous sessions for online training
These recommendations are being incorporated into the design of the 2021-2022 school year in Peru scaling to 55 schools across Peru. The pilot ultimately showed that it is possible to create digital reading habits in distance learning environments and to onboard education ecosystem actors in all aspects of the roll-out. CreceLee’s lessons learned during the early phases of the Covid-19 will help guide more permanent and fluid distance and in-person digital reading programs designed to improve educational outcomes. The project hopes to guide and inform other local ICT4E actors in Peru.


MINEDU (s/f). Lo que aprendimos. Recuperado de https://loqueaprendimos.pe/


References
### Appendix 1: Peruvian Education System Organizations

<table>
<thead>
<tr>
<th>Etapas</th>
<th>Modalidades</th>
<th>Niveles/programas</th>
<th>Cíclos</th>
<th>Grados</th>
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<td>1.ª y 2.ª</td>
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<td></td>
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<td>IV</td>
<td></td>
<td>3.ª y 4.ª</td>
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<td></td>
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<td>V</td>
<td></td>
<td>5.ª y 6.ª</td>
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<td>1.ª y 2.ª</td>
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<td>3.ª, 4.ª y 5.ª</td>
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<td>Ciclo medio</td>
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### Appendix 2 Skills developed by the CreceLee project

Las siguientes habilidades básica para la lectura se basan en el modelo Unlock Literacy de World Vision Perú:

1. **Conciencia fonética**
   
   Capacidad de reconocer y manipular los fonemas, los cuales se entienden como “las más pequeñas unidades que componen el lenguaje hablado” (NRP, 2000).

2. **Conocimiento del alfabeto**
   
   Conocimiento inicial de las letras para comenzar el proceso lector, que se desarrolla durante los primeros años de escolaridad.

3. **Fluidez**
   
   Capacidad de leer con precisión y rapidez, así como con la entonación correcta.

4. **Vocabulario**
   
   Comprensión de un número suficiente de palabras para entender el texto completo.

5. **Comprensión.**
   
   Entendido como “el proceso de extracción y construcción simultáneas de significado a través de interacción e implicación con el lenguaje escrito” (Rand, 2002).

Fuente: Extraído de la guía para docentes: Lectura desde lo cono, orientaciones de trabajo con estudiantes, padres y madres de familia, elaborada por World Vision Perú (2020).
Appendix 3: Advantages of digital books

25 principales ventajas de los libros digitales

Ventajas cognitivas
- Interactividad
- Acceso
- Vocabulario
- Tema de notas
- Búsqueda
- Lectura en voz alta
- Individualización
- Aprendizaje

Ventajas afectivas
- Interés
- Multimedia
- Agradable
- Adaptación

Ventajas sociales
- Compartir
- Restauración
- Colaboración

Otras ventajas
- Económicas
- Ecológicas
- Portabilidad

Fuente: Karsenti (2017)

Appendix 4: Activities carried out by the ongoing project

<table>
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<th>Fecha(s)</th>
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<td>10 de agosto del 2020</td>
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<td>14 a 28 de agosto del 2020</td>
<td>Inducción sobre el uso de la aplicación BookSmart</td>
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<tr>
<td>14 de agosto a 16 de diciembre del 2020</td>
<td>Acompañamiento a los docentes</td>
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<td>Acompañamiento a las familias</td>
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<td>A partir del 1 de septiembre del 2020</td>
<td>Recojo de la base de datos de las familias y aplicación del test de conectividad</td>
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<td>A partir del 4 de septiembre del 2020</td>
<td>Creación de grupos de WhatsApp</td>
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<td>9 de septiembre del 2020</td>
<td>Desarrollo de una sesión síncrona modelo (dirigida a una IE)</td>
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<td>11 de septiembre del 2020</td>
<td>Presentación de una experiencia educativa (dirigida a las cinco IE)</td>
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<td>15 de septiembre a 8 de octubre del 2020</td>
<td>Aplicación del cuestionario línea de base a directores, docentes, padres y madres de familia</td>
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<td>21 de septiembre a 14 de noviembre del 2020</td>
<td>Recarga de datos móviles a las familias</td>
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<td>A partir del 28 de septiembre del 2020</td>
<td>Entrega de los códigos BookSmart a las familias</td>
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<td>5 de octubre del 2020</td>
<td>Lectura del primer libro BookSmart, Romina y el COVID-19</td>
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<td>9 de octubre a 13 de noviembre del 2020</td>
<td>Desarrollo del curso virtual Utilización de las TIC para la Competencia Comunicativa y el Aprendizaje</td>
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Elaboración propia.
Appendix 5: Descriptions of the instruments

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<td>Cuestionarios línea de base</td>
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<td>• Cuestionario línea de base aplicado a 5 directores. Su finalidad fue recoger datos de los directores acerca de ellos y de las instituciones educativas que gestionan, referidos a las condiciones sociodemográficas, la formación recibida, la conectividad, las habilidades tecnológicas y las actitudes hacia la tecnología.</td>
</tr>
<tr>
<td></td>
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<td>• Cuestionario línea de base aplicado a 27 docentes. El cuestionario recogió datos de los docentes acerca de sus características sociodemográficas, de la formación recibida, conectividad, habilidades tecnológicas, actitudes hacia la tecnología, descripción de su trabajo como docentes, características de la estrategia AeC y de la gestión de la IE.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cuestionario línea de base aplicado a 5451 padres o madres de familia, o apoderados. La finalidad de este instrumento fue recoger datos acerca de las características sociodemográficas y socioeconómicas de las familias, la conexión del hogar a Internet, el uso de la tecnología, sus actitudes hacia la misma, y los hábitos de lectura en la familia.</td>
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Otros cuestionarios

• Cuestionario base de datos aplicado a 470 padres o madres de familia. Este cuestionario fue aplicado para recoger datos del niño o niña, padre o madre de familia, relacionados con su edad, nacionalidad, nombre completo, etcétera.

• Test de conectividad aplicado a 470 padres o madres de familia. Este instrumento, aplicado conjuntamente con el cuestionario base de datos —durante la misma llamada telefónica—, recogió datos relacionados con el tipo de teléfono celular, operador, acceso a Internet, televisión, radio, entre otros.

• Sondeo de opinión aplicado a 158 padres o madres de familia. El sondeo de opinión fue aplicado para conocer la percepción de las familias con relación al aporte del proyecto en el aprendizaje de los niños y niñas, las dificultades del uso de la aplicación BookSmart, la comprensión de los libros digitales propuestos y las recomendaciones.

• Ficha de entrevista aplicada en dos momentos al inicio y al fin del monitoreo —a 5 y 4 directores, respectivamente. Con este instrumento se recogió información relacionada con el involucramiento en el proyecto y el uso de la aplicación BookSmart.

• Ficha de entrevista aplicada en dos momentos al inicio y al fin del monitoreo —a 24 y 25 docentes, respectivamente. En esta entrevista, aplicada en dos momentos, se recogió información relacionada con las siguientes estrategias: videoconferencias informativas, acompañamiento, uso de la aplicación BookSmart, uso de la guía pedagógica y curso virtual.

• Ficha de entrevista aplicada en dos momentos al inicio y al fin del monitoreo —a 42 y 40 padres o madres de familia, respectivamente. Mediante este instrumento, se recogió información relacionada con el contenido y uso de BookSmart, el acompañamiento recibido, el involucramiento en el aprendizaje de su hijo o hija, y los hábitos de lectura en el hogar.

1 La línea de base fue aplicada a 545 padres o madres de familia, 470 de los cuales aceptaron participar en el piloto.
Appendix 6: Teacher’s guide structure

Lectura desde la casa: orientaciones del trabajo con estudiantes, padres y madres de familia

I. Presentación

II. Objetivo de la guía

III. Competencias y habilidades de lectura que se necesita trabajar desde el aplicativo BookSmart

(i) Competencias del currículo nacional de la Educación
(ii) Principales enfoques transversales que se trabajarán desde las lecturas
(iii) Las cinco habilidades básicas para la lectura

IV. Indicaciones generales

(i) ¿Qué implica leer en el hogar?
(ii) ¿Qué hacer antes de leer el BookSmart?
(iii) ¿Qué hacer durante la lectura?
(iv) ¿Qué hacer después de la lectura?

V. Planificación de sesiones y actividades pedagógicas en el hogar

(i) Metodología de trabajo
(ii) Libros y actividades de segundo y tercer grado

Fuente: Información obtenida de la Guía metodológica dirigida a docentes (2020)

Appendix 7: Virtual training design

<table>
<thead>
<tr>
<th>Módulos</th>
<th>Temas</th>
<th>Logros del aprendizaje</th>
<th>Indicadores</th>
<th>Evaluación</th>
<th>Actividad</th>
<th>Evidencia</th>
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<tbody>
<tr>
<td>1</td>
<td>Uso de tecnologías en el hogar</td>
<td>1. Enfoques educativos y relacionados con la tecnología</td>
<td>1. Observe el papel del docente en una sociedad tecnológica</td>
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<td>2. Uso de las TIC en el aula y en el hogar</td>
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<td>3. Comunicación y colaboración con las TIC</td>
<td>3. Configura entornos virtuales para el aprendizaje</td>
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<td>4. BookSmart</td>
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1. Elige una lectura de BookSmart y plantea una actividad de aprendizaje.
2. Reflexiona respecto al enfoque pedagógico que vas a planificar la actividad.
3. Enmarca los logros de aprendizaje que tienen que ver con la actividad.
4. Tomamos la actividad planteadita y se reflexiona acerca del modelo de innovación de la actividad planteadita.
Integra las enseñanzas virtuales en el proceso de enseñanza-aprendizaje.  14. Implementa una actividad con sus estudiantes usando el aplicativo BookSmart.

Implementación del proyecto

Documento institucional de planificación (adjunto) el área virtual y estrategias de evidencia por parte de los estudiantes (por lo menos tres).

2 Competencias comunicativas y habilidades básicas para la lectura

1. Las tres competencias comunicativas
2. Las cinco habilidades básicas para el aprendizaje de la lectura
3. Unidades centradas
4. Nuevas competencias de comprensión de lectura

4. Integración de las actividades pedagógicas en el hogar usando BookSmart.

Diseña y aplica actividades de aprendizaje para promover las competencias de comunicación y las habilidades de lectura.

Contextualiza y aplica las mejores actividades para promover las competencias comunicativas y las habilidades de lectura para el aprendizaje de la lectura.

Explica el enfoque de su práctica docente tomando en cuenta la tipología de aprendizaje y el contexto.

Tareas 2 y 3

Dos documentos de planificación de igual número de actividades que promuevan las habilidades de lectura y las competencias comunicativas en el área virtual.

Tareas 2 y 3

Dos documentos de planificación de igual número de actividades que promuevan las habilidades de lectura y las competencias comunicativas en el área virtual.

Tarea 4

Describa la importancia de la práctica de animación a la lectura y la evaluación formativa.

Expresar las definiciones de medición, animación a la lectura y evaluación formativa.

1. Definición de las competencias de aprendizaje
2. La evaluación formativa
3. Determinación de la importancia de la práctica de animación a la lectura y la evaluación formativa

1. Definición de las competencias de aprendizaje
2. La evaluación formativa
3. Determinación de la importancia de la práctica de animación a la lectura y la evaluación formativa

Tareas 2 y 3

Dos actividades basadas en técnicas de medición, animación a la lectura y evaluación formativa.

Tareas 2 y 3

Dos actividades basadas en técnicas de medición, animación a la lectura y evaluación formativa.

Fases 2

Una participación principal y dos comentarios a sus compañeros.

Fases 3

Una participación principal y dos comentarios a sus compañeros.

Fases 3

Una participación principal y dos comentarios a sus compañeros.

Fases 3

Un documento de descripción de la actividad de evaluación formativa que mida las competencias comunicativas y las habilidades de lectura.

Aplicación concreta de evaluación formativa: en el área virtual.

Aplicación concreta de evaluación formativa: en el área virtual.

Aplicación concreta de evaluación formativa: en el área virtual.

Aplicación concreta de evaluación formativa: en el área virtual.

Implementación del proyecto

Técnicas y herramientas de evaluación formativa aplicadas a su situación y dispositivos para reestructurar las actividades realizadas en el área virtual.

Fuentes: elaborado por World Vision Perú.
Appendix 8: Readers and reading time

Gráfico 2. Número de estudiantes lectores (semanal)

Gráfico 3. Porcentajes de estudiantes lectores (semanal)

Gráfico 4. Tiempo promedio de lectura por estudiante (semanal)

Fuente: Gráficos elaborados por GRADE (2020)
Appendix 9: Examples of communication through WhatsApp messaging platform

Grupo WhatsApp de directores

Grupo WhatsApp de docentes

Grupo WhatsApp de padres y madres de familia

Fuente: Capturas de pantalla de mensajes extraídos de los diferentes grupos WhatsApp dinamizados por World Vision Perú.