ALL CHILDREN READING:
GRAND CHALLENGE FOR DEVELOPMENT

UnrestrICTed Challenge

Leveraging Existing Accessibility Resources in Nepal (LEARN)

Project Evaluation

Prepared for All Children Reading: A Grand Challenge for Development
by School-to-School International

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Abbreviations

ACR GCD	All Children Reading: A Grand Challenge for Development
apps	Mobile Applications
CEHRD	Centre for Education and Human Resource Development
CIL	Center for Independent Living
COVID	Coronavirus Disease
DEC	Disable Empowerment Center
ECD	Early Childhood Development
EdTech	Educational Technology
EGR	Early Grade Reading
EGRA	Early Grade Reading Assessment
GoN	Government of Nepal
HI	Humanity & Inclusion
ICT	Information and Communication Technology
ICT4E	Information and Communication Technology for Education
IEP	Individualized Education Plan
ITT	Indicator Tracking Table
KAP	Knowledge, Attitudes, and Practices
KII	Key Informant Interview
LEARN	Leveraging Existing Accessibility Resources in Nepal
MEL	Monitoring, Evaluation, and Learning
MERL	Monitoring, Evaluation, Research, and Learning
MoE	Ministry of Education
MoEST	Ministry of Education, Science, and Technology
NDFN	National Federation of the Deaf Nepal
NDWA	National Disabled Women's Association
NSL	Nepali Sign Language
OPD	Organization of Disabled Persons
P-ETC	Provincial Education Training Centers
PTA	Parent Teacher Association
R4A	Reading for All
SAT	Scalability Assessment Tool
SMC	School Management Committee
STS	School-to-School International
SWC	Social Welfare Council
UDL	Universal Design for Learning
USAID	United States Agency for International Development

Executive Summary

All Children Reading: A Grand Challenge for Development (ACR GCD), established in 2011 as a partnership between the United States Agency for International Development (USAID), World Vision, and the Australian Government, advances EdTech innovation and research to improve reading outcomes for marginalized children in low-resource contexts. In 2020, ACR GCD launched the UnrestrICTed Challenge, a global competition calling on local and global solvers to provide the best Information and Communications Technology (ICT) solutions to ensure children with disabilities benefit from language, literacy, and learning support grounded in Universal Design for Learning (UDL) at home and school.

The Leveraging Existing Accessibility Resources in Nepal (LEARN) project, implemented by World Education, Inc., is one of three winners under the UnrestrICTed Challenge and is the only winner in Nepal. Targeting 200 schools in four provinces, LEARN aimed to improve the reading skills of learners, especially those with disabilities, by providing a combination of high-tech and low-tech materials with teacher training focused on inclusive education, UDL, EdTech, and the use of LEARN's resources in the classroom. World Education implemented the project from February 2022 to May 2023 in partnership with local organizations of disabled persons (OPD) and four provincial education training centers (P-ETCs), with the first trainings and materials distributed in late June 2022.

School-to-School International (STS), ACR GCD's monitoring, evaluation, research, and learning (MERL) partner, conducted the LEARN project's evaluation. In close collaboration with project staff, STS conducted a baseline and endline evaluation of the same cohort of learners to study LEARN's effectiveness in achieving its stated goals and contributions to ACR GCD's Learning Agenda questions. At baseline in March 2022, STS established learners' reading and language levels in Nepali and Nepali Sign Language (NSL) before they received support from LEARN; surveyed teachers' knowledge, attitudes, and practices (KAP); and captured learner demographic information through a learner survey. At endline in March 2023, STS measured learners' reading and language levels after approximately nine months of exposure to LEARN[1] and readministered the teacher and learner surveys.

Notable findings from 44 project schools that had resource classrooms or were special schools assessed at the endline are presented below. Additional observations from program data related to all 200 project schools are included as possible.

1 The baseline and endline were 12 months apart, but due to project approval and subsequent start-up delays, initial teacher trainings did not occur until June 2022.

Key Findings Related to LEARN'S Implementation

- **Of the 878 learners with confirmed disabilities in all schools targeted by the LEARN project,[2] 100 percent received access to the EdTech solutions according to program data.**
  However, the percentage of learners who reported using the EdTech in the endline sample varied dramatically by disability type according to endline evaluation findings. Most (84.5 percent) learners who are deaf or hard of hearing reported using the EdTech; compared to 50.0 percent of learners who are blind or have low vision and 26.9 percent of learners with cognitive disabilities reported the same. EdTech for learners who are blind or have low vision was particularly affected by delays in delivery, and an app specifically for learners with cognitive disabilities was not finalized until after the endline was conducted.
- **Learners who are deaf or hard of hearing are the most satisfied with the EdTech provided by LEARN.**
  More than 90 percent of learners who are deaf or hard of hearing reported that they like to use the EdTech "a little" or "a lot," compared to just 70.3 percent of learners who are blind or have low vision and fewer than 46.2 percent of learners with cognitive disabilities. Notably, over half of learners with cognitive disabilities did not respond to questions about EdTech.
- **LEARN provided training on working with learners with disabilities to at least one teacher at 100 percent of its project schools.[3]**
  Training topics included UDL and Nepali Sign Language and lasted between two and 10 days, depending on the topic.
- **Teachers who attended LEARN's trainings were generally satisfied with the content.**
  At endline, 94.1 percent of teachers were moderately or very satisfied with LEARN training on the EdTech, and 96.8 percent were moderately or very satisfied with other LEARN training content.
- **Teachers were similarly pleased with the EdTech provided by the LEARN project.**
  Just over half of teachers reported they were "moderately satisfied" with LEARN's EdTech solutions, and an additional 44.1 percent reported they were "very satisfied." Most teachers agreed or strongly agreed that they could easily access LEARN's EdTech toolkit (94.1 percent), could easily use the EdTech with learners (94.2 percent), and could easily integrate the EdTech into lessons (91.2 percent).

2 In the 200 participating schools, 878 learners had a medically diagnosed disability. However, the project provided support for many more learners that had suspected but not confirmed disabilities.

3 One teacher who could not attend during the three days of training was provided with two days of refresher training along with virtual and in-person mentoring support like other teachers.

Key Findings Related to LEARN'S Impact

- **At endline, 100 percent of teachers used EdTech every week.**
  Nearly one in three teachers (30.6 percent) reported using LEARN's EdTech in their lessons with learners daily, and an additional two-thirds reported using the EdTech in lessons between one and four times per week. The LEARN EdTech solutions teachers most frequently cited using were digital books or libraries (76.5 percent), Hamro Ramailo Katha app (41.2 percent), and Nepali Barnamala app (38.2 percent).[4] Additionally, classroom observation data indicated that 79.3 percent of teachers used the EdTech solutions as intended.
- **Early grade reading scores statistically significantly improved for learners who are blind or have low vision between LEARN's baseline and endline evaluations.**
  As measured by an adapted braille Nepali-medium Early Grade Reading Assessment (EGRA), learners who are blind or have low vision had higher fluency scores and lower zero score percentages on all subtasks. Specific improvements were correlated to grade level, literate family members, and family members who assisted with homework. No correlation was found between learners' scores and the use of the EdTech in the classroom.
- **Learners with cognitive disabilities earned similar reading scores at LEARN's baseline and endline.**
  There was no statistically significant increase in fluency scores on EGRA subtasks, and zero scores remained relatively consistent and high between baseline and endline. A weak positive correlation (0.34) was found between learners' listening comprehension scores and their view of how easy it was to use the EdTech. However, this may be more indicative of learners' general skills and abilities rather than the influence of the EdTech.
- **Learners who are deaf or hard of hearing saw statistically significant improvements in language learning and some increases in their EGRA scores between LEARN's baseline and endline.**
  The greatest statistically significant change in zero scores for this learner group was in NSL comprehension declining from 68.9 percent of learners who could not correctly answer a single question at baseline to only 27.8 percent at endline. This indicates that these learners, who have significant language acquisition needs, were better able to engage with the assessment's content at the project's endline than its baseline. The highest statistically significant change in literacy skills was on the consonant identification subtask, where scores for learners who are deaf or hard of hearing increased from 25.5 consonants correct per minute at baseline to 44.6 consonants correct per minute at endline.
- **Data from the SAT and OPD interviews indicated that the LEARN model does have the potential for scaling.**
  LEARN successfully raised awareness during the project's implementation and formed critical networks. To build on this success, LEARN needs resources for teacher trainings, follow-up support, and a mechanism for continuously updating the EdTech toolkit materials.

4 Hamro Ramailo Katha ("Our fun stories") is an app developed by OLE Nepal that has stories with letters, words, sentences, pictures, and sound. Nepali Barnamala ("alphabet") is an app for learning Nepali vowels, consonants, and matras.

Summary, Conclusions, and Recommendations

Overall, results from the endline evaluation indicate that LEARN has been well received by partners, teachers, and learners. LEARN has reached nearly all its intended audience with a solution that teachers universally feel is easy to access and use in a particularly short period of time (less than 12 months, June 2022 to March 2023). However, the project has been uneven in its ability to support the needs of learners with disabilities. Learners who are deaf or hard of hearing report the greatest engagement with the LEARN EdTech toolkit and notable increases in language acquisition; but their early grade reading scores saw only modest statistically significant increases from the project's baseline to endline. Learners who are blind or have low vision saw the greatest improvement in literacy and reading skills. However, the evaluation found no correlation between these scores and the use of the EdTech in their classrooms, likely due to issues with EdTech delivery. Learners with cognitive disabilities reported the lowest levels of satisfaction with LEARN's EdTech toolkit. They also saw the least change in their EGRA scores over the project's implementation period.

Still, the project design put forth by the LEARN project has promise—the project had high participation rates in its numerous trainings, built a network of solid and critical partnerships between schools and community actors, and indicates the potential for scalability. Indeed, the Centre for Education and Human Resource Development (CEHRD)—one of LEARN's Government of Nepal (GoN) partners—has already adopted one of LEARN's modules into its own teacher training curriculum on UDL and EdTech and has plans to integrate it into the GoN's larger customized teacher training package.

STS recommends the following actions moving forward:

- **EdTech:** Future iterations of the project should prioritize a few EdTech solutions that are most useful for specific demographics and work with teachers on incorporating those into lesson plans. Teachers increased their use of computers or tablets, feature phones, and smartphones between baseline and endline, and LEARN presented teachers with a wide array of resources and increased teachers' ability to use the EdTech. This gave teachers many options but may have also made it challenging to know which resources to use most appropriately. Future iterations of the project should prioritize a few EdTech solutions that are most useful for specific demographics and work with teachers on incorporating those into lesson plans.
- **Teacher engagement:** In the future, EdTech projects might also consider implementing digital literacy assessments that include practical components for teachers at baseline—for instance, demonstration of tablet or mobile phone use—to understand their level of comfort and ability to use the EdTech and tailor their curriculum from that point forward. Teachers seemed to appreciate the content they learned from the project but needed more support in better integrating EdTech and UDL into their lessons and tailoring these tools for the specific learners.
- **Learning outcomes:** Future iterations of the LEARN model should provide targeted teacher training in using the EdTech to support learners with cognitive disabilities with customized follow-up and mentorship to teachers. Supporting learners with cognitive disabilities is especially difficult, given that distractions are a factor, and teachers may need to know how to help learners use resources within the EdTech toolkit. Although learners who are blind, have low vision, are deaf, or hard of hearing saw some gains in their EGRA scores between baseline and endline, learners with cognitive disabilities showed no gains in learning outcomes.

Introduction

All Children Reading: A Grand Challenge for Development (ACR GCD), established in 2011 as a partnership between the United States Agency for International Development (USAID), World Vision, and the Australian Government, advances EdTech innovation and research to improve reading outcomes for marginalized children in low-resource contexts. ACR GCD is an ongoing series of competitions that leverages science and technology to source, test, and disseminate scalable solutions to improve the literacy skills of early-grade learners in developing countries. The global initiative focuses on sourcing new solutions, testing new ideas, and accelerating and scaling what works.

In 2020, ACR GCD launched the UnrestrICTed Challenge, which sought to scale information and communication technology (ICT) for education solutions that ensure children with disabilities benefit from language, literacy, and learning support grounded in Universal Design for Learning (UDL) at home and at school. The UnrestrICTed Challenge had three focus area-specific goals:

A. Children have access to and engage with ICT solutions, grounded in UDL principles, to develop language and literacy skills.

B. Teachers are better prepared to nurture language and literacy skills of children with disabilities through UDL principles and technologies.

C. Parents and communities have an increased understanding of how to support the language and literacy skills development of children with disabilities and have access to the tools to do so.

ACR GCD made three awards under the UnrestrICTed Challenge to organizations in Nepal, Papua New Guinea, and Rwanda. ACR GCD selected the Leveraging Existing Accessibility Resources in Nepal (LEARN) project, implemented by World Education, Inc., as its grant awardee in Nepal. This report shares findings from the project evaluation of the LEARN project.

Project Overview

Targeting 200 schools in four provinces, LEARN aimed to improve the language and reading skills of learners, especially those with disabilities, by providing a combination of high-tech and low-tech materials and training teachers on inclusive education, UDL, EdTech, and how to use LEARN's resources in the classroom. World Education implemented the project from February 2022 to May 2023. Originally slated to begin in February 2021, LEARN had to postpone implementation for a year due to delays with the Government of Nepal (GoN) approving the project.

World Education collaborated with a consortium of various partners and the GoN to implement the project.[5] To ensure local support, LEARN partnered with organizations of disabled persons (OPD) and a provincial education training center (P-ETC) in each of the four project provinces—Bagmati Province, Gandaki Province, Karnali Province, and Madhesh Province.

5 World Education's consortium partners included the National Federation of the Deaf Nepal, Action on Disability Rights and Development Nepal, AutismCare Nepal Society, Independent Living Center – Pokhara, Disable Empowerment Center, Prerana, Nepal Disabled Women Association, Inclusive Development Partners, and Benetech.

The project provided various teaching and learning materials to schools, with a principal focus on creating a digital EdTech toolkit featuring an array of resources—digital books, learning videos, and e-lessons—distributed via Google Drive and USB flash drives. While LEARN primarily curated existing early grade reading (EGR) content for the toolkit, LEARN's partners also supplied new resources for learners with disabilities. These new resources included a mobile app for learners with neurological disabilities, EdTech assistive devices for learners who are blind or have low vision, and 35 Nepali Sign Language (NSL) videos for learners who are deaf or hard of hearing. In addition, LEARN furnished project schools with low-tech resources—including reading cards, learning manipulatives, books, and assistive devices, such as magnifiers— along with television screens, tablets, and projectors after determining schools' needs for materials and technological devices.

Teachers received support from the project on how to use these resources through a series of training sessions, classroom visits, and virtual communities of practice. LEARN designed an initial five-day training focused on building teachers' conceptual knowledge of UDL, EdTech, and inclusive education. The training also sought to teach them how to incorporate LEARN's resources in their EGR instruction. Master trainers, including government trainers and OPD staff, delivered these trainings during the summer of 2022 to 395 teachers at 200 schools. Later, LEARN followed up with two-day refresher trainings in February 2023 for 297 teachers. In addition, LEARN developed and delivered a specialized 10-day training on NSL for 33 teachers who work with learners who are deaf or hard of hearing in resource classes or special schools. Project staff supported teachers by providing technical guidance, coaching during classroom visits, and establishing virtual communities of practice on Facebook and WhatsApp.

LEARN designed its activities with an aim towards scalability, sustainability, and replicability. To that end, the Centre for Education and Human Resource Development (CEHRD)—one of LEARN's GoN partners—adopted the five-day initial teacher training modules into its own teacher training curriculum on UDL and EdTech. In turn, these will be integrated into the GoN's larger customized teacher training package.

Despite its successes, LEARN faced numerous challenges in implementation in addition to the one-year delay in starting activities. First, the project design intentionally included challenging contexts in which there had been no previous inclusive EGR interventions. The rationale was to learn about what will work for all children in Nepal and avoid exacerbating existing inequality by only including more accessible schools with existing resources. This also meant that program schools and teachers likely had very little background and training in inclusive education and specific accommodations such as inclusive education plans (IEPs). Second, classroom use of project resources differed based on teachers' access to ICT equipment and experience and knowledge of EdTech, in addition to some EdTech being delivered later than others.[6] For instance, schools in the remote, mountainous Karnali Province generally had fewer ICT resources. Teachers there could not use the EdTech consistently due to internet and electricity outages. Teachers in Madhesh Province were generally the most unfamiliar with using the EdTech, which limited their readiness to bring resources into the classroom. Third, some schools lacked information technology personnel, which posed problems in addressing teachers' need for continuous support and troubleshooting. Other challenges included large class sizes in certain schools, unavailability of specific learning materials due to non-Unicode fonts, and limited foundational knowledge of EGR concepts and NSL among some teachers.

LEARN's reach was also limited due to several constraints. First, learners used project resources solely in classrooms as they lacked access to the EdTech at home. Second, teachers did not leverage all the resources at their disposal until the latter stages of the project due to their limited technical knowledge. For example, until project staff and partners assisted teachers during classroom visits, some did not know how to use Chromecast to display apps and digital books on LED screens.

6 For example, DAISY players were ordered from India, and spent many months held at the border in customs before being delivered to classrooms.

Evaluation Purpose

ACR GCD evaluated LEARN's effectiveness in achieving its outcomes and impacts as defined by the ACR GCD Results Framework.[7] The evaluation's findings contributed to the project-level outcome and impact indicators and the ACR GCD Learning Agenda Questions (see Appendix B: ACR GCD Learning Agenda Questions). In addition to measuring outcomes, the evaluation also examined what worked well within the project and what did not, intending to enable LEARN to improve its model, achieve its overarching goal, and improve its scalability. School-to-School International (STS), ACR GCD's monitoring, evaluation, research, and learning (MERL) partner, conducted the LEARN project's evaluation, with close collaboration from project and consortium partner staff.

Evaluation Questions

LEARN's evaluation questions are grouped into two categories—**implementation** and **impact**. To examine the research questions, STS and World Education collected data twice during the project. Although the baseline evaluation originally had 12 evaluation questions, the endline evaluation dropped multiple evaluation questions due to changes in project implementation.[8]

Implementation Evaluation Questions

The implementation evaluation questions are directly linked to and primarily answered by the LEARN MEL Plan and indicators, drawing heavily from program monitoring data. Questions are numbered according to the complete list, outlined in Appendix C: LEARN Evaluation Questions Mapping:

1. **To what extent did learners receive the intended dosage of EdTech exposure based on their IEP?**
2. **What were learners' levels of satisfaction with the project's different EdTech solutions?**
   - a. What do learners believe could be improved about the project's EdTech solutions?
   - b. How well did the project's EdTech solutions meet learners' specific needs?
3. **To what extent did teachers receive the intended dosage of training?**
4. **What were teachers' levels of satisfaction with the project's trainings?**
   - a. What do teachers believe could be improved about the trainings?
   - b. How well did the trainings meet teachers' specific needs?
5. **What were teachers' levels of satisfaction with the process of using IEPs to match learners with specialized learning materials using EdTech?**
   - a. What do teachers believe could be improved about the process?
   - b. What were teachers' levels of satisfaction with the project's EdTech solutions?
   - c. How well did the project's EdTech solutions meet teachers' specific needs?

7 Additional detail available in Appendix A: ACR GCD UnrestrICTed Results Framework Indicators and Appendix B: ACR GCD Learning Agenda Questions.

8 Additional detail in Appendix C: LEARN Evaluation Questions Mapping.

Impact Evaluation Questions

Impact evaluation questions focus on measuring higher level outcomes and effects of the LEARN project. They draw primarily from endline evaluation data collection tools. Numbers correspond to evaluation questions as outlined at baseline, not all of which are applicable at endline (see Limitations).[9]

8 **To what extent did LEARN teachers change their knowledge, attitudes, and practices on use of EdTech and UDL for learners with disabilities?**

- **a.** Did teachers have increased knowledge and improved attitudes on how EdTech can support learners' reading and/or language skills development?
- **b.** How and to what extent did teachers utilize project EdTech solutions in their classrooms and with their learners?
- **c.** Did teachers have increased knowledge and improved attitudes on how UDL principles can support learners' reading and/or language skills development?
- **d.** How and to what extent did teachers utilize UDL principles in their classrooms and with their learners?

10 **Did LEARN learners' reading and/or language skills improve from baseline to endline?**

- **a.** What contextual factors—including geographic, demographic, and socioeconomic factors—were associated with learners' reading and/or language skills gains?[10]
- **b.** To what extent did different EdTech solutions contribute to learners' reading and/or language skills gains?

11 **What contextual factors—including geographic, demographic, and socioeconomic factors—were associated with beneficiaries' use or non-use of the project's EdTech solutions?**

12 **How scalable is the LEARN model?**

LEARN Program Indicators and ACR GCD Learning Agenda

During the evaluations, STS also collected data to triangulate LEARN program indicators, listed in Appendix A: ACR GCD UnrestrICTed Results Framework Indicators and Appendix B: ACR GCD Learning Agenda Questions.

9 Questions 6, 7, and 9 (pertaining to primary caregivers) were not included in the endline evaluation questions and thus are not included here. They can be found in the Limitations section.

10 Contextual factors might include socioeconomic status, location, parents and caregivers' level of education, or language use at home, among other factors.

Methodology

The endline evaluation targeted 44 of the 200 schools participating in the program's interventions. Each school in the evaluation explicitly served learners with identified disabilities either as a specialty school or a mainstream school with resource classes.[11]

STS analyzed quantitative, qualitative, and project MEL data to answer LEARN's evaluation questions (See **Appendix I: LEARN Monitoring & Evaluation Matrix**). At baseline, STS established learners' reading and language levels before they received support from LEARN; collected data on teachers' knowledge, attitudes, and practices (KAP); and captured learner demographic information through a learner survey. At endline, STS measured learners' reading and language levels 12 months after the baseline assessment and administered teacher and learner surveys. STS also examined project monitoring data to further answer implementation evaluation questions and contextualize impact findings.

Measurement of learning outcomes relied on a census-based longitudinal design—the same respondents participated in both the baseline in March 2022 and the endline in March 2023, with replacements at endline for any learners who could not be reassessed from baseline. The purpose of this design is two-fold. First, a longitudinal design allows for greater analytical power with a smaller sample size. Second, it allows for an equivalent panel of learners at baseline and endline, as there is substantial demographic and experiential diversity among learners with disabilities—including in their age, grade, home language exposure, learning environment, starting learning levels, and classroom learning experience. Because of varying rates of attrition and replacement, a cross-sectional sample was also included, especially for learners with cognitive disabilities.

Teacher-level outcomes were assessed using a cross-sectional design—an equivalent sample of teachers was taken at baseline and endline without following up with specific individuals. This approach was taken to link outcomes of teachers in the same class as learners assessed, as teacher turnover is an important factor in schools.

Sample

The LEARN evaluation sample included learners with identified disabilities—including those who have cognitive disabilities, are blind or have low vision, or are deaf or hard of hearing—enrolled in mainstream schools with resource classes or in special schools for learners with disabilities. Therefore, of the 200 project schools, only 44 were included in the evaluation. STS, LEARN, and ACR GCD opted not to include learners without identified disabilities in the sample population for four reasons: the focus of ACR GCD's UnrestrICTed Challenge; the importance of building the evidence base of learners with disabilities and their reading skills; the opportunity to build capacity to administer adapted EGRAs; and the evaluation's limited resources.[12] As possible, this report draws on program monitoring data from all schools to contextualize evaluation findings.

Within the selected schools, the evaluation aimed to collect data from a census of learners at baseline—that is, to evaluate every learner within the target grades of Early Childhood Development (ECD), grade 1, grade 2, and grade 3. Because of the predominance of non-graded learners with cognitive disabilities, enumerators

11 These 44 schools included 13 special schools solely for learners with disabilities and 31 mainstream schools with designated resource classes for learners with disabilities. Among the 31 mainstream schools, eight had resource classes for learners with cognitive disabilities, 10 had resource classes for learners who are deaf or hard of hearing, 12 had resources classes for learners who are blind or have low vision, and one school had classes for learners with autism.

12 This is a critical limitation of the evaluation. Learners in the mainstream school system, including those who may have functional difficulties or disabilities and are unidentified, were excluded from this evaluation.

were trained to ask the teacher of each cognitive disability resource classroom which learners in ECD to grade 3 were learning to read and which learners in ECD to grade 3 were learning letters. All learners who fit at least one of the criteria were included in the baseline (see Table 1).

TABLE 1
LEARN Baseline Evaluation Sample

Known disability of learner at baseline[a]	Number of schools	Number of eligible learners	Number of learners assessed	Percentage of eligible
Cognitive disability	16	88	86	97.7%
Blind or low vision	12	65	58	89.2%
Deaf or hard of hearing[b]	16	197	104	52.8%
Total	**44**	**350**	**248**	**70.9%**

a GoN Flash Reports on Education provide a snapshot of schools and enrollment in Nepal. According to Flash I 2021-2022, 0.2% of the total student population in basic education (grades 1-5) have some sort of disability as classified by Nepal's nine categories of disability: physical, vision, hearing, deaf-blind, voice and speech, mental, intellectual, hemophilia, autism, or multiple disability (CEHRD, 2022).

b The total number of learners assessed at baseline is significantly lower than the target for learners who are deaf or hard of hearing in large part due to one school: Kendriya Bahira Ma V. The head teacher only allowed data collection for one day; therefore, the enumerator was only able to assess 10 of the 67 learners.

At baseline, seven schools were not able to be visited or assessed due to teacher absenteeism or school closure due to teacher exams. Therefore, there were 37 schools visited in total. At endline, the evaluation attempted to reach all schools and learners assessed at baseline, outlined in Table 2. Overall, the endline assessment reached 80.5 percent of the identical learners at baseline, with a much lower proportion of longitudinal learners reached in the cognitive disability group.[13] As a result, this report includes both longitudinal and cross-sectional analyses around learner outcomes as appropriate given how attrition impacts results (Pan et al., 2020).

TABLE 2
Endline Longitudinal and Replacement Sample

Known disability of learner at baseline[a]	Number of schools	Percentage of longitudinal learners	Percentage of replacement learners
Cognitive disability (n=78)	14	68.0%	32.1%
Blind or low vision (n=54)	11	87.0%	13.0%
Deaf or hard of hearing (n=103)	10	87.4%	12.6%
Total (n=235)	**35[a]**	**80.5%**	**19.2%**

a At endline, two schools in Province 2 that were visited during baseline were not visited again because they only had one learner assessed at baseline, who had since moved to a different school.

13 Many learners from baseline in the cognitive disability group were absent or had dropped out by endline.

The sample of teachers at endline mirrored the baseline sample by province (see Table 3). At baseline, 33 teacher records were collected for analysis, and 27 teacher records were used.[14] At endline, 34 teacher records were collected and used.

TABLE 3
Teacher Sample, Baseline and Endline, by Province

Teacher sample	Percentage of teachers (Bagmati)	Percentage of teachers (Gandaki)	Percentage of teachers (Karnali)	Percentage of teachers (Madhesh)	Total
Baseline (n=27)	59.3%	18.5%	11.1%	11.1%	**100.0%**
Endline (n=34)	52.9%	23.5%	11.8%	11.8%	**100.0%**

Data Collection Tools

STS used various data collection tools administered across and at different evaluation points for the LEARN evaluation, as detailed in Table 4.

TABLE 4
Data Collection Tools by Evaluation Point

Baseline tools	Endline tools
• Adapted EGRAs	• Adapted EGRAs
• Learner surveys	• Learner surveys
• Teacher surveys	• Teacher surveys
• Scalability assessment tool (self-administered by project)	• Scalability assessment tool (self-administered by project)
	• OPD partner Key Informant Interviews (KIIs)

Additionally, STS utilized project data collected for all 200 schools through LEARN's internal MEL system, as described in **Appendix D: LEARN Indicator Reference Sheets**. These tools included teacher training attendance records and classroom observation data. STS used this data to answer evaluation questions as specified in **Appendix I: LEARN Monitoring & Evaluation Matrix**.

14 The teacher baseline sample was originally reported as 33 teachers. Two duplicate records and one practice record were identified and later dropped.

EGRA Tools and Adaptations

STS used existing Nepali-medium EGRAs for the LEARN evaluation. Specifically, STS used the USAID Reading for All's (R4A) EGRA adaptations for learners with disabilities in grades 1 to 3. Utilizing existing adapted EGRAs allowed STS and LEARN to build upon the work of R4A and to increase the enumerator capacity to administer the assessments.

In 2019 and 2020, World Education and Humanity & Inclusion (HI) conducted adaptation workshops with local stakeholders and OPDs to revise EGRA tools for learners with disabilities—specifically, those who are deaf or hard of hearing, who are blind or have low vision, and who have intellectual or cognitive disabilities.[15] Following the adaptation workshop, R4A finalized a tool for each subgroup of learners with disabilities. These tools have since been approved for use by the GoN. In 2022, STS built upon the work done on the assessments to date by standardizing assessment protocols and investing in the recruitment and training of appropriate enumerators. STS also worked with World Education to develop a scoring protocol for the deaf or hard of hearing subtasks that allowed for the accurate calculation of both fluency and accuracy scores (**Appendix E: Deaf or Hard of Hearing Scoring**). The EGRAs include subtasks in measuring vowel identification, consonant identification, matra identification,[16] familiar word reading (for learners who are deaf or hard of hearing and with cognitive disabilities only, nonword reading (for learners who are blind or have low vision only), passage reading, reading comprehension, and listening or NSL comprehension (deaf or hard of hearing group only).

Learner Survey

STS developed a short learner survey, administered to each learner after completing the EGRA. The learner survey included questions about learners' family and household members; their levels of literacy and knowledge of braille or NSL; and their access to, comfort with, and use of technology in general. At endline, the learner survey included questions about specific technology and apps included in LEARN's EdTech matrix that learners might have used.

Teacher Survey

STS developed a teacher survey, administered to one teacher at each school at baseline and endline. The teacher survey included questions about teachers' family and household members, their levels of literacy and knowledge of braille or NSL; their access to, comfort with, and use of technology in general; any previous training they may have received in teaching learners with disabilities to read; and their knowledge, attitudes, and practices around EdTech use in the classroom and UDL. At endline, questions were added to triangulate teachers' participation in LEARN trainings and their satisfaction with them, as well as their access to and use of technology and apps included in LEARN's EdTech matrix.

Scalability Assessment Tool

STS built upon previous scalability work conducted during ACR GCD's 2014 Grant Competition to develop a scalability assessment tool (SAT) for the 2020 Grant Competition. The 2020 SAT is a combination of quantitative measures and qualitative reflections, based in a self-assessment, and grounded in current literature.

15 At baseline, enumerator trainers noted that the R4A braille stimuli used for the blind EGRA was missing a column of items in the familiar word subtask. This column was added back for LEARN evaluations. Though the projects used the same assessments, comparisons between LEARN and R4A results should be conducted with extreme caution.

16 Matra is a syllable (grapheme) formed by combining a consonant and vowel diacritic.

The SAT requires that awardees critically examine the maturity of their solutions, intended pathway for scale, and scalability-enabling conditions across five dimensions: effectiveness; equitability; market demand; financial sustainability; and transferability. LEARN completed the SAT self-assessment at both baseline and endline (see **Appendix H: Scalability Assessment Tool**).

OPD Interviews

To better understand unexpected outcomes of LEARN beyond the ACR results framework, STS created an interview protocol to be administered with key program OPD stakeholders. The interview protocol collected data on the partners' background with the project, their perspectives on project implementation, their perspectives on the scalability of the project, and successes and challenges related to project outcomes.

Data Collection

Enumerators and Enumerator Training

STS conducted in-person enumerator training for the baseline evaluation in March 2022 and for the endline in February 2023. LEARN hired eight enumerators at both timepoints, many of whom had R4A data collection experience. At endline, three of the eight enumerators had also participated in the LEARN baseline, including one deaf interpreter. Three others had R4A data collection experience. In February 2023, STS led an in-person five-day training to teach enumerators how to administer the LEARN endline tools and prepare them for data collection. Three LEARN team members supported STS's lead facilitators. Enumerators were divided into two groups: three enumerators focused on the EGRA for learners who are deaf or hard of hearing, and five enumerators focused on the EGRA for learners who are blind, have low vision, or have cognitive disabilities. Additionally, one native NSL user from the National Federation of the Deaf Nepal (NDFN) attended all five days of the training and served as a language expert to advise the deaf or hard of hearing enumerators on correct NSL. The training included an overview and practice of administering all subtasks in Tangerine®, a software used to collect EGRA data; and one practice day, in which all enumerators visited a non-sample school to practice administering the EGRA, learner survey, and teacher survey.

Data Quality Assurance

Throughout data collection, STS and LEARN followed the guidelines laid out in the *Early Grade Reading Assessment (EGRA) Toolkit, Second Edition* (RTI International, 2015) as appropriate. STS and LEARN regularly uploaded and reviewed data to better manage and track data collection issues and progress. LEARN staff ensured data collection procedures were followed and submitted daily reports to STS that noted the number and type of data collected each day and from which schools. STS cross-referenced this information against the uploaded data using Tangerine® software.

STS's data analysts then applied disposition codes to categorize the various issues or problems that emerged during the data collection process. These codes were used in determining cleaning rules that were incorporated into the database using syntax accordingly. Coding and flagging procedures helped to ensure that the various and nuanced contexts of data collection at the school level were sufficiently cataloged and considered during the data cleaning, analysis, and reporting processes.

Data Cleaning and Analysis

Analysis of quantitative data was performed using Stata version 16. STS cleaned the datasets using a standard protocol and quality control disposition codes. STS first conducted an analysis of all variables during data cleaning. STS also created composite scores by combining different variables from datasets that contribute to similar constructs. STS conducted final analyses to respond to each evaluation question, including a longitudinal comparison of baseline and endline EGRA scores for learners in each disability group assessed at baseline and a cross-sectional comparison of mean scores at baseline and endline for each EGRA subtask. Analysts tabulated responses from the teacher survey and compared responses with baseline results and program monitoring data, where possible. Statistical comparisons using t-tests and chi2 analysis were made between baseline and endline for learner samples as well as teachers. Statistical comparisons were not conducted for the longitudinal sample of learners with cognitive disabilities due to attrition (see **Limitations** and **Table 2** for more).

For the deaf and hard of hearing learners, analysts calculated weights based on learners assessed versus learners in attendance at baseline.[17] The same approach was followed at endline for deaf and hard of hearing learners for consistency. As the study utilized a census approach for the other two learner groups, a weight of 1 was applied to baseline and endline learners who were blind or low vision or had cognitive disabilities.

17 This is due to one baseline school—Kendriya Bahira Ma V. The head teacher only allowed data collection for one day; therefore, the enumerator was only able to assess 10 of the 67 students.

Limitations

Certain limitations should be considered when considering the results of the LEARN endline evaluation.

First, the longitudinal research design posed four main challenges.

- **No comparison group:** Longitudinal designs often require a comparison group who does not receive treatment to understand what gains might be expected due to natural progression through schooling as compared to gains resulting from programming.
- **Learning loss due to school breaks:** Because the evaluations spanned two academic years, impact measurement may include learning loss experienced during the school break between academic years.[18]
- **Evaluation timepoints misaligned with ideal implementation timeline:** Because the evaluation spanned two academic years, this might not be the implementation design that LEARN would intend to replicate or scale in the future and the impact measurement might not be emblematic of future implementation.
- **Difficulties tracking learners across academic years:** STS faced challenges in tracking learners across different grades. Because the project spanned multiple academic years, some baseline grade 3 learners graduated from the project in the second academic year. Attrition affected the group of learners with cognitive disabilities most severely; thus, longitudinal results are not reported with statistical significance for this group.

Second, the endline evaluation is limited in its ability to make claims about the causality between outcomes and the project's dosage. While data from teacher trainings has been incorporated as much as possible, data around learner exposure to the EdTech and changes in classroom practices is limited. This is in part due to the relatively small sample size and the short implementation period of the project, which limited learners' exposure to EdTech. Because of delays with the GoN, the project had to postpone implementation for a year before it could begin engaging with stakeholders.

Third, the evaluation focused on learners with identified disabilities in special schools and mainstream schools with resource centers. Learners in the mainstream school system who may have unidentified functional difficulties or disabilities were excluded from this assessment, as were mainstream learners without disabilities. As a result, the evaluation does not study how the LEARN project impacted these learners. This same limitation applies to conclusions about teachers, as teachers in resource classrooms and special schools may have a different background and training profile as compared to teachers in mainstream schools.

Fourth, while not necessarily a limitation, an important consideration in the interpretation of findings is the proportion of learners who responded "don't know/no response" to learner survey questions. This was especially true of learners with cognitive disabilities.

18 The baseline in March 2022 took place during an academic year that had been abbreviated (school year 2078 was from mid-June 2021 to Mid-April 2022, for a total of 10 months). The academic year ended soon after the baseline, and the following academic year proceeded as usual (academic calendar year 2079 was from mid-April 2022 to mid-April 2023, for a total of 12 months).

Finally, as the LEARN project changed throughout implementation, specific interventions received less emphasis, especially parent and caregiver training. As a result, evaluation questions related to parent and caregiver training activities have been dropped from the endline evaluation. These questions include the following:

6 **To what extent did parents and caregivers receive the intended dosage of training?**

7 **What were parents and caregivers' levels of satisfaction with the project's trainings?**

- **a.** What do parents and caregivers believe could be improved about the trainings?
- **b.** How well did the trainings meet parents and caregivers' specific needs?

8 **To what extent did LEARN parents and caregivers change their knowledge, attitudes, and practices on the use of EdTech for learners with disabilities?**

- **a.** Did parents and caregivers have increased knowledge and improved attitudes on how EdTech can support learners' reading and/or language skills development?
- **b.** Did parents and caregivers have increased knowledge and improved attitudes on how they can support learners' reading and/or language skills development?
- **c.** How and to what extent did parents and caregivers utilize project EdTech solutions with their children at home?

Findings

This section presents findings from endline data collection, beginning by describing the teacher and learner samples. The report then presents findings from the teacher survey, project data, interviews from OPD partners, the SAT tool, and finally concludes with EGRA results from learners who are blind and have low vision, learners with cognitive disabilities, and learners who are deaf or hard of hearing. Implications of these findings are discussed in more detail in the Evaluation Questions Discussion section.

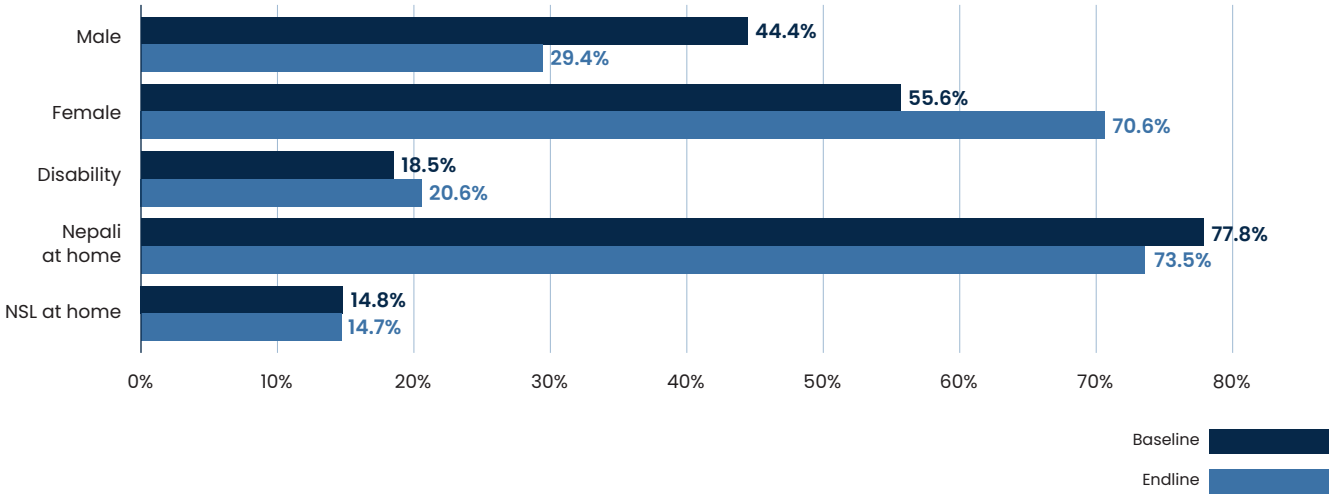
Endline Sample Description

Teacher Sample

The endline evaluation included a sample of 34 teachers from special schools and resource classrooms. At endline, 41.2 percent of teachers reported having learners who are deaf or hard of hearing in their classes; 41.2 percent reported having learners who are blind or have low vision; and 52.9 percent reported having learners with cognitive disabilities in their classrooms. As shown in Figure 1, the endline sample was 70.6 percent women and 29.4 percent men; men comprised a smaller percentage at endline than at baseline. There were comparable proportions of teachers who identified as someone with a disability at baseline and endline—most of these individuals served as teachers from special schools.[19] There were also comparable proportions at baseline and endline of teachers who speak predominantly Nepali at home (approximately 75 percent) and comparable proportions who use NSL at home (approximately 15 percent).

FIGURE 1

Baseline and Endline Teacher Demographics



19 According to the CEHRD 2021-2022 flash report, the share of female teachers in basic education (grades 1-5) is 73.6 percent. No information provided about disability or language of teachers. However, given that teachers were exclusively from special schools or resource classrooms, it is highly likely that there are far more teachers with disabilities in this sample compared to mainstream schools. Of the 20.6 percent of teachers in the sample who identified as having a disability, about half identified as having a hearing disability and half identified as having a vision disability. One teacher indicated they had a physical disability.

Learner Sample

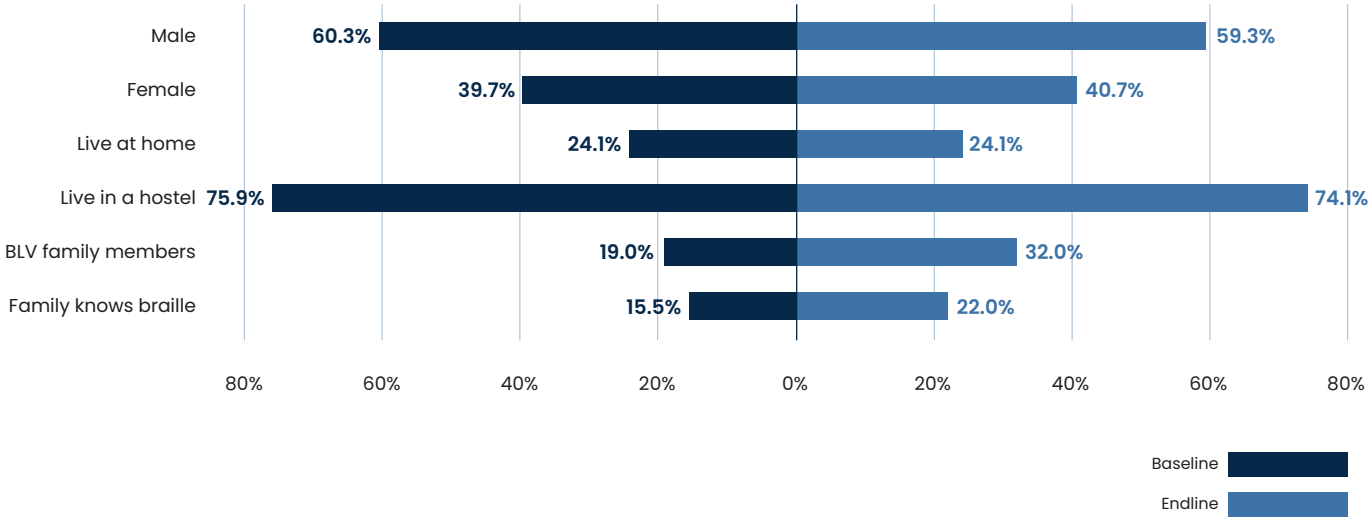
A total of 235 learners were sampled for endline. Learners identified as having a disability were categorized into sample groups accordingly: learners who are blind or have low vision (54 learners), learners who are deaf or hard of hearing (103 learners), and learners with cognitive disabilities (78 learners). Of the 235 learners evaluated at endline, 190 had also participated in the baseline evaluation.

Learners who are Blind or have Low Vision

The demographics of learners who are blind or have low vision was relatively similar between baseline and endline, as shown in Figure 2. The percentage of learners who are male and female, whether they lived at home or in a hostel,[20] if their family was also members who were blind or had low vision, and if their family members knew braille was comparable at both time points. None of these differences were statistically significant.

FIGURE 2

Demographics of Learners who are Blind or have Low Vision, by Time Point



However, there was a statistically significant difference in the distribution of learners' grade levels between baseline and endline, as shown in Table 5. Due to the progression of learners into the next academic year, there was a higher proportion of grade 4 learners at endline (20.4 percent) compared to baseline (0 percent).

20 Because there are so few schools with resource classes or special schools in Nepal, schools are located far from many children's homes. Learners reside in hostels if they do not live near the school.

TABLE 5
Grade Distribution of Learners who are Blind and Low Vision, by Time Point

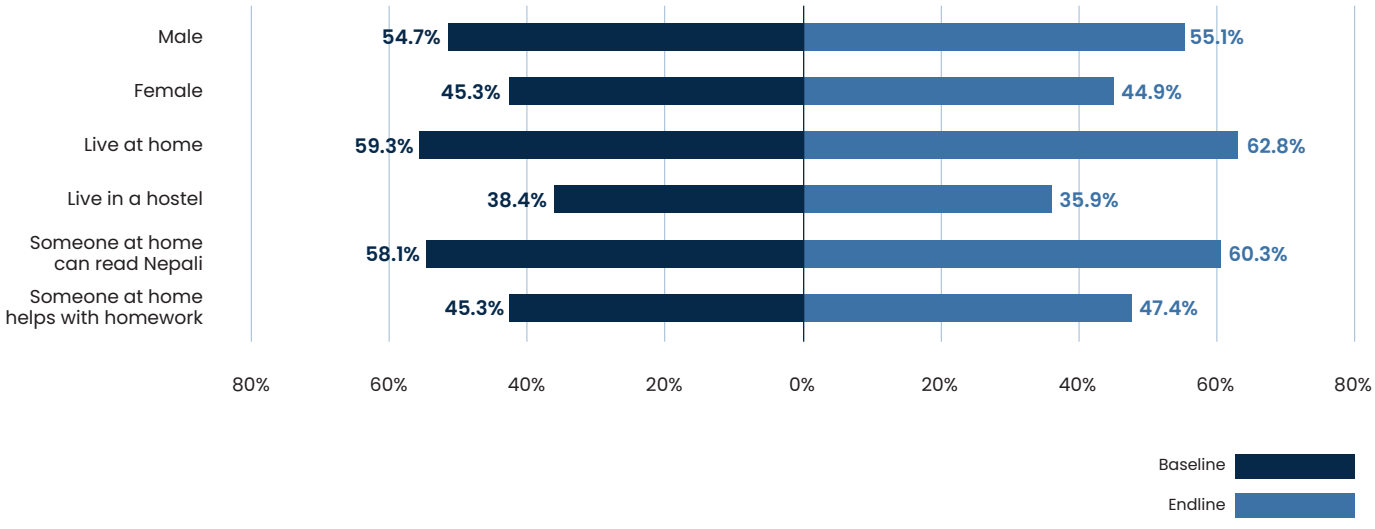
Grade	Baseline (n=58)	Endline (n=54)
ECD*	34.5%	24.1%
Grade 1*	29.3%	13.0%
Grade 2*	15.5%	25.9%
Grade 3*	20.7%	16.7%
Grade 4*	0.0%	20.4%

Note: Differences between the entire distribution of learners by grade at baseline and endline are statistically significant at $p<0.05$ and are denoted with an asterisk (*).

Learners with Cognitive Disabilities

The percentage of male and female learners with cognitive disabilities included in the baseline sample was similar to that at endline. In addition, whether these learners lived at home or in a hostel, if their family also had household members who could read Nepali, or had someone at home who could help with homework remained relatively similar (see Figure 3).

FIGURE 3
Baseline and Endline Demographics, Learners with Cognitive Disabilities



However, there was a statistically significant difference in the distribution of learners' grade levels between baseline and endline (see Table 6). A higher proportion of learners were found in grade 1 at endline (2.3 percent compared to 9.0 percent), and there was a lower proportion of grade 6 learners at endline (66.7 percent compared to 95.3 percent at baseline).

TABLE 6
Grade Distribution, Learners with Cognitive Disabilities

Grade	Baseline (n=86)	Endline (n=78)
ECD*	1.2%	7.7%
Grade 1*	2.3%	9.0%
Grade 2*	1.2%	2.6%
Grade 3*	0.0%	6.4%
Grade 4*	0.0%	7.7%
Grade 6*	95.3%	66.7%

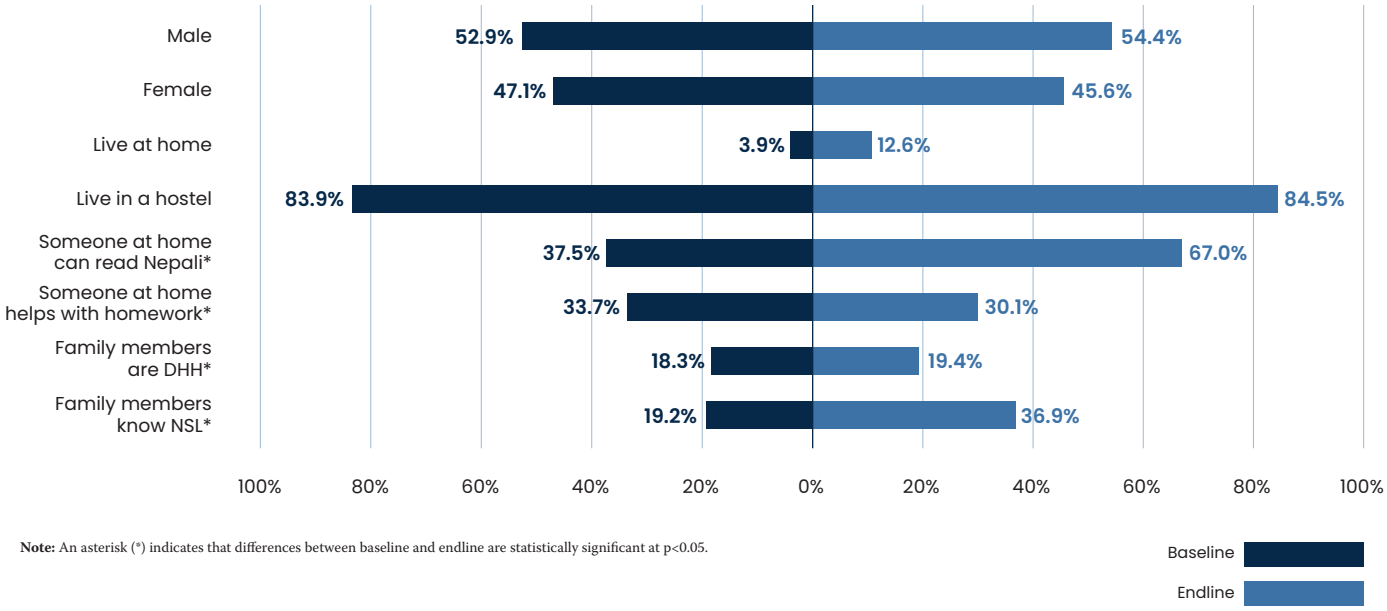
Note: Differences between the entire distribution of learners by grade at baseline and endline are statistically significant at $p<0.05$ and are denoted with an asterisk (*).

In addition to grade level, age is an important consideration for learners with cognitive disabilities as many are often in school beyond traditional grade levels. For example, at endline, 55.1 percent of learners with cognitive disabilities were between the ages of 14-19, and an additional 2.6 percent were aged 20 and older.

Learners who are Deaf or Hard of Hearing

Overall, 90 of the 103 learners who are deaf or hard of hearing were assessed at both baseline and endline. There were no differences in the proportion of male and female learners, and those who live at home versus in a hostel between baseline and endline. However, there was a statistically significant increase in the proportion of learners who are deaf or hard of hearing and have someone at home who can read Nepali, who help with homework, who have family members who are deaf or hard of hearing, and whose family members know NSL (see Figure 4). Given the relatively high resampling rate, these significant differences are likely to be factors of learners' increased responses rate to these questions rather than actual shifts in demographics, as the proportion of "don't know" responses decreased between baseline and endline.

FIGURE 4
Baseline and Endline Demographics, Learners who are Deaf or Hard of Hearing



Note: An asterisk (*) indicates that differences between baseline and endline are statistically significant at p<0.05.

There were also statistically significant differences in the distribution of learners' grade levels between baseline and endline (see Table 7). There were fewer ECD and grade 1 learners at endline compared to baseline, but a higher proportion of grade 4 learners. This may be due to baseline learners progressing through grades over academic years.

TABLE 7
Grades of Learners who are Deaf or Hard of Hearing

Grade	Baseline (n=284)	Endline (n=235)
ECD*	4.8%	2.9%
Grade 1*	23.1%	19.4%
Grade 2*	31.7%	26.2%
Grade 3*	40.4%	39.8%
Grade 4*	0.0%	9.7%

Note: Differences between the entire distribution of learners by grade at baseline and endline are statistically significant at p<0.05 and are denoted with an asterisk (*).

Endline Data Collection Results

This section presents findings from all endline evaluation and project data collection tools.

Teacher Survey Results

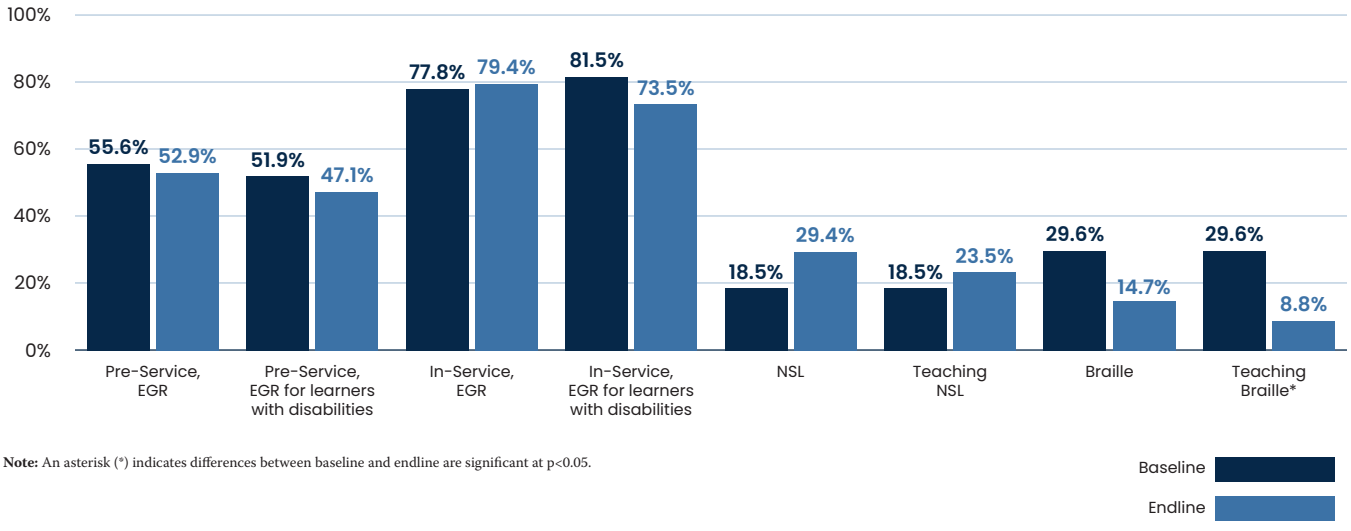
At baseline and endline, teachers were given a teacher survey. Within this survey, teachers were asked questions about their demographics, pre-service and in-service training in supporting learners with disabilities; use of technology outside of the classroom; participation and satisfaction with LEARN trainings; and UDL, individualized education programs (IEPs), and technology and digital literacy. Teacher demographics have been outlined in the Teacher Sample section.

Pre-Service and In-Service Training

During the survey, teachers were asked about their exposure to pre-service or in-service teacher training on supporting learners with disabilities, as a measure of exposure to these concepts separately from participating in the LEARN project. At both baseline and endline, over three quarters of teachers reported having some sort of in-service training for teaching learners with disabilities EGR concepts. This proportion may be so high because the project sample specifically included special schools and resource classes. These teachers may have more exposure to these concepts compared to mainstream teachers. As shown in Figure 5, a statistically significantly lower proportion of teachers at endline (8.8 percent) reported being trained in teaching braille than at baseline (29.6 percent).[21] While the percentage of teachers who reported taking formal lessons or training in NSL increased, and the percentage of teachers reporting being trained on teaching NSL increased, neither of these changes were statistically significant.

FIGURE 5

Teachers Reporting Training in Education for Learners with Disabilities



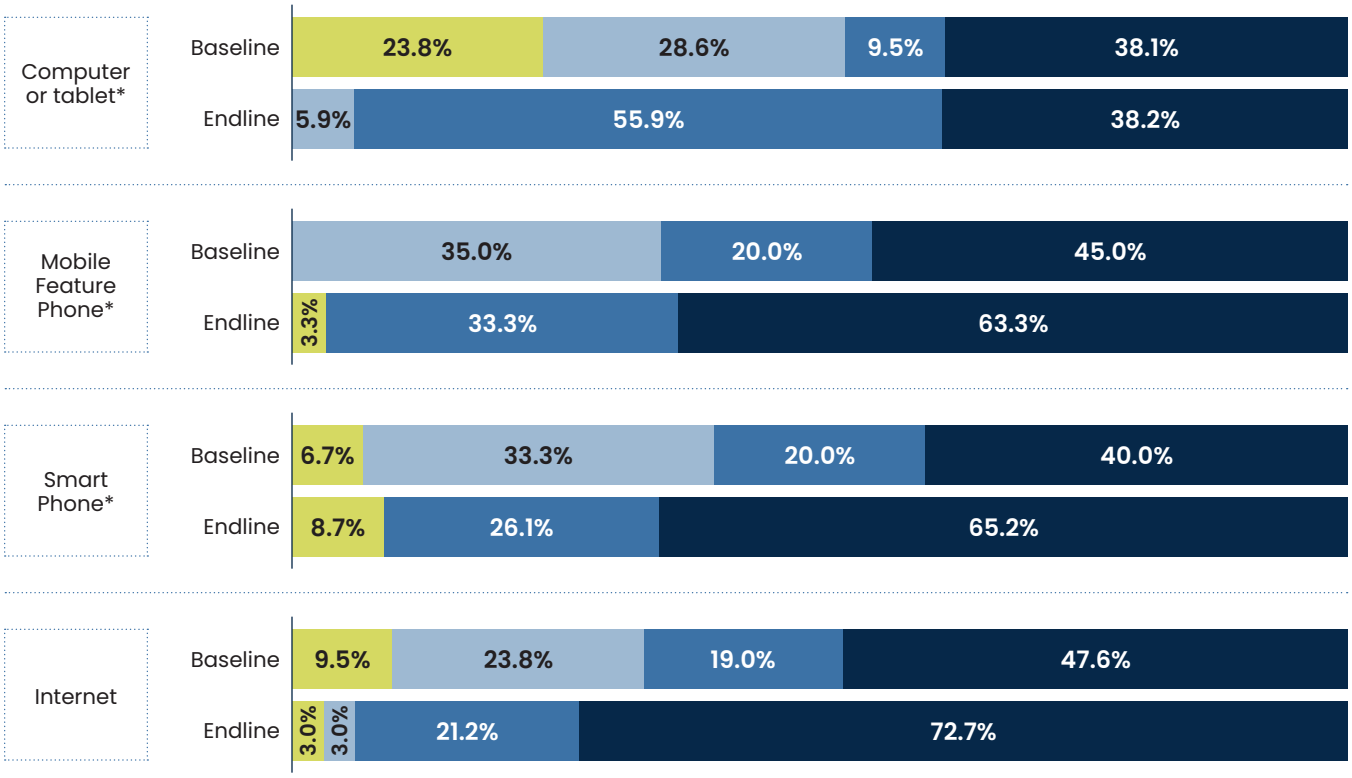
Note: An asterisk (*) indicates differences between baseline and endline are significant at p<0.05.

21 Program records indicate that this is likely due to teacher turnover among teachers of learners who are blind or have low vision. Some teachers at baseline were community-hired teachers who were replaced due to politics.

Technology Outside the Classroom

At baseline and endline, teachers were asked questions about various technologies to understand general changes in teacher use of devices. As shown in Figure 6, the use of computers, tablets, mobile feature phones, and smartphones significantly increased in frequency between baseline and endline.

FIGURE 6
Teacher Use of Technology, Baseline to Endline

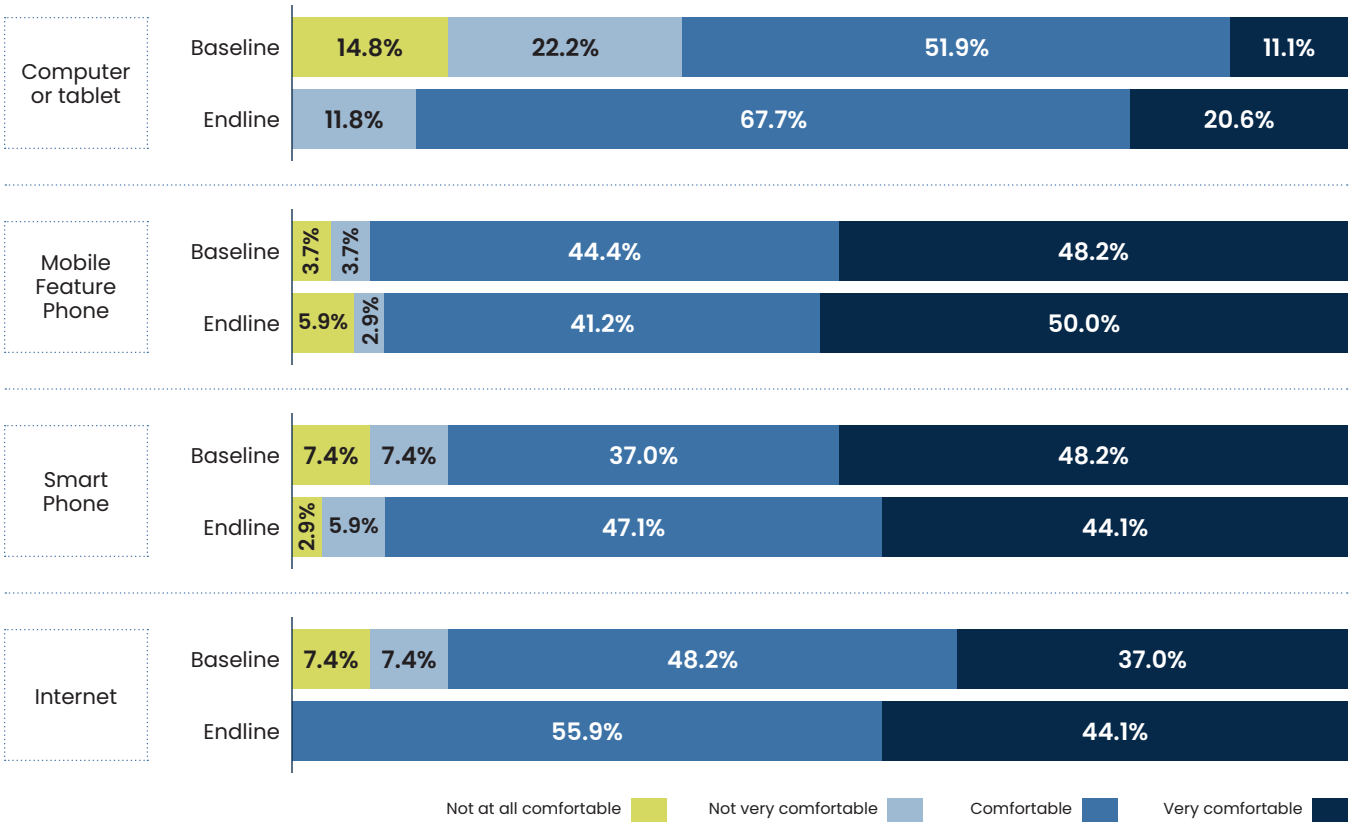


Note: An asterisk (*) indicates that differences in baseline and endline distributions are statistically significant at $p<0.05$.

When teachers were asked about their comfort in their personal use of technology, their response rates did not significantly change from baseline to endline for any technology (see Figure 7).

FIGURE 7

Teacher Comfort Using Technology, Baseline to Endline



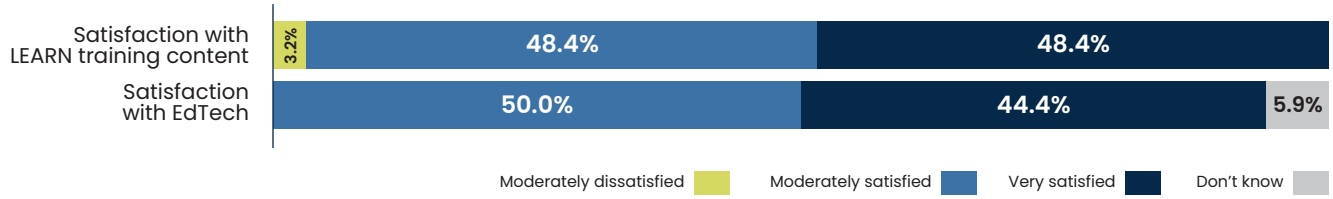
LEARN Training Participation and Satisfaction

Of the 34 teachers surveyed at endline, 73.5 percent reported attending the three-day teacher training on UDL;[22] 64.7 percent reported attending the two-days refresher training on UDL; and 17.7 percent reported attending the 10-day NSL training – held specifically for teachers at special school for learners who are deaf. Teachers were also asked about their satisfaction with the trainings LEARN provided. Most teachers were moderately or very satisfied with LEARN's training content and with the EdTech introduced in trainings (see Figure 8).

22 One teacher per school attended the UDL and NSL trainings, thus not all teachers at every school would have attended a LEARN training.

FIGURE 8

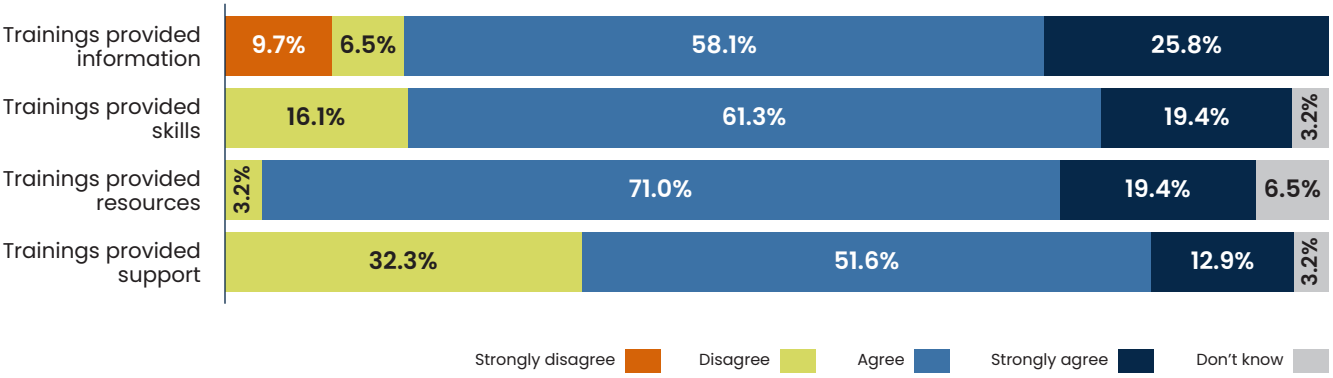
Teacher Reported Satisfaction with LEARN Trainings



Most teachers agreed that trainings provided information, skills, resources, and support (see Figure 9). Fewer teachers agreed that trainings provided support.

FIGURE 9

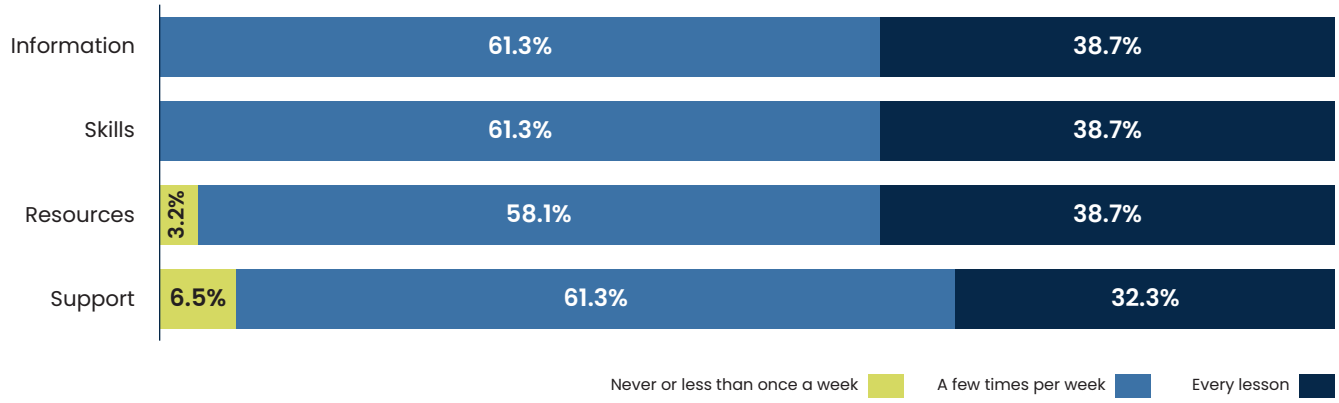
Teachers' Reported Outcomes with LEARN Trainings



Qualitative responses from teachers illuminated what kinds of information, skills, resources, and support participants gained from training. Teachers reported learning new information about UDL, teaching techniques, inclusive education, IEP use, and teaching with tablets. Teachers referenced learning how to use games as a teaching method, learning EdTech skills, learning visual and non-visual teaching methods, preparing lesson plans, learning to teach through technology, and learning braille-related skills. Teachers listed resources such as teaching materials, playing materials, tablets, LED screens, pen drives, and the internet as helpful. Teachers shared that support included engagement with and representation of learners with disabilities, learning to teach from videos, and technology support.

Finally, teachers provided information on how often each week they used the information, skills, resources, and support gained from LEARN trainings (see Figure 10). Most teachers reported using information, skills, and resources a few times a week, and more than one-third of teachers reported using these elements in every lesson in the last week. Only 3.2 percent of teachers reported using the resources learned less than once per week or never; 6.5 percent reported using the support gained from trainings less than once per week or never.

FIGURE 10
Teachers' Reported Use of Elements Learned in LEARN Trainings



UDL, IEPs, and EdTech

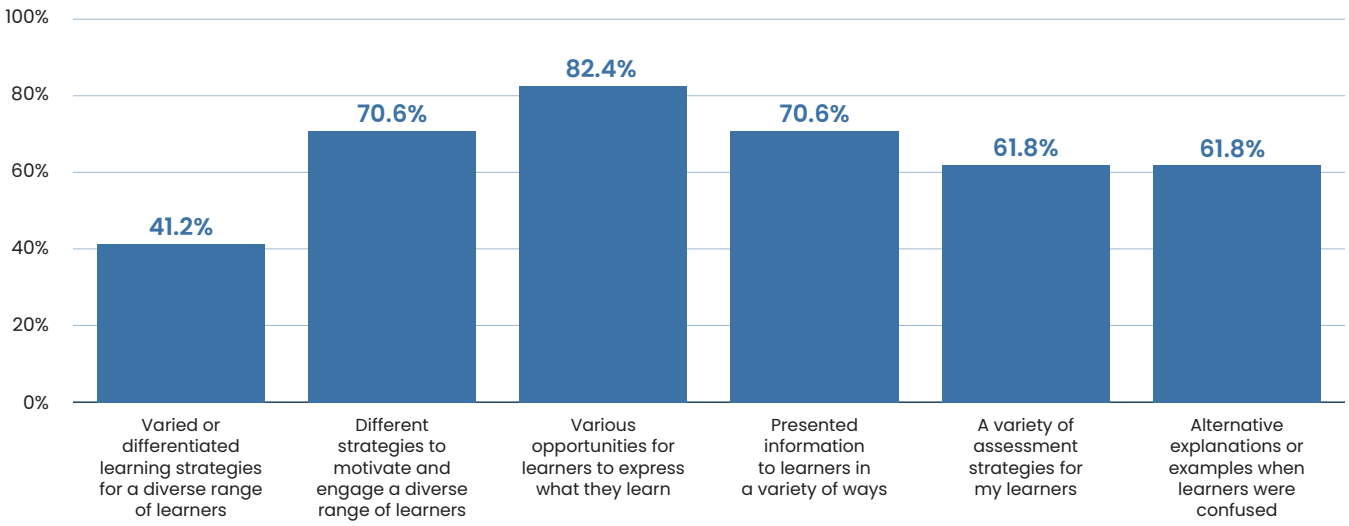
Teachers answered a set of KAP questions related to UDL, IEPs, and EdTech. Questions related to teachers' abilities to provide differentiated instruction and instruction related to the principles of UDL. This includes allowing learners to express what they know in a variety of ways, teachers presenting information to learners in various ways, and teachers motivating and engaging learners in multiple forms. As shown in Table 8, baseline and endline teacher KAP scores were similar for support for learners with disabilities, use of UDL, IEPs, and technology.

TABLE 8
Teacher Knowledge, Attitudes, and Practices Results

KAP score (0–3)	Baseline	Endline
Knowledge	2.1	2.1
Attitude	2.3	2.3
Practice	2.3	2.3
UDL	2.3	2.3
IEP	2.2	2.2
Technology	2.3	2.4

The most common UDL principal teachers cited using in the last five days was various opportunities for learners to express what they learned (see Figure 11).

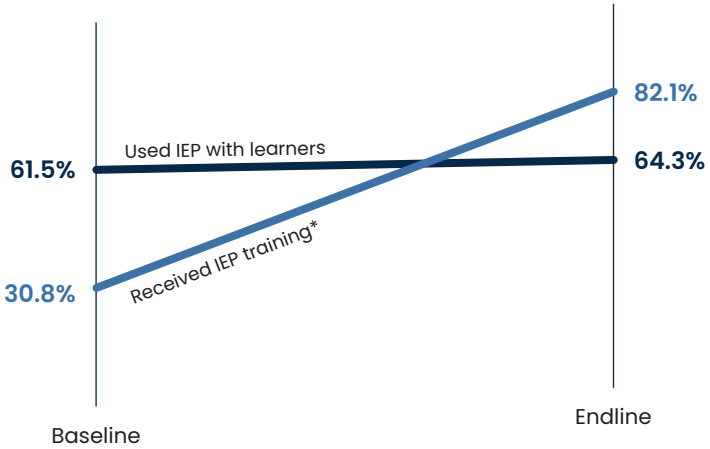
FIGURE 11
Teachers' Reported Use of Universal Design for Learning Practices



A statistically significantly higher proportion of teachers at the endline reported that they had received training on using IEPs (82.1 percent) than had baseline teachers (30.8 percent), as seen in Figure 12. This is likely because the sample targeted resource class and special school teachers, who were already more focused on supporting learners with disabilities. However, the percentage of teachers using IEPs with learners stayed approximately the same across time points. Future iterations of the project might conduct more targeted research into teachers' use of IEPs in the classroom over the course of program implementation.

The most frequently cited forms of EdTech that teachers learned about and used were digital books or libraries (see Figure 13).[23]

FIGURE 12
Teachers' Reported Training and Use of Individualized Education Plan, by Time Point

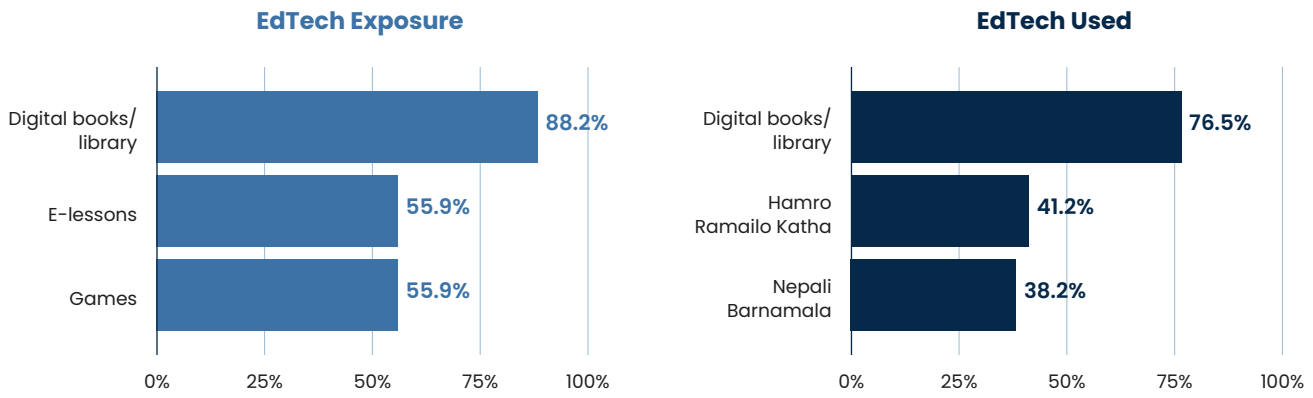


Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

23 Hamro Ramailo Katha and Nepali Barnamala are apps that were provided to teachers by LEARN in their EdTech matrix.

FIGURE 13

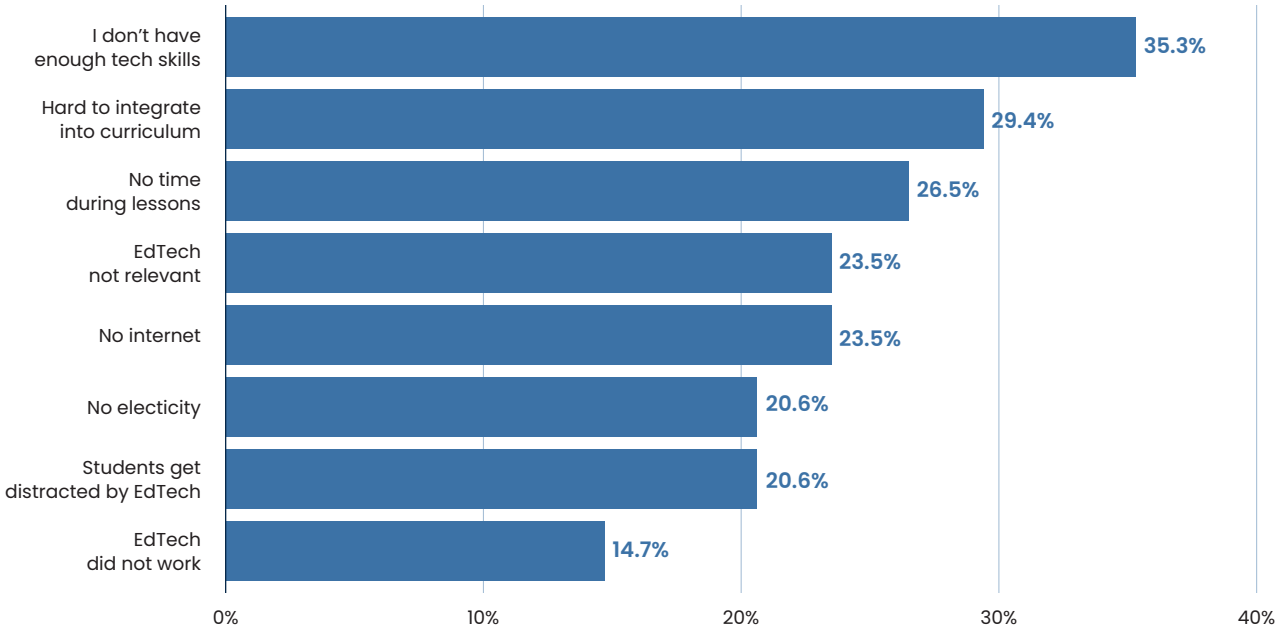
Teachers' Reported Exposure to and Use of EdTech



Teachers were also asked about barriers to using the EdTech in the classroom. Teacher responses are outlined in Figure 14. More than one-third (35.3 percent) of teachers reported that their own lack of tech skills was a barrier to using the EdTech during lessons; 29.4 percent said it was challenging to integrate the EdTech into the curriculum; and just over one in four (26.5 percent) teachers said they did not have time during lessons to integrate the EdTech.

FIGURE 14

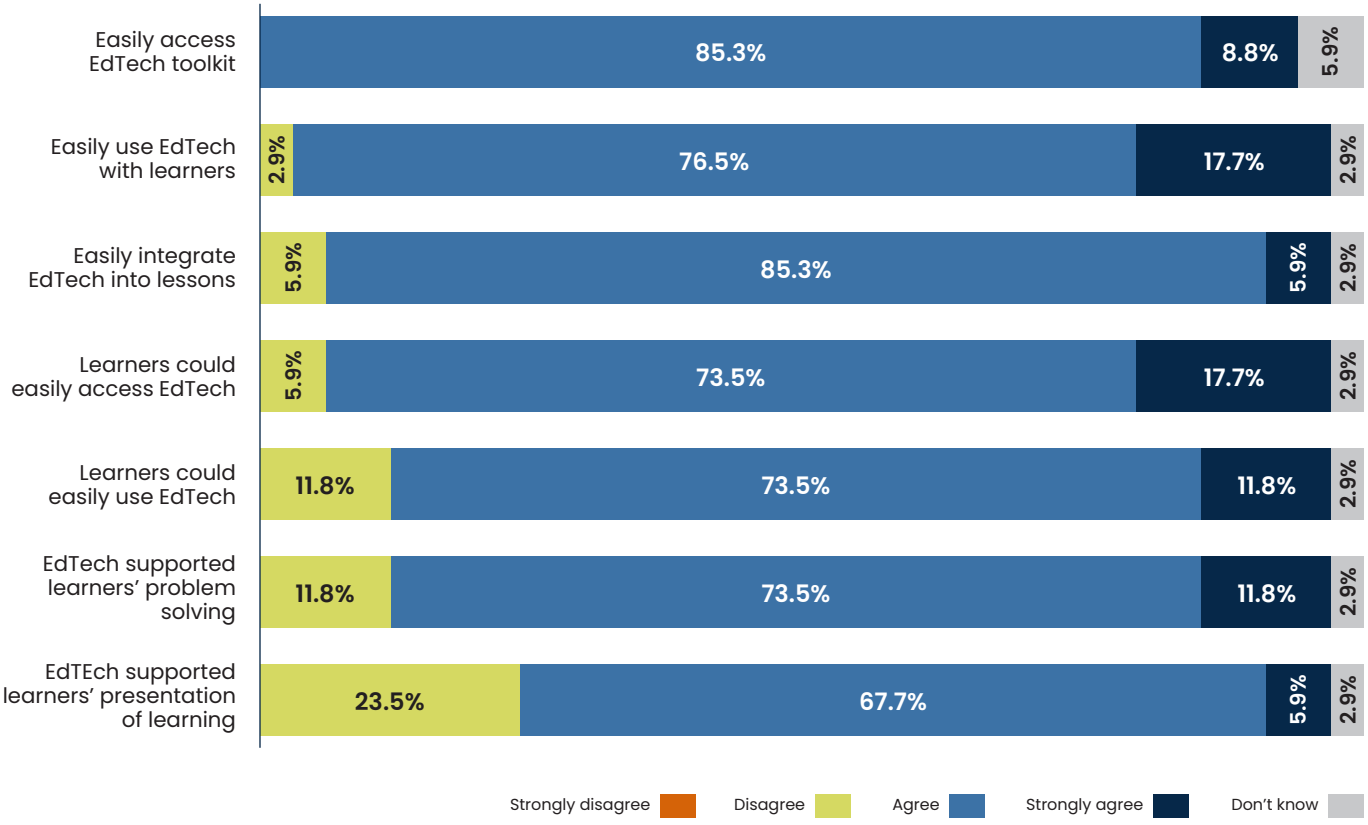
Teachers' Reported Barriers to Using EdTech in Class



Finally, teachers were asked about EdTech outcomes related to UDL. Nearly all (94.1 percent) teachers agreed or strongly agreed that they could easily use the EdTech Toolkit (see Figure 15). However, more teachers disagreed that their learners could use the EdTech toolkit.

FIGURE 15

Teachers' Reported EdTech Outcomes



Project Data

For the endline evaluation, LEARN provided STS with teacher training attendance records from all schools, as well as data from classroom observations conducted in early 2023. All project data and indicators are summarized in **Appendix A: ACR GCD UnrestrICTed Results Framework Indicators**.

Throughout the project, 395 teachers received training in UDL, and 33 teachers received training in NSL. These trainings began in June 2022 and concluded in November (Table 9). Given this, STS estimates that 83.8 percent of teachers trained in July 2022 had been exposed to UDL principles for seven months before the endline evaluation in February 2023. Teachers trained in NSL had been exposed to NSL training content for a maximum of five months before the endline data collection.

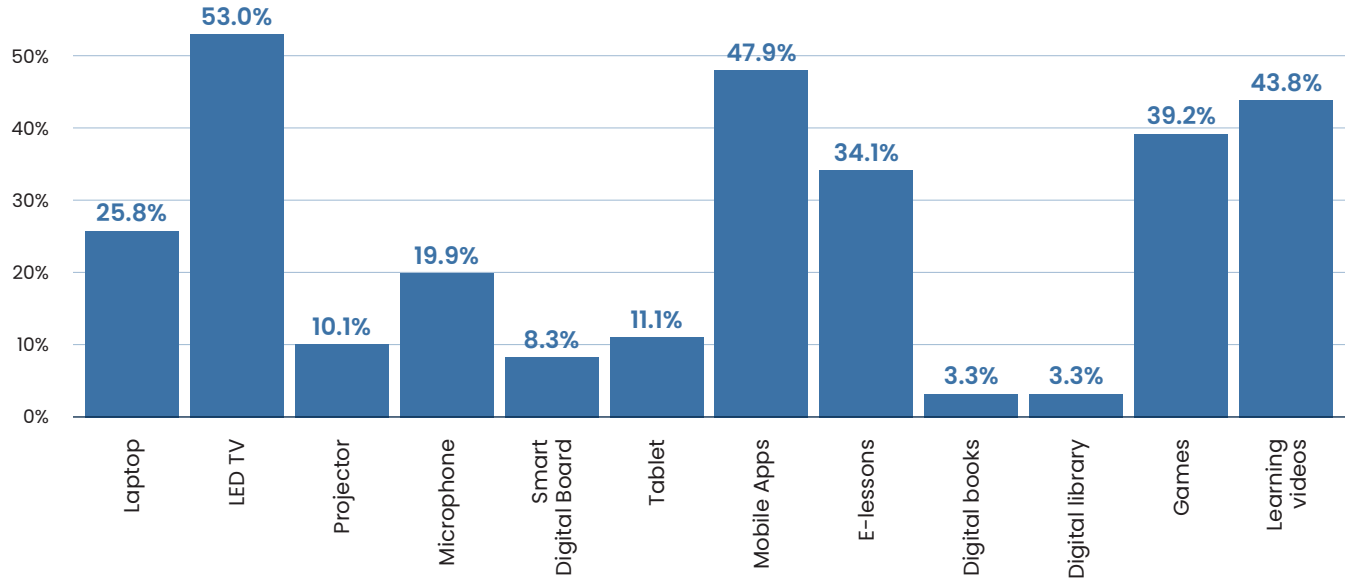
TABLE 9
Percentage of Teachers Trained in UDL and NSL by Month

Training type	June	July	August	Sept.	October	November	Total
UDL (n=395)	6.6%	83.8%	4.6%	5.1%	-	-	**100%**
NSL (n=31)	-	-	-	-	48.4%	51.6%	**100%**

In early 2023, LEARN conducted 221 classroom observations in 150 schools. These observations collected data on teachers' application of UDL principles and the EdTech in the classroom. Of the 221 observations, 73.4 percent occurred in mainstream schools, 18.7 percent in mainstream schools with resource classes, and 7.9 percent were in special schools. Most observations (54.3 percent) were of grade 1 classes, 21.7 percent were in grade 2 classes, 14.0 percent were in grade 3 classes, and 10.0 percent were in ECD classes. Figure 16 outlines teachers' most used forms of the EdTech, the most prevalent of which was a LED screen (present in 53.0 percent of observations). Overall, LEARN observed 79.3 percent of teachers using the EdTech as intended in the classroom.[24]

24 This was defined as the EdTech being used in at least three of the following ten ways: teacher refers to EdTech toolkit provided; teacher uses technology to present material to learners; teacher integrated technology into lesson; teacher engaged learners in classroom by using technologies; teacher used technology as a communication tool; technology was accessible for learner use; learners used technology to learn basic reading skills (eight language components); learners used technology to enhance problem solving or creativity; learner use technology to present their learnings; learners use technology as intended.

FIGURE 16
Forms of EdTech Used by Teachers During Classroom Observations



Partner Interview Results

For endline, STS collected information from four of the LEARN project's implementing partners—CIL Pokhara, DEC Surkhet, NDWA Kathmandu, and Prerana Sarlahi. Because of busy schedules during program close-out, in-person interviews were not possible. Instead, STS requested that partners complete a document with written responses to interview questions. Responses were provided in English.

Successes

Partners provided their thoughts on the successes of the LEARN project. These included close coordination with partners, schools, and government at the local level; the introduction of UDL concepts for teachers; the provision of high-tech and low-tech materials in schools; a new pedagogy that supports learners with disabilities; opportunities for teacher engagement; and review of demands for continuation or scale-up of project. One comment encapsulated these themes well:

> *Wi-Fi connection, high-tech and low-tech materials have been supported in all the schools, and UDL training has been provided to the schoolteachers, head teachers, SMC, PTA, Ward Chair, etc., which has made a great contribution to the learning and language skills of the early grade school students from [grades] 1 to 3. There is also a regular meeting with the local government and government officials. There is great support, motivation, and leverage from the schools and local government in the implementation of the intervention.*

The most frequently referenced successes concerned the close coordination between partners and local government. Partners indicated frequent joint monitoring visits to schools from both local and provincial ministry officials. In some cases, this resulted in greater ownership of the project and a deeper understanding of the importance of inclusive education and UDL concepts by local government officials.

Partners also stressed changes in teachers' approaches to engaging with learners with disabilities resulting from the UDL trainings. As one partner shared:

> *Students with learning difficulties can be found in most schools and the teachers face problems in addressing them. The training has sensitized the teachers on disability and the need of inclusive education through UDL. The training on UDL has helped the teachers to understand the interest and abilities of those students and prepare plans to enhance their learning capabilities.*

Challenges

Partners indicated challenges with the LEARN project, primarily related to implementation. These included the lack of appropriate technology or infrastructure for technology; coordination difficulties; the short duration of the project; challenges for teachers, including increased workload with new technology; generational difficulties in adapting tech to the classroom; and limited engagement with school management committees (SMCs) or parent teacher associations (PTAs).

Most infrastructure issues, such as power outages or lack of back-up electricity supplies, were frequent—and outside the project's control. However, several partners mentioned that not all content provided to teachers on a pen drive was compatible with the smart screens provided to classrooms, limiting which materials teachers could use. In addition, the ability to cast to the smart screen was dependent on internet availability, which limited the device's functionality for the classroom. Beyond these issues, one partner provided a clear example of specific infrastructure considerations and challenges:

> *We supported the schools by providing Wi-Fi connectivity where there was no internet facility. Later on, we found that in the rest of the school, there was an internet facility, but the routers were in the headteacher's office or in the high classes [upper basic and secondary school]. We installed Smart TV (screens) in the early grades, but later on, we found that the internet did not reach the classes where we installed Smart TV. So later on, we again supported secondary routers in the schools.*

Many partners mentioned coordination difficulties related to starting the project at the end of COVID restrictions, with severe delays due to seeking approval from the Social Welfare Council (SWC). Others also mentioned that "there was no coordination between technical and implementing partners until mid-term," making implementation challenging. These challenges resulted in an abbreviated implementation period. Partners pointed out that this made introducing UDL concepts into teaching methods difficult. Partners viewed these as complex ideas that were often new to teachers, who need extended support to integrate them into their lessons.

Recommendations

When asked for recommendations, partners provided several suggestions for improving the LEARN project in the future. These included increased time for teacher training; closer coordination with stakeholders; extending of the project duration to three or five years; expanding the project implementation area; and providing a better understanding of technology infrastructure requirements.

Partners stressed the importance of teacher training in UDL, with one partner commenting that, "the old concept of teaching persons with disabilities in a segregated manner is still prevalent in our society." Specific suggestions included extending teacher training to "at least five days with maximum opportunity for practical sessions," providing targeted mentoring and coaching in resource classrooms, offering sign language training and interpreters to other teachers and staff beyond head teachers, and expanding teacher training to all primary teachers at project-supported schools.

In terms of improving coordination with stakeholders, many partners suggested better outreach and engagement with local government officials, SMCs, and PTAs from the start of the project to ensure sufficient buy-in for activities.

Scalability Assessment Tool Results

As part of the ACR GCD 2020 Grant Competition, STS developed a SAT that combines quantitative measures and qualitative reflections. Awardees used this tool to critically examine the maturity of their solutions, intended pathway for scale, and scalability-enabling conditions across five dimensions: effectiveness, equitability, market demand, financial sustainability, and transferability. In each dimension, projects would answer a series of questions where they could rate themselves on a scale of 0 (not at all) to 3 (to a large extent). The LEARN project completed the SAT at the project's baseline and endline (see **Appendix H: Scalability Assessment Tool**).

Dimension 1: Effectiveness

The effectiveness dimension evaluates the extent that the existing evidence base proves a solution's ability to reach its intended results, considering stakeholders' and beneficiaries' perceptions of the solution's benefits, as well as evidence of favorable cost-benefit and cost-efficiency ratios. For this dimension, the LEARN project's self-evaluated score went from a "4" at baseline to a "10" at endline. The biggest change being around visible impact and an emotional appeal to the LEARN project's impact (see **Appendix H: Scalability Assessment Tool**).

On its impact, LEARN shared:

> *The teachers are now using the UDL strategies and the technologies (low-tech and high-tech) in their classrooms, and changes in attendance and engagement of the students in the classroom are evident. The teachers have shared that the technologies have catered to the auditory and visual needs of the children. It is clear through observations in classrooms that the solution has provided the teachers multiple ways to teach, and teachers report it has accelerated the student's participation and learning.*

Additionally, the LEARN project shared that there was an emotional appeal to the project's solution by both teachers, schools, and the GoN. The LEARN project shared:

> *[Teachers] have expressed that such support needs to be continued as it has added benefit for the children in their learning especially for children with disabilities. Furthermore, the local government, provincial government, training centers and education units have also acknowledged the impact of technology on learning and have requested technical support to continue. The solution has also received a significant amount of media coverage in Nepal, demonstrating the emotional appeal of making learning more engaging for children, especially children with disabilities, using ICTs.*

Dimension 2: Equitability

The SAT's equitability dimension examines if the solution intends to demonstrate equitable outcomes for beneficiaries, including between women and men, girls and boys, people from diverse social contexts, and people with different types of abilities or functional challenges. The LEARN project rated its solution highly on several aspects of equitability at endline, going from a total score of "7" at baseline to "12" at endline (see **Appendix H: Scalability Assessment Tool**).

The largest changes were seen related to LEARN's solution being accessed equitably by individuals regardless of disability status. On this aspect, LEARN shared:

> *The concept of UDL stresses that **all** children can read when their needs are identified, and support is provided on the basis of their needs. The variety of resources that are provided and the accessibility features of the technologies have helped in catering to the needs of children with visual and hearing impairments, children with neuro developmental disabilities and multiple disabilities. However, the solution may not fully meet the needs of students with multiple, severe disabilities and high support needs.*

Dimension 3: Market Demand

The SAT's market demand dimension assesses if there is market demand for the solution or product, both from individual users as well as governmental or stakeholder perspectives. LEARN's self-assessment of this dimension went from a "3" to a "6," with greatest gains related to evidence of user demand for LEARN's solution. On this, LEARN shared:

> *Demand can be seen by the willingness of schools and local governments to invest or commit to invest to further and expand the project. Accessibility is a major challenge for people with disabilities and there is a significant need and demand for accessibility resources in Nepal.*

Dimension 4: Financial Sustainability

The financial sustainability dimension looks at the way a solution can sustain different funding mechanisms in the future, as well as whether scaling the solution is financially feasible. On this dimension, the LEARN project went from a total score of a "6" at baseline to a "9" at endline (see **Appendix H: Scalability Assessment Tool**). The most significant gains were in funding agencies acknowledging the solution as important. On this, the LEARN project shared that the areas of UDL and EdTech had begun to be identified as an area of focus for funders in Nepal, who had begun to incorporate these into their project design.

Dimension 5: Transferability

The SAT's transferability dimension examines if the characteristics of the solution are conducive to implementation with a larger or different audience. Specifically, transferability assesses if scale-up requires modifications that change the solution's effectiveness, the complexity of the solution, the adaptability of the solution's components to pre-existing systems, and the organizational infrastructure needed to implement the solution.

For this dimension, the LEARN project's self-evaluation score went from a "10" at baseline to a "13" at endline (see **Appendix H: Scalability Assessment Tool**). Most of these gains were related to the solution being easily added to existing systems, as well as being effective as a scaled-up solution. On these aspects, the LEARN project shared:

> *Yes, the components, products, and the activities can be easily added in any system because it is user-friendly and is easy to integrate. It is also open source so it can be easily adapted as required. The solution is likely to be effective in scale-up; however, some backstopping is necessary. In addition, as many of the challenges encountered are on the user side with limited digital literacy and ICT familiarity among some teachers, additional support to users would be helpful.*

However, LEARN's score did go down between baseline and endline on one question: "Is your solution implementable at scale within your organization's existing infrastructure?" During baseline, LEARN self-evaluated their solution as with a "2" (somewhat) and shared:

> *From a technology perspective, implementation at scale may be supported by our organization (World Education) but does not require World Education support, as there is no proprietary technology, no hosting, no app, or website to be maintained. World Education currently implements a number of other early grade learning projects and has close relationships with key GoN stakeholders and can support scale up during and after the project through those channels.*

At endline, LEARN self-evaluated their solution as a "1" (to a small extent), sharing that other programs have already begun embedding the non-proprietary solutions as relevant to their objectives.

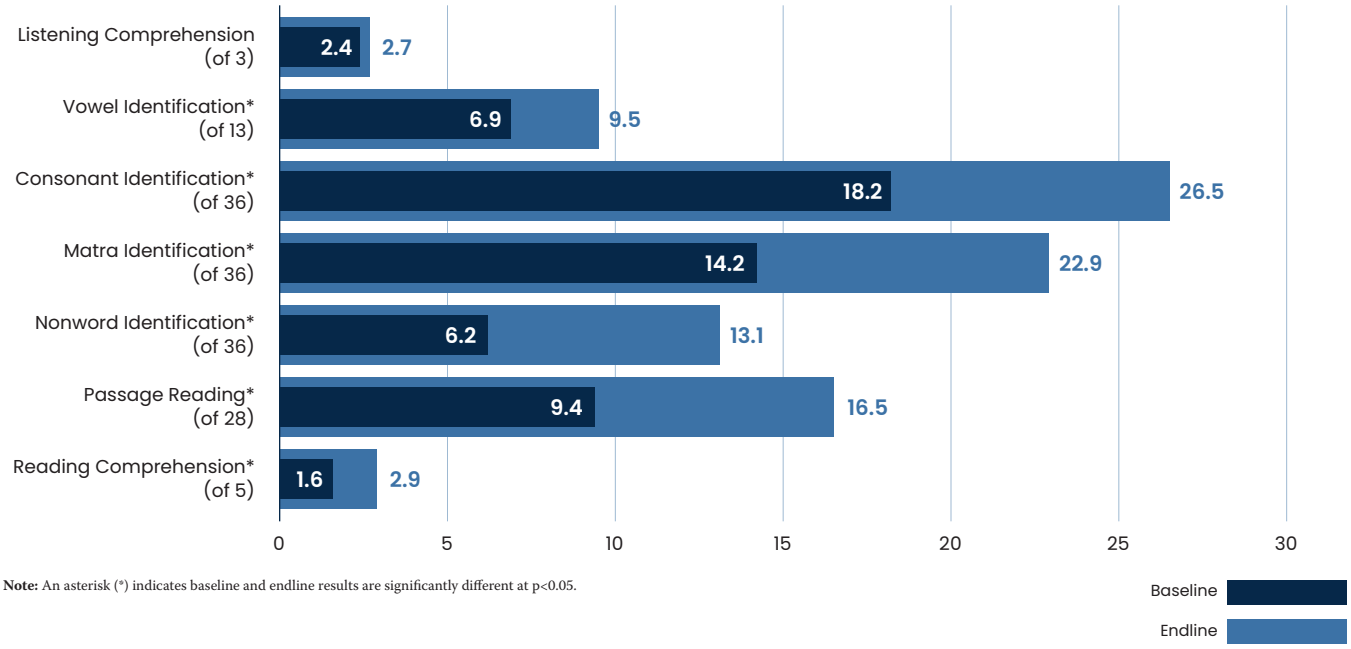
EGRA Results for Learners who are Blind or have Low Vision

This section presents cross-sectional changes in EGRA scores for learners who are blind or have low vision.

Cross-sectional EGRA Scores

Between baseline and endline, the average number of items learners answered correctly improved statistically significantly in every subtask, with the exception of Listening Comprehension which remained high at both time points (see Figure 17).

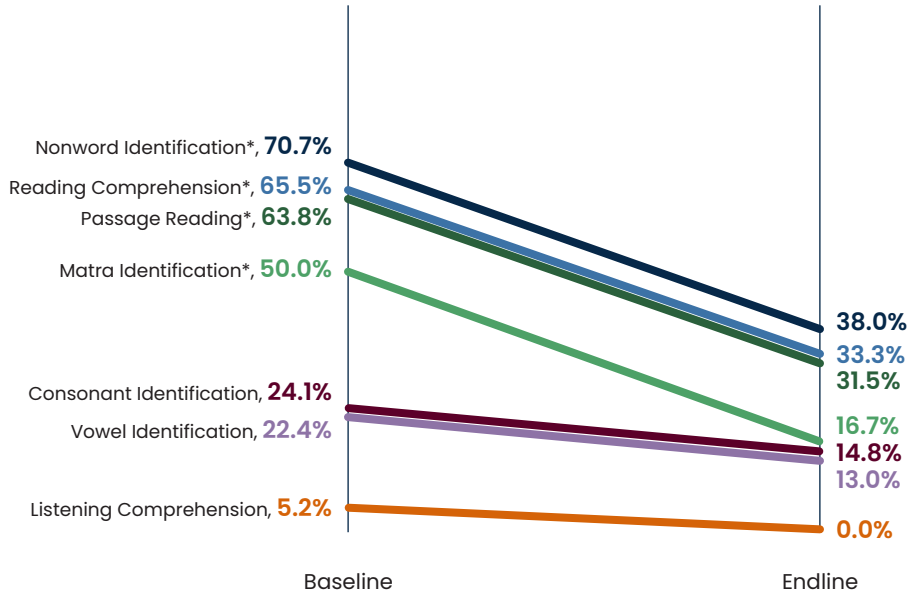
FIGURE 17
Cross-sectional Average Item Correct, for Learners who are Blind or have Low Vision



Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

Additionally, as shown in Figure 18, the proportion of learners who did not answer a single item correctly—known as a "zero score"—significantly dropped for the nonword identification, passage reading, and reading comprehension subtasks.

FIGURE 18
Cross-sectional Zero Scores, Baseline to Endline, Learners who are Blind or have Low Vision



Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

This decrease in zero scores, in conjunction with the increase in average item correct, points to improvements in the cross-sectional sample of learners. A closer look at results shows that most gains achieved by learners who are blind or have low vision occurred in grade 1, the grade in which learners are just beginning to learn foundational reading skills. However, the inclusion of grade 4, which was not included at baseline, may be driving these higher scores as well (see Table 10).

TABLE 10

Cross-sectional EGRA Scores by Grade, Baseline to Endline, Learners who are Blind or have Low Vision

	ECD	ECD	Grade 1	Grade 1	Grade 2	Grade 2	Grade 3	Grade 3	Grade 4	Grade 4
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Vowel Identification	3.0	5.1	6.6	10.6	9.8	8.9	11.5	12.1	n/a	12.5
Consonant Identification	6.0	14.2	18.8	29.7	25.3	25.0	32.3	33.9	n/a	35.1
Matra Identification	1.3	5.4	12.7	28.0	22.2	22.4	31.8	32.3	n/a	33.6
Nonword Identification	0	1.1	3.4	14.8	8.9	9.6	18.4	22.9	n/a	23.7
Oral Reading Fluency	0.0	1.0	6.7	19.6	12.0	18.2	26.8	23.6	n/a	25.1
Reading Comprehension	0.0	0.1	1.2	3.4	2.1	3.1	4.8	4.4	n/a	4.3
Listening Comprehension	2.2	2.4	2.5	2.4	2.7	2.7	2.8	3.0	n/a	2.7

Longitudinal EGRA Scores

Examination of longitudinal results can shed light on individual learners' growth. Among learners who are blind or have low vision who were assessed at both evaluation points, the average fluency scores and average number of items correct scores statistically significantly increased in all subtasks except nonword reading (see Table 11). Similarly, zero scores decreased in all subtasks. Notably, the proportion of learners with zero scores saw a statistically significantly decrease of nearly one-half on the nonword identification, passage fluency, and reading comprehension subtasks. This indicates that more learners engaged in higher level subtasks at endline compared to baseline. However, learners also had an additional year of schooling. Without a comparison group, these results are unable to speak conclusively about the impact of the intervention.

TABLE 11
Longitudinal EGRA Scores, Learners who are Blind or have Low Vision

Score type	Subtask	Baseline	Endline
Fluency (number of correct items per minute)	Correct Vowels per Minute*	11.0	16.3
	Correct Consonants per Minute*	13.6	21.1
	Correct Matras per Minute*	11.1	15.7
	Correct Nonwords per Minute	4.2	6.3
	Correct Words per Minute (Passage Reading)*	8.4	15.4
Average number of items correct	Reading Comprehension (of five)*	1.8	2.7
	Listening Comprehension (of three)	2.6	2.6
Zero scores	Listening Comprehension	2.1%	0%
	Vowel Identification	19.1%	14.9%
	Consonant Identification	19.1%	17.0%
	Matra*	42.6%	19.1%
	Nonword Reading*	68.1%	44.2%
	Passage Fluency*	59.6%	34.0%
	Reading Comprehension*	61.7%	36.2%

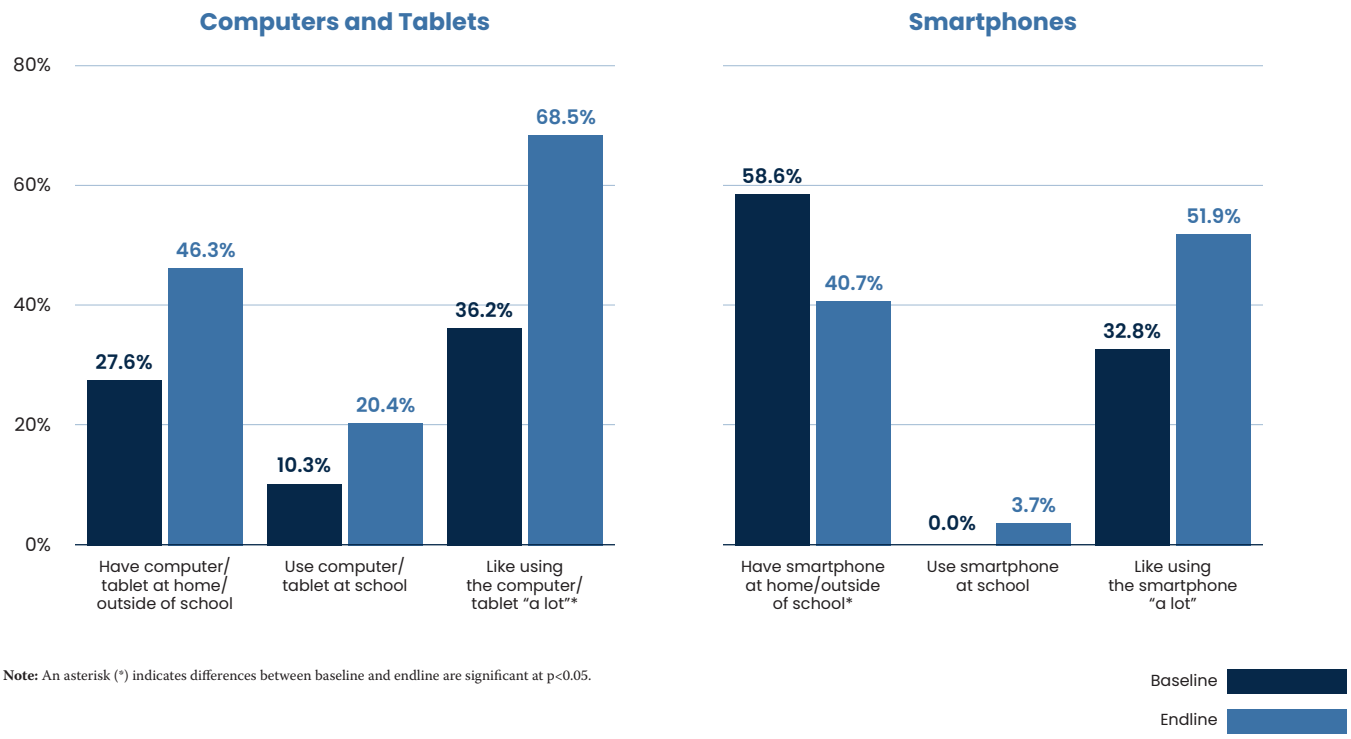
Note: One asterisk (*) indicates that differences in baseline and endline longitudinal scores are statistically significant at $p<0.05$.

Learner Survey

Learners were given a survey on their attitudes on using the EdTech. There was a statistically significant increase in the proportion of learners who like using a computer or tablet "a lot" between baseline and endline, as well as a statistically significant decrease in the proportion of learners with a smartphone at home or outside of school (see Figure 19).

FIGURE 19

Attitudes on EdTech of Learners who are Blind or have Low Vision

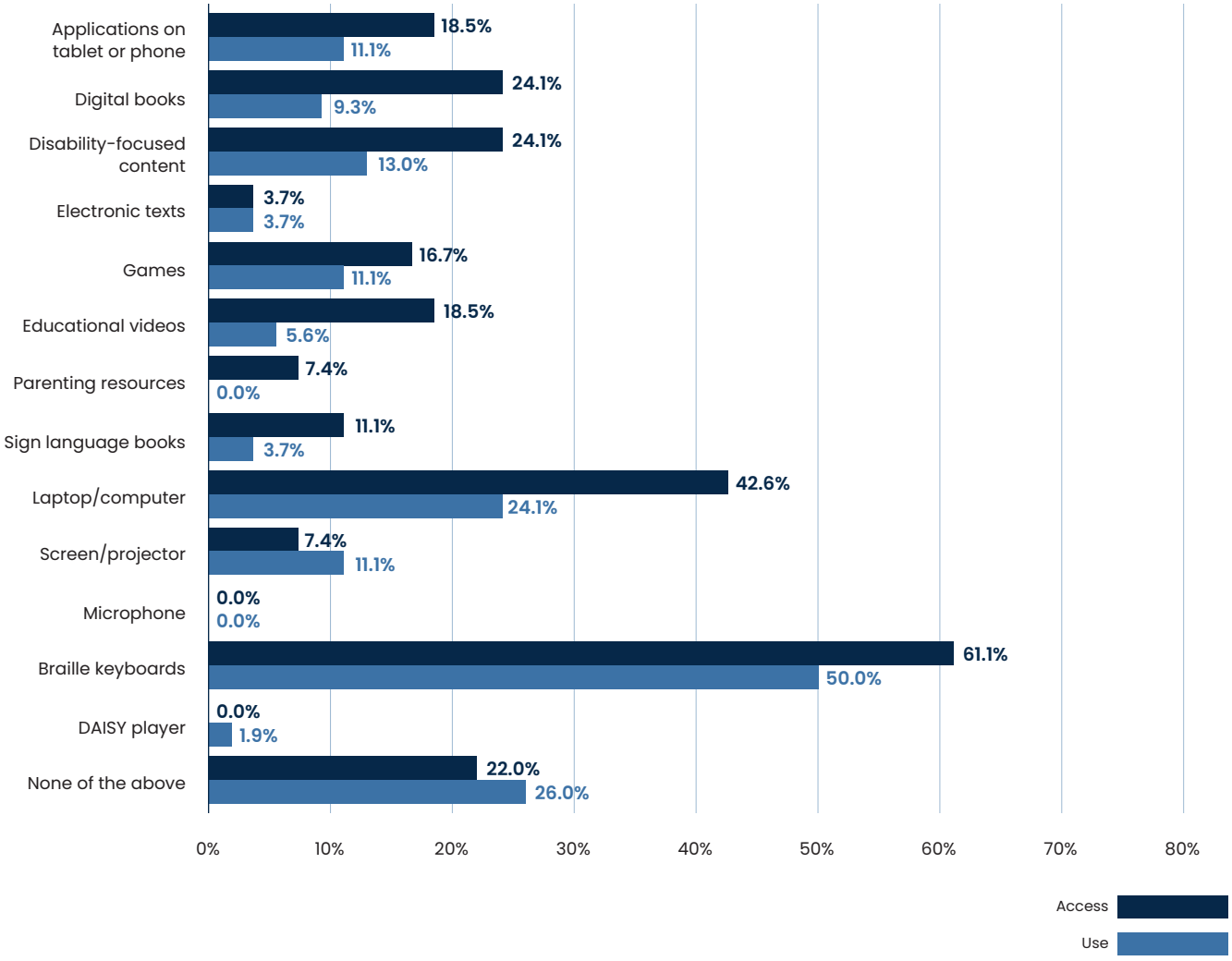


Note: An asterisk (*) indicates differences between baseline and endline are significant at p<0.05.

Of the various EdTech solutions introduced by LEARN, learners reported having most access to braille keyboards (61.1 percent), which was also most used (50.0 percent), as seen in Figure 20. Another large proportion of learners reported accessing and using laptops or computers in class (42.6 percent and 24.1 percent, respectively). However, 22.0 percent of learners said they did not have access to EdTech provided by LEARN in the classroom.

FIGURE 20

Access and Use of EdTech Provided by LEARN to Learners who are Blind or have Low Vision



In relation to the EdTech that learners did have access to, 33.3 percent of learners reported liking the EdTech used in class "a lot" and 37.0 percent liking the EdTech "a little." Among learners who are blind and have low vision, 20.4 percent said the technology is "a lot" easy for them to use and 53.7 percent said it is "a little" easy to use (see **Appendix G: Results by Key Disaggregates**).

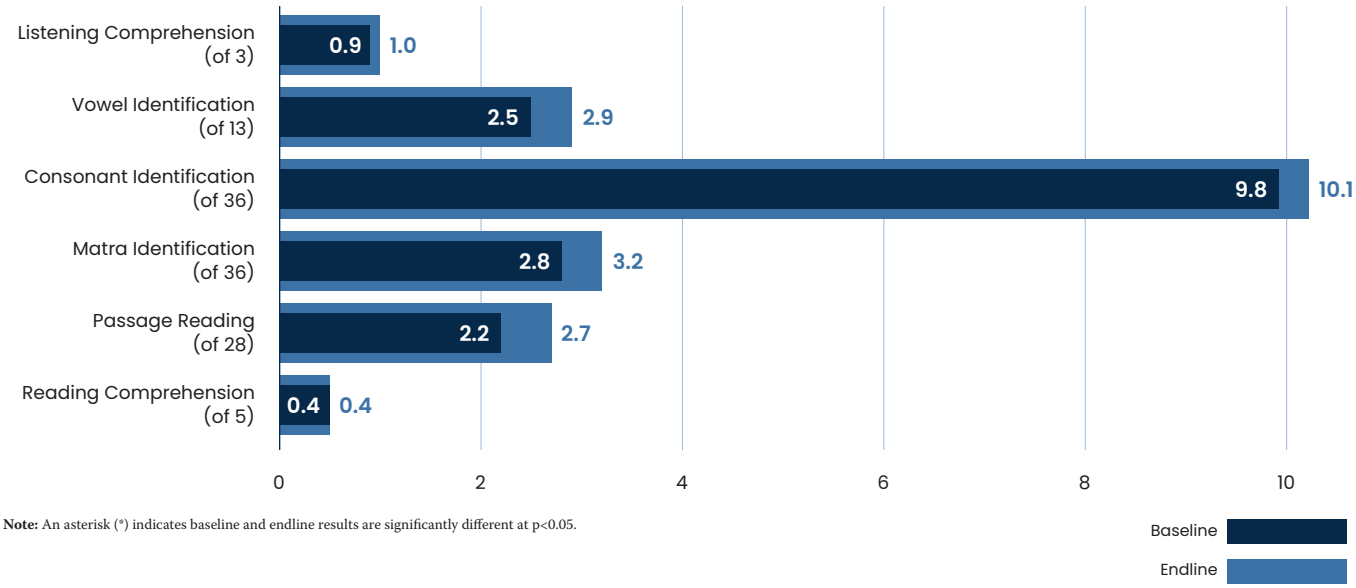
EGRA Results for Learners with Cognitive Disabilities

Cross-sectional EGRA Scores

EGRA results from the cross-sectional sample of learners with cognitive disabilities were very similar at baseline and endline. There were no statistically significant differences in the number of items learners answered correctly in any of the subtasks (see Figure 21).

FIGURE 21

Cross-sectional Average Item Correct, Baseline to Endline, Learners with Cognitive Disabilities

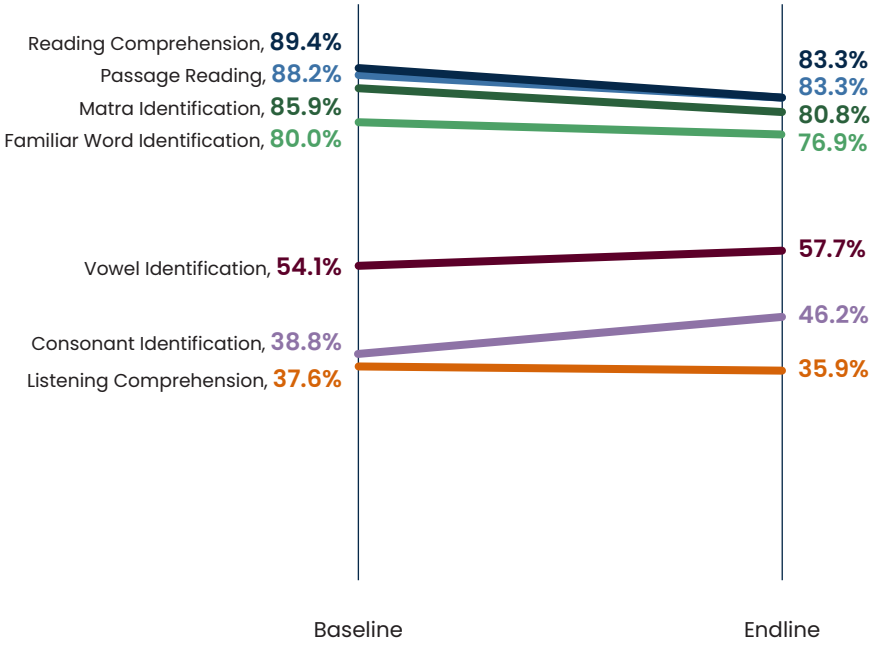


Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

Additionally, as shown in Figure 22, the proportion of learners who received a zero score did not statistically significantly change between baseline and endline. During both evaluations, the proportion of learners with zero scores was very high, especially in more complex subtasks like passage reading and reading comprehension. More than one-third of learners at endline received a zero score on the listening comprehension subtask, which is a measure of a learner's overall comprehension skills. This indicates that a rather high proportion of learners were not able to engage in any of the subtasks on the EGRA at baseline or at endline, suggesting overall challenges with communication and possibly comprehension beyond reading.

FIGURE 22

Cross-sectional Zero Scores, Baseline to Endline, Learners with Cognitive Disabilities



Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

Longitudinal EGRA Results

Longitudinal EGRA results for learners with cognitive disabilities were not tested for statistical significance due to the small sample size and high attrition rate of learners from baseline (see Table 2). Nevertheless, results from the longitudinal sample (see Table 12) indicate that individual learners did show small gains in their fluency scores between baseline and endline in all subtasks. There were also some gains in the average number of items correct on the reading and listening comprehension subtasks as well. However, there were no consistent increases or decreases in zero scores, which remained relatively high in all subtasks.

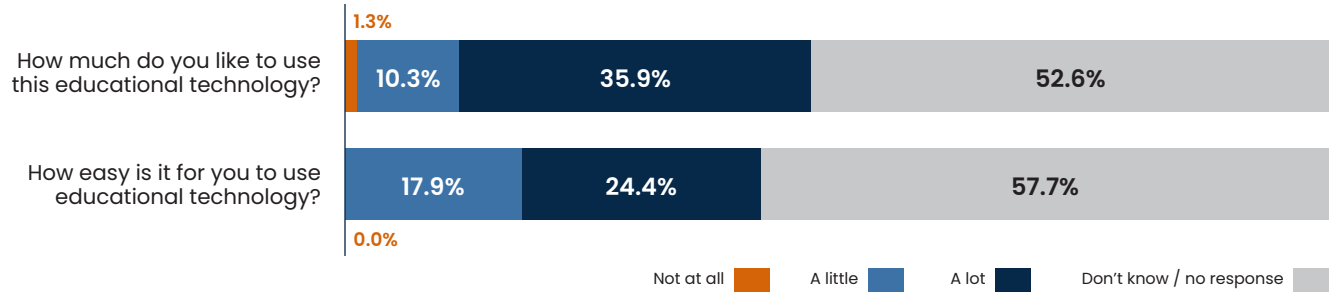
TABLE 12
Longitudinal EGRA Scores, Learners with Cognitive Disabilities

Score type	Subtask	Baseline	Endline
Fluency (number of correct items per minute)	Correct Vowels per Minute	4.3	5.7
	Correct Consonants per Minute	6.5	8.2
	Correct Matras per Minute	2.1	3.4
	Correct Familiar Words per Minute	3.0	3.3
	Correct Words per Minute (Passage Reading)	2.8	3.8
Average number of items correct	Reading Comprehension (of five)	0.4	0.4
	Listening Comprehension (of three)	0.8	0.9
Zero scores	Listening Comprehension	39.6%	39.6%
	Vowel Identification	58.5%	58.5%
	Consonant Identification	45.3%	49.1%
	Matra	86.8%	81.1%
	Familiar Word Reading	81.1%	79.2%
	Passage Fluency	86.8%	83.0%
	Reading Comprehension	88.7%	83.0%

Learner Survey

When asked about access to and use of the EdTech, learners with cognitive disabilities most frequently reported using a screen or projector in the classroom. Interestingly, 42.3 percent of learners reported having access to a laptop in the classroom, but only 26.9 percent reported using it. Additionally, 17.9 percent of learners with cognitive disabilities reported that it was "a little" easy to use the EdTech in class and 24.4 percent said they liked using EdTech "a lot." Notably, 57.7 percent did not respond. Additionally, 35.9 percent of learners said they liked using the EdTech in the classroom "a lot" and 10.3 percent said they liked using the EdTech "a little" (see Figure 23).

FIGURE 23
Attitudes to EdTech of Learners with Cognitive Disabilities



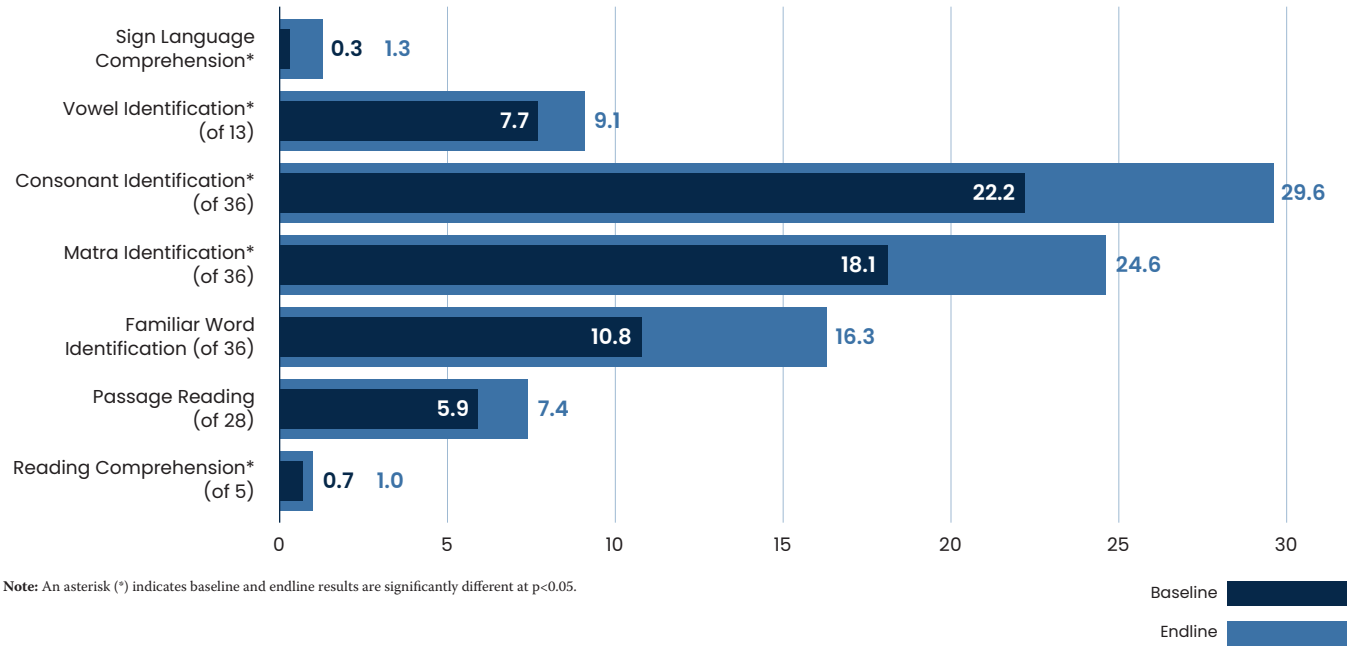
EGRA Results for Learners who are Deaf or Hard of Hearing

Cross-Sectional EGRA Scores

Learners who are deaf or hard of hearing saw improvements in several foundational subtasks. There were statistically significant differences between baseline and endline in the average number of items learners who are deaf or hard of hearing answered correctly on the sign language comprehension, vowel identification, consonant identification, and matra identification subtasks (see Figure 24).

FIGURE 24

Cross-sectional Average Item Correct Scores, Baseline to Endline, Learners who are Deaf or Hard of Hearing

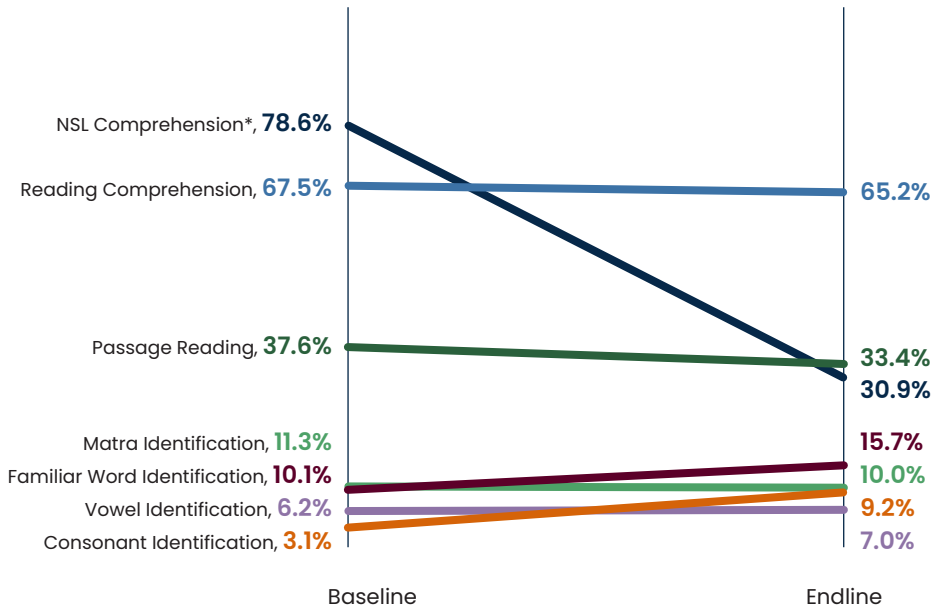


Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

Additionally, as shown in Figure 25, the percentage of learners who did not answer a single item correctly—and therefore received a zero score—significantly dropped for the NSL comprehension subtask. Other rates of zero scores remained generally constant.

FIGURE 25

Cross-Sectional Zero Scores, Learners who are Deaf or Hard of Hearing



Note: An asterisk (*) indicates baseline and endline results are significantly different at p<0.05.

Longitudinal EGRA Results

Among the longitudinal sample of learners who are deaf or hard of hearing, there were statistically significant gains in signing fluency scores, indicating that learners were reading and signing more quickly at endline than at baseline (see Table 13). In addition, there were drops in zero scores on every subtask, again indicating that learners were better able to engage with the assessment's content at endline compared to baseline. These drops were statistically significant in sign language comprehension, vowel and matra identification, and reading comprehension. While there were also improvements in reading and NSL comprehension scores, these scores remained low indicating that learners did not understand the NSL or written stories.

TABLE 13
Longitudinal EGRA Scores, Learners who are Deaf or Hard of Hearing

Score type	Subtask	Baseline	Endline
Fluency (number of correct items per minute)	Correct Vowels per Minute*	20.0	28.4
	Correct Consonants per Minute*	25.5	44.6
	Correct Matras per Minute*	16.1	26.9
	Correct Familiar Words per Minute*	8.7	17.6
	Correct Words per Minute (Passage Reading)*	5.1	10.3
Average number of items correct	Reading Comprehension (of five)*	0.4	1.0
	Sign Language Comprehension (of three)*	0.4	1.3
Zero scores	Sign Language Comprehension*	68.9%	27.8%
	Vowel Identification*	10.1%	3.6%
	Consonant Identification	5.6%	4.7%
	Matra*	14.8%	5.8%
	Familiar Word Reading	15.2%	10.8%
	Passage Fluency	44.2%	26.8%
	Reading Comprehension*	85.4%	60.0%

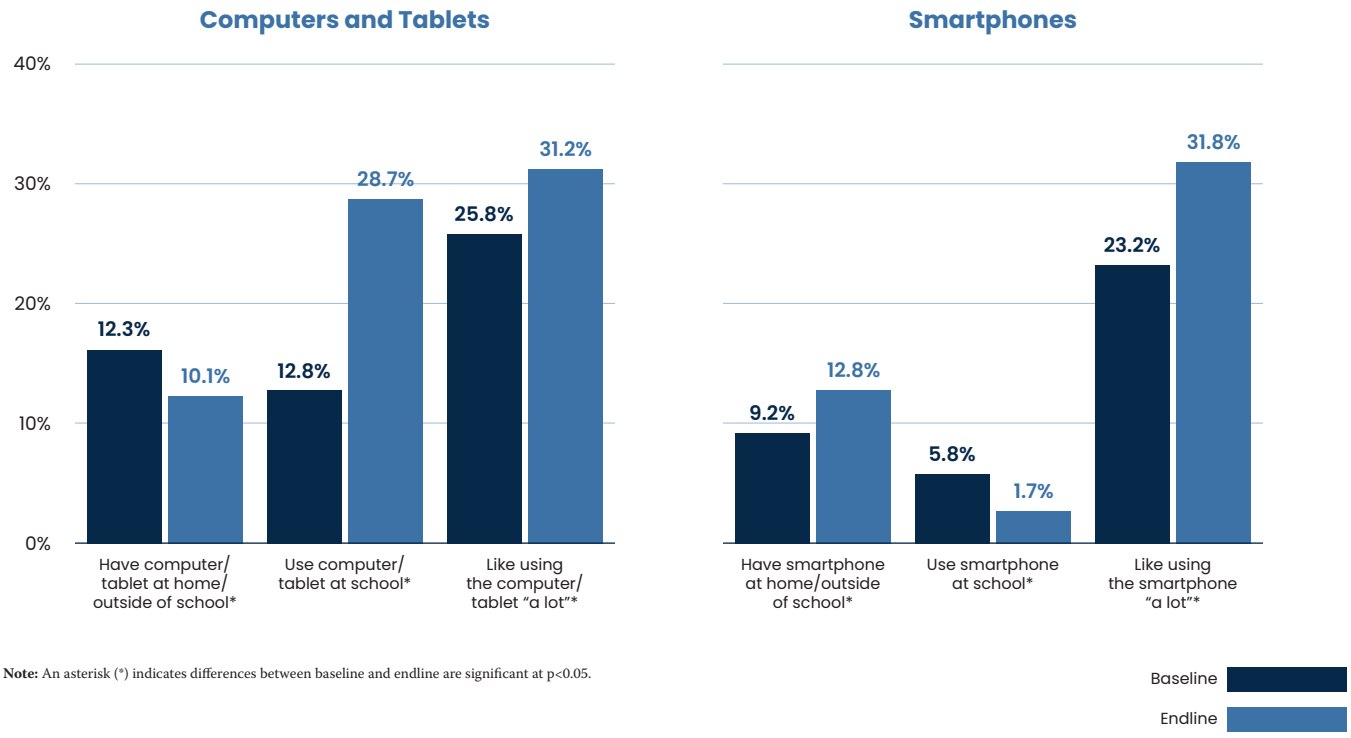
Note: One asterisk (*) indicates that differences in baseline and endline longitudinal scores are statistically significant at $p<0.05$.

Learner Survey

Learners who are deaf or hard of hearing shared their perspectives on the EdTech through a learner survey. The proportion of learners who use a computer or tablet at school and like using it "a lot" increased statistically significantly. Additionally, the proportion of learners who use a smartphone at school decreased significantly, while the proportion who like using the smartphone "a lot" increased significantly (see Figure 26).

FIGURE 26

Access and Enjoyment of Computers and Smartphones by Learners who are Deaf or Hard of Hearing



Note: An asterisk (*) indicates differences between baseline and endline are significant at $p<0.05$.

According to learners who are deaf or hard of hearing, the most frequently used EdTech in classrooms is sign language books (see Figure 27). Nearly half of learners reported that they like to use the EdTech "a lot" (48.5 percent) or "a little" (42.7 percent). Over one third find it "a lot" easy to use (38.8 percent) and just over half find it "a little" easy to use (50.5 percent) as seen in Figure 28.

FIGURE 27

Access and Usage to EdTech in the Classroom by Learners who are Deaf or Hard of Hearing

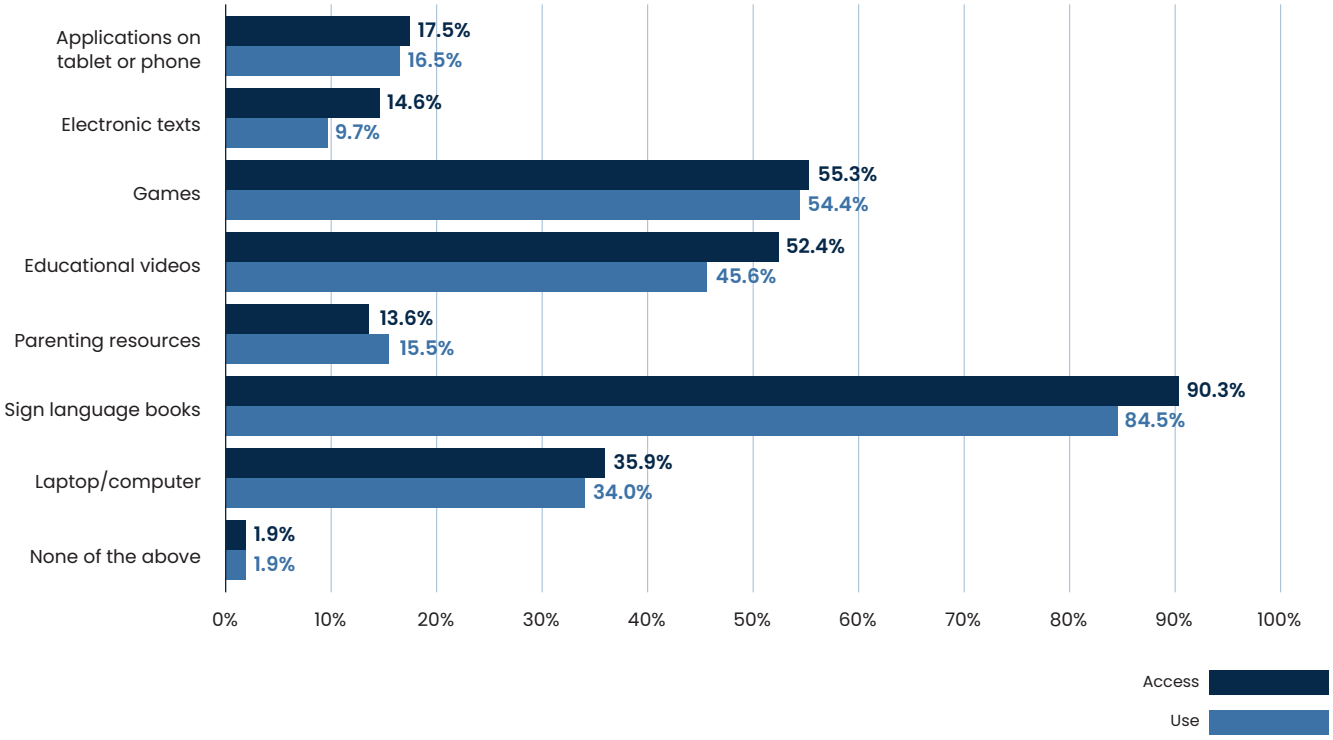
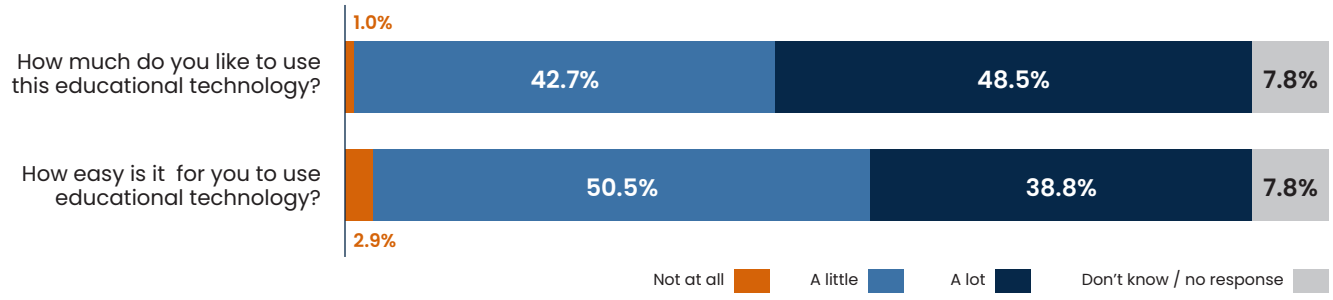


FIGURE 28

Usage and Enjoyment of EdTech in the Classroom by Learners who are Deaf or Hard of Hearing



Evaluation Questions Discussion

This section discusses findings presented in the previous section in relation to the program's evaluation questions.

Evaluation Question 1

To what extent did learners receive the intended dosage of EdTech exposure based on their IEP?

The LEARN program primarily targeted teachers rather than learners, which made determining dosage difficult. According to Indicator Tracking Table (ITT) data, the project has reached 26,350 learners in primary schools. Of these, 878 are learners with confirmed disabilities in resource classes and special schools, 100 percent of whom have access to the EdTech solutions according to program data. However, the percentage of learners reporting using some sort of EdTech varied dramatically by disability type, with learners with visual disabilities and cognitive disabilities reporting lower rates of use of the EdTech. EdTech use was only reported by 60.3 percent of learners with cognitive disabilities and 74.0 percent of learners who are blind or have low vision. As referenced elsewhere in this report, DAISY players were held up in customs after being purchased from India as they are unavailable in Nepal. Consequently, a key EdTech resource for learners who are blind or have low vision was not able to be distributed to them until the very end of the project, after endline.

Conversely, 98.1 percent of learners with hearing disabilities reported using the EdTech. This may indicate that many of the mobile applications (apps) and platforms provided to teachers in LEARN's EdTech toolkit were most effective for learners who are deaf or hard of hearing. Teachers of learners who are deaf also received longer training, and this group was not affected by delivery timing issues like those affecting DAISY readers.

Evaluation Question 2

What were learners' levels of satisfaction with the project's different EdTech solutions?

Learners' rates of satisfaction varied by disability type. Learners who are deaf or hard of hearing had the highest rates of satisfaction. Among learners who are deaf or hard of hearing, over 90 percent reported that they like to use the EdTech "a lot" or "a little" and 89.3 percent find it "a lot" or "a little" easy to use. In contrast, 70.4 percent of learners who are blind or have low vision and 46.2 percent of learners with cognitive disabilities reported liking the EdTech used in class "a lot" or "a little," though it is important to note that 52.6 percent of learners with cognitive disabilities did not respond to the question, compared to 25.9 percent of learners who are blind or have low vision and 7.8 percent of learners who are deaf or hard of hearing. As mentioned in EQ1, this reflects that apps and platforms provided to teachers in LEARN's

EdTech toolkit may have been more effective for learners who are deaf or hard of hearing than for learners with other disabilities. Program data indicates that learners who are deaf or hard of hearing benefitted from resources designed from previous investments (such as an NSL app and digital books created in the R4A project). Teachers of these learners also had longer training duration, which may have influenced their ability to integrate EdTech.

Evaluation Question 2a

What do learners believe could be improved about the project's EdTech solutions?

Learners were asked to weigh their agreement with specific elements that might improve EdTech use. Among the 235 learners who participated in the endline evaluation, 68.1 percent agreed that the EdTech content could be easier to understand; 31.1 percent said the EdTech should include content that relates to the learner's life; 19.2 percent agreed that the tech itself should be easier to use; and 9.8 percent agreed that the teacher could allow them to use the EdTech more.

Evaluation Question 2b

How well did the project's EdTech solutions meet learners' specific needs?

The EdTech solutions met learners' specific needs to a moderate degree, with solutions better meeting the needs of learners who are deaf or hard of hearing or blind or low vision while not supporting the needs of learners with cognitive disabilities well. The most frequently cited EdTech used by learners who are deaf or hard of hearing was sign language books. Nearly 85 percent of learners who are deaf or hard of hearing said they used this resource. Similarly, 61.1 percent of learners who are blind or low vision reported having access to braille keyboards and 50.0 percent reported using them.

No EdTech solutions had a similarly high proportion of usage among learners with cognitive disabilities. This may be because multiple resources—such as sign language books—were specifically targeted to deaf or hard of hearing needs, whereas the other resources were applicable to all learners rather than specific to individual disability types. Program records indicate that specific apps for learners with cognitive disabilities were not finalized until April 2023, after the endline data collection had occurred.

Teachers provided insight as to how EdTech met learners' needs. As reported in the previous section on UDL, IEPs, and EdTech , 91.2 percent of teachers agreed or strongly agreed that learners could easily access the EdTech, and 85.3 percent agreed or strongly agreed that learners could easily use the EdTech. Additionally, 85.3 percent of teachers agreed or strongly agreed that the EdTech supported learners' problem solving and 73.6 percent agreed or strongly agreed that the EdTech supported learners' presentation of learnings.

Evaluation Question 3

To what extent did teachers receive the intended dosage of training?

ITT data indicates 447 unique teachers were trained in UDL and the EdTech solutions over the course of the program, and program data on teacher training indicates that at least one teacher was trained in all of the 200 program schools – either through direct or refresher trainings. LEARN was thus able to reach all schools in the program. Of the 34 teachers surveyed at endline, 73.5 percent reported attending the three-days Teacher Training on UDL; 64.7 percent reported attending the two-days Refresher training on UDL, and 17.7 percent reported attending the 10-days NSL training.

Evaluation Question 4

What were teachers' levels of satisfaction with the project's trainings?

Endline survey results suggest that teachers were satisfied with LEARN project trainings. The previous section on **LEARN Training Participation and Satisfaction** reports that 94.1 percent of teachers were moderately or very satisfied with LEARN training on the EdTech, and 96.8 percent were moderately or very satisfied with other LEARN training content. These are overall high rates of satisfaction, although rates of moderate satisfaction were higher than rates of "very satisfied" for both categories (50.0 percent for the EdTech, 48.4 percent for other LEARN content). This indicates that there is room to improve training content for teachers.

Evaluation Question 4a

What do teachers believe could be improved about the trainings?

While the teachers were relatively satisfied with the trainings themselves, teachers and partners identified key areas for improvement. Of the 31 teachers who attended any kind of LEARN training, only 29.0 percent thought there could have been improvements to the trainings. Nine teachers provided suggestions: six teachers suggested longer or more frequent trainings, two teachers requested specific training in braille, and one specifically suggested matra training in braille. These comments reflect the additional training needed for teachers working with blind and low vision learners in Nepal, as Nepali braille functions differently than Devanagari written script and does not include matras (Wikipedia, 2023).

Information from OPD partner interviews support teacher suggestions, indicating that a key area to improve on in teacher training was follow-up. While LEARN did provide UDL refresher training, OPDs indicated that teachers would have benefitted from ongoing, sustained coaching and mentoring after the trainings. OPD interviews and program data also indicate that a challenge in providing such follow-up to trainings was likely not feasible due to the compressed program implementation timeline.

Evaluation Question 4b

How well did the trainings meet teachers' specific needs?

LEARN's trainings did a respectable job of introducing teachers to new skills and practices related to EdTech and UDL. Teachers' reported use of technology increased quite a bit; however, their reported level of comfort using technology did not. This may be a case of teachers' frame of reference about technology changing between baseline and endline, though more detailed research into teachers' comfort levels with technology is needed to support this. However, support for implementation of these practices was uneven. Most teachers agreed or strongly agreed that they gained information, skills, resources, support from the LEARN trainings.

Teachers specifically referenced learning new teaching methods, such as teaching with games, visual and non-visual teaching methods, and new information about UDL. Nearly all teachers also reported using these elements in their lessons a few times a week. However, a few teachers reported never or infrequently using resources and support gained in LEARN trainings. This last finding indicates that teachers might need more training or coaching in how to apply the resources and support they learned. It is also important to keep in mind that the sample of teachers was already somewhat familiar with support for learners with disabilities. These concepts may have been much more novel for mainstream teachers.

While these new skills were certainly useful according to the opinions of teachers, information from OPDs indicates that there is still much work to be done in meeting teachers' needs to support learners with disabilities. LEARN trainings introduced teachers to many new skills and made them aware of UDL practices, but teachers required further support in practicing these new skills in the classroom as outlined in **OPD Interviews**.

Future iterations of the project should look more closely at teachers' IEP use in resource classes and special schools to better understand how teachers might improve the utility of this support to their learners.

Evaluation Question 5

What were teachers' levels of satisfaction with the process of using IEPs to match learners with specialized learning materials using EdTech?

In general, LEARN project activities did not focus on using IEPs to match learners with specialized EdTech, but rather focused on using the EdTech more broadly. While the proportion of teachers trained in IEP use overall increased from 30.7 percent at baseline to 82.1 percent at endline, the proportion who reported using IEPs did not change significantly. In addition, 75.0 percent of teachers felt that the process of using IEPs to match technologies to learners' needs could be improved. Future iterations of the project should look more closely at teachers' IEP use in resource classes and special schools to better understand how teachers might improve the utility of this support to their learners.

Evaluation Question 5a

What do teachers believe could be improved about the process?

Because the project did not focus explicitly on IEPs, teachers did not provide concrete suggestions as to how the use of IEPs with the EdTech could be improved. Many teachers simply stated that the EdTech was useful.

Evaluation Question 5b

What were teachers' levels of satisfaction with the project's EdTech solutions?

and

Evaluation Question 5c

How well did the project's EdTech solutions meet teachers' specific needs?

Teacher responses on the survey were generally positive regarding the EdTech introduced by LEARN, although there seemed to be a disconnect with actual teacher use of the EdTech.

At endline, 44.1 percent reported that they were very satisfied with the EdTech solutions they learned about. Additionally, just over one-half of teachers reported they were moderately satisfied with the EdTech solutions. As shown previously in Figure 15, the majority of teachers agreed or strongly agreed that they could easily access the EdTech toolkit (94.1 percent), could easily use the EdTech with learners (94.2 percent), and could easily integrate the EdTech into lessons (91.2 percent).

Additional survey data indicates that although teachers may have been interested in the EdTech solutions, they were not as comfortable putting them into practice. Teacher comfort with the EdTech did not improve between baseline and endline. Additionally, 35.3 percent of teachers stated that the primary reason for not using the EdTech in lessons was a limitation in their view of their own tech skills. OPDs added further nuance. Information from interviews suggest that the teachers who struggled with the EdTech the most were older teachers who were likely not as prepared or interested in adding new EdTech strategies into their teaching practice.

Information from interviews suggest that the teachers who struggled with the EdTech the most were older teachers who were likely not as prepared or interested in adding new EdTech strategies into their teaching practice.

Evaluation Question 8

To what extent did LEARN teachers change their knowledge, attitudes, and practices on use of EdTech and UDL for learners with disabilities?

Overall, comparisons of teacher baseline and endline data do not indicate that there were significant changes in the knowledge and attitudes on use of UDL to support learners with disabilities, likely because teachers in the sampled schools were already familiar with concepts around supporting learners with disabilities. However, there were increases in use of the EdTech. Information from OPD interviews indicates that teachers were receptive to new information and found the EdTech and UDL content helpful, although there were some challenges with adoption of new practices. OPDs cited the need for sustained follow-up coaching or support in use of the EdTech and implementation of UDL—a common theme related to all training that LEARN provided.

Evaluation Question 8a

Did teachers have increased knowledge and improved attitudes on how EdTech can support learners' reading and/or language skills development?

Teacher knowledge and attitude on using the EdTech to support learners' reading or language skills development did not change in a notable way between baseline and endline. To measure teachers' change in knowledge and attitudes towards the EdTech, teachers responded to a series of statements regarding the EdTech and expressed their agreement.[25] Responses to these questions formed the EdTech Support scale, ranging from zero to three, with "0" indicating low knowledge or attitudes about the EdTech and "3" indicating high knowledge or attitudes. At baseline, the average teacher rating was 2.3, and at endline, the average teacher rating was 2.4.

Evaluation Question 8b

How and to what extent did teachers utilize project EdTech solutions in their classrooms and with their learners?

Although attitudes and knowledge about EdTech did not change between baseline and endline, teachers did report an increase in use of computers, tablets, feature phones, and smartphones between baseline and endline. The most frequently cited LEARN EdTech solutions used were digital books or libraries (76.5 percent), Hamro Ramailo Katha (41.2 percent), and Nepali Barnamala (38.2 percent). Nearly one in three teachers (30.6 percent) at endline reported using the EdTech in their lessons with learners every day and about two-thirds reported using the EdTech in lessons between one and four times per week. Additionally, LEARN classroom observation data indicated that 79.3 percent (172 out of 219) of teachers were using the EdTech as intended.

Evaluation Question 8c

Did teachers have increased knowledge and improved attitudes on how UDL principles can support learners' reading and/or language skills development?

Similar to knowledge and attitudes about the EdTech, there were no changes in teachers' knowledge and attitudes about UDL principles between baseline and endline, likely due to this evaluation's sample as referenced before. Teachers' knowledge and attitudes were measured by creating a scale ranging from zero to three measuring their agreement with statements about UDL.[26] At both baseline and endline, the mean UDL scale score was 2.3.

OPD interviews indicated that many teachers did not have much background in UDL before the project and that exposure to UDL principles was one of the main program outcomes. The difference between survey data and OPD data may be attributed to the endline sample population—resource class and special schoolteachers.

25 These statements included the following: An IEP can help match a learner to different technologies to support their reading and learning; Using technologies can help a diverse range of learners learn to read; Having learners use technologies in the classroom is more of a distraction than a benefit; I know how to match different technologies to learners with different needs; I am confident using technologies in my classroom.

26 Statements measuring UDL knowledge and attitudes included: I know how to use varied or differentiated learning activities to engage a diverse group of learners; I know different strategies to motivate and engage a diverse range of learners; I give my learners different types of opportunities to express what they learn; I believe that it is important to present information to learners in a variety of ways; I believe it is important to allow learners to express what they know in a variety of ways; I believe that it is important to motivate and engage learners in a variety of ways; I can use a variety of assessment strategies for my learners; I can provide an alternative explanation or example when learners are confused.

This population may already have been exposed to many of the ideas comprised in UDL. Baseline teacher survey indicates that 51.9 percent of teachers reported having pre-service training in strategies and practices to teach reading to early grade learners with disabilities. Another 81.5 percent of teachers reported having in-service training in these same topics. It is likely that teachers in mainstream schools received these trainings at lower rates given that they do not specialize in supporting learners with disabilities, and thus were more substantially impacted by the introduction of UDL principles.

Evaluation Question 8d

How and to what extent did teachers utilize UDL principles in their classrooms and with their learners?

When teachers were asked about their use of UDL strategies at endline, the most commonly used principle in the last five days was offering various opportunities for learners to express what they learned (82.4 percent). Additionally, 70.6 percent of teachers reported using methods to motivate and engage diverse learners and that they had presented information to learners in a variety of ways. Slightly more than 60 percent of teachers reported using a variety of assessment strategies for their learners and providing alternative explanation or examples to learners. Only 41.2 percent of teachers utilized varied or differentiated learning strategies for a diverse range of learners.

Teachers were asked about subjects during which they used these strategies. More than 70 percent of the teachers reported using the strategies in Nepali reading and writing. However, fewer teachers used UDL strategies in mathematics and science. This might suggest that teachers need more training to effectively apply UDL principles in these subjects. This was not a specific mandate of the project, but future iterations might explore how to evenly apply UDL across all subjects.

Evaluation Question 10

Did LEARN learners' reading and/or language skills improve from baseline to endline?

This section discusses findings around changes in the longitudinal sample of learners' reading outcomes overall and in relation to contextual factors and the EdTech solutions.[27] It provides answers to **Evaluation Question 10a: *What contextual factors—including geographic, demographic, and socioeconomic factors—were associated with learners' reading and/or language skills gains?*** [28] and **Evaluation Question 10b: *To what extent did different EdTech solutions contribute to learners' reading and/or language skills gains?*** Limited sample sizes and data around the EdTech dosage and classroom usage make reporting particularly difficult. Interpretations should be taken with caution.

27 Discussion pertaining to this evaluation question is limited to the longitudinal sample, as it is assured that this group was in a LEARN school for the entire duration of the project.

28 Contextual factors might include socioeconomic status, location, parents and caregivers' level of education, or language use at home, among other factors.

Blind or Low Vision

Overall, scores for learners who are blind or have low vision improved between baseline and endline. Among the longitudinal sample of learners who are blind or have low vision, there were increases in fluency scores in all subtasks and zero scores decreased on all subtasks. While reading and listening comprehension scores improved, they remained relatively low. At endline, learners responded correctly to 2.7 out of five reading comprehension questions correctly and to 2.6 out of three listening comprehension questions correctly at endline.

To understand what factors might be associated with higher endline scores, analysts ran correlations between demographic information, responses from learner surveys, and endline passage reading fluency and listening comprehension scores. Correlations showed a moderate association between passage reading fluency and grade (coefficient of 0.50), and a weak association with having someone in the family who can read (0.39). Higher passage reading fluency scores were associated with learners in higher grades and learners with more family members who help them with their homework. Similarly, a weak association was found between listening comprehension, grade (0.31), and having someone in the family who can read Nepali (0.47). Listening comprehension was associated with learners in higher grades and learners with family members who can read Nepali. No correlations were found with other demographic factors, such as sex and age, or if the learner lives at home or in a hostel. Similarly, no correlations were found between passage reading fluency, listening comprehension, or other factors related to learners' use of the EdTech in the classroom.

Learners with Cognitive Disabilities

Among the longitudinal sample of learners with cognitive disabilities, there were no meaningful changes in scores between baseline and endline. Fluency scores in vowel identification, consonant identification, matra identification, familiar word identification, and passage reading fluency only increased by about one correct item per minute or less. Additionally, at endline, learners were still averaging less than one correct question in reading and listening comprehension. Rates of zero scores remained relatively consistent and relatively high between baseline and endline, with the lowest rates of zero scores at 39.6 percent in listening comprehension and the highest in reading comprehension (83.0 percent).

Very few relationships were found between learners' passage reading fluency scores, listening comprehension scores, and other factors. Only a weak, positive correlation (0.34) was found between listening comprehension and how easy it was to use the EdTech—meaning more learners who felt using the EdTech was easy had higher listening comprehension scores. However, this may be more indicative of learners' general skills and abilities rather than the influence of the EdTech. No correlations were found with any demographic factors.

Learners who are Deaf or Hard of Hearing

Learners who are deaf or hard of hearing saw some increases in their scores related to overall language acquisition as well as literacy between baseline and endline. Regarding language acquisition, NSL comprehension increased among longitudinal learners from less than one item correct at baseline to 1.3 items correct (of three) at endline. There were also drops in zero scores on every subtask, indicating that learners were better able to engage with the assessment's content at endline compared to baseline. Language acquisition is a prerequisite for reading and thus is an encouraging progression.

For literacy, there were significant increases in all fluency scores. The highest change was in consonant identification fluency, where scores increased from 25.5 consonants correct per minute at baseline to 44.6 consonants correct per minute at endline among the longitudinal sample.

While there were also improvements in reading comprehension, these scores remained low—around one correct item out of five in reading comprehension—indicating that learners did not understand the written stories well.

No correlations were found between learners' passage reading fluency and NSL comprehension scores and other demographic factors. However, there was a weak relationship (0.33) between NSL comprehension and the learners' frequency of using the EdTech at endline, as well as a weak relationship (0.34) between NSL comprehension and learners' reported ease of using the EdTech.

Evaluation Question 11

What contextual factors—including geographic, demographic, and socioeconomic factors—were associated with beneficiaries' use or non-use of the project's EdTech solutions?

To understand factors associated with learners' use or non-use of technology, analysts examined correlations between learners' reported EdTech frequency, enjoyment, and perceived ease of use. As previously mentioned, data around learners' use or non-use of the EdTech solutions is limited and self-reported, thus making results subject to reliability concerns. Findings should be interpreted with caution, as these associations do not have implications with causality due to programming.

Among learners who are blind or have low vision, there was a weak association between girls and how easy learners reported the EdTech to be (correlation coefficient of 0.31). Among learners who are deaf or hard of hearing, learners who did not have anyone in the family who could read Nepali were associated with lower levels of enjoying the EdTech (-0.27) and finding the EdTech easy to use (-0.28). Among learners with cognitive disabilities, older learners were associated with more frequent use of the EdTech (0.32). Learners with cognitive disabilities in higher grades were also associated with higher rates of thinking that the EdTech is easy to use (0.37). These factors do not paint a detailed picture of what may or may not contribute to EdTech use. OPD interview data sheds light on this, as several indicated that program implementation was uneven across various provinces and inconsistent among teachers, making it difficult to understand what drove EdTech use in classrooms.

Evaluation Question 12

How scalable is the LEARN model?

Data from the SAT and OPD interviews indicate that the LEARN model does have the potential for scaling. The program has successfully raised awareness of the possibility of EdTech for supporting learners with disabilities' education and introduced UDL concepts to mainstream teachers beyond those who may have already been familiar. The project has formed critical local networks with schools, OPDs, and government officials, even raising awareness of the potential of EdTech and UDL amongst local government officials. The project is thus poised to continue making an impact in communities and with stakeholders where they already have a foothold, and it is clear from OPD interviews that there is a great appetite for this. However, to effectively continue building on this success, the LEARN model needs continued resources for ongoing teacher trainings and follow-up support, as well as continued advocacy with the provincial and national government. In addition, technological change continues to speed up with every new advancement released. If the EdTech toolkit remains as is, the apps and materials will likely become irrelevant or even obsolete without someone ensuring that materials are continuously updated.

Conclusions and Recommendations

The LEARN project provided a combination of high-tech and low-tech educational materials through its EdTech toolkit and supplements. In addition to preparing teachers to use these materials, it offered training on inclusive education and UDL. All this was done with the aim of improving the reading skills of learners, especially those with disabilities, through a series of steps suitable for scaling. From June 2022 to May 2023, LEARN provided its EdTech toolkit and supplements to teachers and learners in 200 schools in four provinces, as well as building partnership and foundational understanding.

Overall, results from the endline evaluation indicate that LEARN was well received by partners, teachers, and learners. LEARN reached nearly all its intended audience with a solution that teachers universally feel is easy to access and use. However, the project has been uneven in its ability to support the needs of learners with disabilities. Learners who are deaf or hard of hearing report the greatest engagement with LEARN EdTech toolkit. While their early grade reading scores saw only modest increases from the project's baseline to endline, increases in NSL comprehension point to important strides in language acquisition. Learners who are blind or have low vision saw the greatest improvement in literacy and reading skills, but the evaluation found no correlation between these scores and the use of the EdTech in their classrooms. Learners with cognitive disabilities reported the lowest levels of satisfaction with LEARN's EdTech toolkit— though they also had the greatest proportion of non-response to questions about the EdTech toolkit. They also saw the least change in their EGRA scores over the project's implementation period. It seems that there likely are confounding issues of communication and comprehension at play in consideration of this group's responses.

Still, the teacher training modules put forth by the LEARN project has promise. The project had high participation rates in its numerous trainings, built a network of solid and critical partnerships between schools and community actors, and indicates the potential for scalability. Indeed, CEHRD—one of LEARN's GoN partners—has already adopted one of LEARN's modules into its own teacher training curriculum on UDL and EdTech and has plans to integrate it into the GoN's larger customized teacher training package.

Recommendations

STS recommends the following actions moving forward.

EdTech

Future iterations of the project should prioritize a few EdTech solutions that are most useful for specific demographics and work with teachers on incorporating those into lesson plans. Teachers also require additional support in matching the EdTech to specific learner needs. Teachers increased their use of computers or tablets, feature phones, and smartphones between baseline and endline, and LEARN presented teachers with a wide array of resources and did increase teachers' ability to use the EdTech. This gave teachers many options but may have also made it challenging to know which resources to use most appropriately.

In addition, it was outside of the scope of LEARN to provide infrastructure such as electricity at schools, but all 200 paid out of their own budget for internet connectivity, many purchased additional technology, and some leveraged funding from local government for electricity. This cost-sharing demonstrates commitment to the project, but also highlights an important consideration for future EdTech projects as many teachers and OPDs mentioned challenges around unreliable electricity and internet access. In the future, it might be useful to include consultations with information technology professionals and engineers with experience in the remotest geographic areas to troubleshoot such issues before deciding on an EdTech solution.

Future iterations of the project should prioritize a few EdTech solutions that are most useful for specific demographics and work with teachers on incorporating those into lesson plans. Teachers also require additional support in matching the EdTech to specific learner needs.

Teacher Engagement

In the future, EdTech projects might also consider implementing digital literacy assessments that include practical components for teachers at baseline—for instance, demonstration of tablet or mobile phone use—to understand their level of comfort and ability to use EdTech and tailor their curriculum from that point on. It might also be helpful to consider peer mentorship programs, pairing a younger teacher with an older teacher who may have more trouble with technology, to have better in-person support. Teachers appreciated the content they learned from the project but needed more support in better integrating EdTech and UDL into their lessons and tailoring these tools for the specific learners they needed. One challenge related to this was the short implementation timeframe, as a longer project would have provided more opportunities to support teachers.

Future EdTech projects might also consider implementing digital literacy assessments that include practical components for teachers at baseline.

Learning Outcomes

Future iterations of the LEARN model should provide targeted teacher training in using EdTech to support learners with cognitive disabilities. Learners who are blind or have low vision, or deaf or hard of hearing saw some gains in their EGRA scores between baseline and endline. Learners with cognitive disabilities showed no gains in learning outcomes and their results mostly remained constant. It was impossible to determine how much the EdTech played a role in these gains, as the program implementation period was very short and dosage information about the EdTech use for classroom learning was sparse. Supporting learners with cognitive disabilities is especially difficult, given that distractions are a factor, and teachers may need to know how to help learners use particular apps. Future iterations might also explore learning outcomes seen in mainstream schools.

Future iterations of the LEARN model should provide targeted teacher training in using EdTech to support learners with cognitive disabilities.

Appendices

Appendix A

ACR GCD UnrestrICTed Results Framework Indicators

This appendix provides current life of project (LOP) values for LEARN as of June 2023. Endline values have been added where required and triangulated figures have been included for some indicators as well.

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1 Objective	FA1.1	Percentage of children who demonstrate increased reading and/or language outcomes	Total	Percent	0%		28.4% (54 of 190)	Figure is calculated as the proportion of longitudinal learners whose reading comprehension score improved between baseline and endline. Grade is reported as endline grade.
			Nepali	Percent	N/A*			
			Girls	Percent	N/A*			
			Boys	Percent	N/A*			
			ECD	Percent	0%		6.3%	
			G1	Percent	0%		32.1%	
			G2	Percent	0%		48.8%	
			Non-school/OOS	Percent	N/A*			
			Girls with disabilities	Percent	0%		24.4%	
			Boys with disabilities	Percent	0%		31.7%	
			Deaf or hard of hearing	Percent	0%		37.8%	
			Blind or low vision	Percent	0%		31.9%	
			Communication or speech	Percent	N/A*			
			Learning or intellectual	Percent	0%		9.4 %	
			Physical or mobility	Percent	N/A*			
			Other	Percent	N/A*			
			One disability	Percent	N/A*			
			More than one disability	Percent	N/A*			

* sample specific only to learners who are blind/low vision, deaf or hard of hearing, or have a cognitive disability

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal A	FA1.A.1	Number of learners in primary schools or equivalent non-school based settings reached (USAID ES. 1-3)	Total	Learners	N/A	26350		
			Girls	Learners	N/A	13179		
			Boys	Learners	N/A	13171		
			ECD	Learners	N/A	5237		
			G1	Learners	N/A	6922		
			G2	Learners	N/A	6633		
			G3	Learners	N/A	7558		
			Girls with disabilities	Learners	N/A	371		
			Boys with disabilities	Learners	N/A	507		
			Deaf or hard of hearing	Learners	N/A	259		
			Blind or low vision	Learners	N/A	139		
			Communication or speech	Learners	N/A	39		
			Learning or intellectual	Learners	N/A	359		
			Physical or mobility	Learners	N/A	79		
			Other	Learners	N/A	3		
			Mainstream	Learners	N/A	25459		
			SS	Learners	N/A	462		
			RC	Learners	N/A	416		
			Dalit	Learners	N/A	5436		
			Muslim	Learners	N/A	2844		
			Brahmin/Chhetri	Learners	N/A	4440		
			Newar	Learners	N/A	834		
			Janajati	Learners	N/A	4471		
			Other	Learners	N/A	8325		
			Province (Bagmati)	Learners	N/A	6595		
			Province (Madesh)	Learners	N/A	14102		
			Province (Gandaki)	Learners	N/A	2775		
			Province (Karnali)	Learners	N/A	2876		
			L1	Learners	N/A	0		
			L2	Learners	N/A	0		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal A	FA1.A.2	Number of children with disabilities who have access to EdTech solutions	Total	Learners	N/A	878	234	Endline evaluation values are triangulations from learner survey. Values are the number of learners who report they have access to EdTech at endline.
			Girls	Learners	N/A	371	103	
			Boys	Learners	N/A	507	131	
			ECD	Learners	N/A	294	22	
			G1	Learners	N/A	187	34	
			G2	Learners	N/A	201	43	
			G3	Learners	N/A	196	55	
			Girls with disabilities	Learners	N/A	371	103	
			Boys with disabilities	Learners	N/A	507	131	
			Deaf or hard of hearing	Learners	N/A	259	103	
			Blind or low vision	Learners	N/A	139	54	
			Communication or speech	Learners	N/A	39	N/A	
			Learning or intellectual	Learners	N/A	359	77	
			Physical or mobility	Learners	N/A	79	N/A	
			Other	Learners	N/A	3	N/A	
			Mainstream	Learners	N/A	0	N/A	
			SS	Learners	N/A	462	N/A	
			RC	Learners	N/A	416	N/A	
			Dalit	Learners	N/A	163	N/A	
			Muslim	Learners	N/A	32	N/A	
			Brahmin/Chhetri	Learners	N/A	283	N/A	
			Newar	Learners	N/A	125	N/A	
			Janajati	Learners	N/A	241	N/A	
			Other	Learners	N/A	34	N/A	
			Province (Bagmati)	Learners	N/A	550	140	
			Province (Madesh)	Learners	N/A	103	27	
			Province (Gandaki)	Learners	N/A	176	45	
			Province (Karnali)	Learners	N/A	49	22	
			L1	Learners	N/A	0	N/A	
			L2	Learners	N/A	0	N/A	

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal A	FA1.A.3a	Number of teaching and learning materials (TLMs) created		TLMs	N/A	388		
			NSL Video Books	TLMs	N/A	36		
			Manuals / Teaching materials for teachers or facilitators	TLMs	N/A	2		
			NSL Letter / Word with Picture Cards	TLMs	N/A	350		
			Accessible materials for learners with disabilities	TLMs	N/A	0		
			Nepali	TLMs	N/A	388		
			[Language 2]	TLMs	N/A	0		
			[Language 3]	TLMs	N/A	0		
			Accessible ICT materials	TLMs	N/A	0		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal A	FA1.A.3b	Number of teaching and learning materials (TLMs) distributed		TLMs	N/A	299018		
			Manipulatives for the learners	TLMs	N/A	7800		
			Books / Supplemental reading materials for learners	TLMs	N/A	5000		
			Manuals / Teaching materials for teachers or facilitators	TLMs	N/A	200		
			Instructional ICT materials	TLMs	N/A	285447		
			Accessible materials for learners with disabilities	TLMs	N/A	571		
			Nepali	TLMs	N/A	0		
			[Language 2]	TLMs	N/A	0		
			[Language 3]	TLMs	N/A	0		
			New	TLMs	N/A	0		
			Not new	TLMs	N/A	299018		
			Accessible ICT materials	TLMs	N/A	0		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal B	FA1.B.1	Number of teachers who are trained on UDL principles	Total	Teachers	N/A	447	73.5%	Endline evaluation values are triangulation, not final indicator values. Endline evaluation value is proportion of teachers in endline sample who report attending the 3 Days Teacher Training on UDL.
			Female	Teachers	N/A	254	76%	
			Male	Teachers	N/A	193	24%	
			Females with disabilities	Teachers	N/A	9	5.3%	
			Males with disabilities	Teachers	N/A	22	16.7%	
			Mainstream	Teachers	N/A	311	60%	
			SS	Teachers	N/A	45	16%	
			RC	Teachers	N/A	91	28%	
			Province (Bagmati)	Teachers	N/A	112	66.7%	
			Province (Madesh)	Teachers	N/A	120	75%	
			Province (Gandaki)	Teachers	N/A	115	87.5%	
			Province (Karnali)	Teachers	N/A	100	75%	

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal B	FA1.B.2	Number of teachers who are trained to use EdTech solutions	Total	Teachers	N/A	447	94.1%	Endline evaluation values are triangulation, not final indicator values. Endline evaluation value is proportion of teachers in endline sample who report using any of the EdTech provided by LEARN.
			Female	Teachers	N/A	254	56.4%	
			Male	Teachers	N/A	193	45.5%	
			Females with disabilities	Teachers	N/A	9	66.7%	
			Males with disabilities	Teachers	N/A	22	100%	
			Mainstream	Teachers	N/A	311	75%	
			SS	Teachers	N/A	45	33%	
			RC	Teachers	N/A	91	47%	
			Province (Bagmati)	Teachers	N/A	112	47%	
			Province (Madesh)	Teachers	N/A	120	57.2%	
			Province (Gandaki)	Teachers	N/A	115	61.5%	
			Province (Karnali)	Teachers	N/A	100	57.2%	

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal B	FA1.B.3	Percent of teachers who use EdTech solutions as intended	Total	Percent	N/A	79.30%	96.9%	Endline evaluation values are triangulation, not final indicator values. Endline evaluation value is proportion of teachers in endline sample who report using EdTech at least once a week on teacher survey.
			Female	Percent	N/A	82.90%	95.8%	
			Male	Percent	N/A	71.80%	100%	
			Females with disabilities	Percent	N/A	100.00%	100%	
			Males with disabilities	Percent	N/A	100.00%	100%	
			Mainstream	Percent	N/A	79.90%	94.1%	
			SS	Percent	N/A	94.10%	100%	
			RC	Percent	N/A	76.90%	100%	
			Province (Bagmati)	Teachers	N/A	80.90%	94.4%	
			Province (Madesh)	Teachers	N/A	98.10%	100%	
			Province (Gandaki)	Teachers	N/A	59.10%	100%	
			Province (Karnali)	Teachers	N/A	84.60%	100%	

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
FA1: Goal B	FA2.B.4	Number of TLM views on ACR GCD-supported digital platforms	Total	Percent	N/A		55.7%	Endline evaluation values are triangulation, not final indicator values. Endline evaluation value is proportion of teachers in endline sample who report downloading one or more apps on their own.
			Awardee platform views	Percent	N/A		N/A	
			GDL views	Percent	N/A		N/A	

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
Influence: Goal B	B.1	Number of key audience members who attend ACR GCD events	Total	Audience members	N/A	81		
			Female	Audience members	N/A	28		
			Male	Audience members	N/A	30		
			Partner HQ and field staff	Audience members	N/A	44		
			Innovators	Audience members	N/A	0		
			Implementers	Audience members	N/A	0		
			Ministry of Education staff	Audience members	N/A	10		
			Collaborators	Audience members	N/A	4		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
Influence: Goal D	D.1	Evidence that awardees receive additional investment to scale their EdTech solutions (qualitative & quantitative)	Total	Description	N/A			
				Value (USD$)	N/A			

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
Scaling and sustainability (custom)	CI 1	Number of Government stakeholders trained or oriented on use of ICTs for UDL	Total	Government stakeholders	N/A	497		
			Female	Government stakeholders	N/A	101		
			Male	Government stakeholders	N/A	396		
			Federal	Government stakeholders	N/A	7		
			Provincial	Government stakeholders	N/A	2		
			Local	Government stakeholders	N/A	486		
			Teacher trainer	Government stakeholders	N/A	11		
			Other stakeholder	Government stakeholders	N/A	478		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
Scaling and sustainability (custom)	CI 2	Number of other stakeholders (e.g. non-project INGO, OPD, NGO staff) oriented on use of ICTs for UDL	Total	Other stakeholders	N/A	69		
			INGO		N/A	17		
			Nepali NGO		N/A	14		
			Nepali OPD		N/A	38		
			Donor		N/A	0		
			Other		N/A	0		
			Persons with disabilities		N/A	33		

Objective: Goal	Indicator Number	Indicator Name	Disaggregate	Unit	Baseline (if applicable)	ITT LOP Value (June 2023)	Endline Evaluation Value (if applicable)	Notes
Scaling and sustainability (custom)	CI 3	Teacher training package on ICTs for UDL, language and literacy developed	Total	Teacher training packages	N/A			

Appendix B

ACR GCD Learning Agenda Questions

	Learning Question
Impact: Do children benefitting from EdTech have improved reading and language skills?	**1. Do ACR GCD-funded EdTech solutions impact learning outcomes?** a. What do reading and/or language outcomes tell us about ACR GCD-funded EdTech solutions? b. Under what circumstances do EdTech solutions improve reading and/or language outcomes? i. What do ACR GCD awardees identify as examples of success within their projects? ii. How do ACR GCD awardees see the technology contributing to project outcomes? iii. Are there any common characteristics of successful ACR GCD awardees? iv. What contextual factors are associated with success?
	2. To what extent are ACR GCD-supported teachers able to identify their students' functional difficulties? a. Can the Child Functioning Module-Teacher Version (CFM-TV) provide valid data on children's disability status/functional difficulties when compared with disability medical evaluations and the Child Functioning Module (CFM)?
Influence: Has ACR GCD catalyzed action to scale context-appropriate EdTech solutions that improve children's reading and language skills?	**3. Have the ACR GCD partnership and awardees adapted throughout the Round 3 initiative (2020 Competition)?** a. What knowledge was gained, or which circumstances changed, over the Round 3 initiative? b. What were ACR GCD Partners' and awardees' responses to changing knowledge or circumstances? c. Did ACR GCD Partners' and awardees' responses successfully address the changing knowledge or circumstances?
	4. Has the ACR GCD partnership built capacity to sustain the types of EdTech solutions financed in this round? a. Did ACR GCD support the capacity-building needs of ACR GCD awardees, other implementers, or stakeholders? b. What types of capacity building processes do ACR GCD awardees feel were most impactful? c. What actions is ACR GCD taking to support the creation of conditions to sustain ACR GCD-funded EdTech solutions? d. What actions have the ACR GCD partnership and awardees taken to support changes attitudes or mindsets of parents, teachers, or ministry officials in relation to children's education?
	5. Are ACR GCD awardees preparing to scale their EdTech solutions? a. What activities are ACR GCD awardees undertaking to improve: effectiveness, equitability, market demand, financial sustainability, and transferability? b. What is helping or hindering ACR GCD awardees' progress in scaling their solutions?
	6. Has ACR GCD catalyzed collaboration to promote EdTech solutions? a. What activities or products are most effective in catalyzing collaboration? b. What is helping or hindering progress in catalyzing collaboration? c. How did ACR GCD's collaboration efforts succeed in promoting EdTech solutions?

Appendix C

LEARN Evaluation Questions Mapping

Evaluation Question	ACR GCD Indicator	ACR GCD Learning Agenda Question	Reported at endline?
1. To what extent did learners receive the intended dosage of intervention (use of EdTech) based on the project's model?	FA1.A.2-4	Q1	Yes
2. What were learners' levels of satisfaction with the project's different EdTech solutions?	FA1.3 FA1.A.5	Q1 Q3	Yes
3. To what extent did teachers receive the intended dosage of intervention (training) based on the project's model?	FA1.B.1-3	Q1	Yes
4. What were teachers' levels of satisfaction with the project's trainings?		Q3	Yes
5. What were teachers' levels of satisfaction with the process of using IEPs to match learners with specialized learning materials delivered using EdTech?		Q3	Yes
6. To what extent did parents/caregivers receive the intended dosage of intervention (training) based on the project's model?	FA1.C.1-3	Q1	No
7. What were parents/caregivers' levels of satisfaction with the project's trainings?		Q3	No
8. To what extent did LEARN teachers change their knowledge, attitudes, and practices on use of EdTech and UDL for learners with disabilities?	FA1.B.4-7	Q1 Q2 Q3	Yes
9. To what extent did LEARN parents/caregivers change their knowledge, attitudes, and practices on use of EdTech for learners with disabilities?	FA1.C.4-6	Q1 Q2 Q3	No
10. Did LEARN learners' reading and/or language skills improve from baseline to endline?	FA1.1-4	Q1	Yes
11. What contextual factors–including geographic, demographic, and socioeconomic factors–were associated with beneficiaries' use or non-use of LEARN EdTech solutions?	FA1.A.4 FA1.B.3 FA1.C.3	Q1	Yes
12. How scalable is the LEARN model?	D.1 D.2	Q5	Yes

Appendix D

LEARN Indicator Reference Sheets

Focus Area 1 Goal A

Children have access to and engage with EdTech solutions grounded in UDL principles to develop reading and/or language skills.

Indicator # FA1.A.1

Number of learners in primary schools or equivalent non-school based settings reached

Phase: POC/Scale

Description

Definition: A learner is an individual who is enrolled in an education program for the purpose of acquiring academic basic education skills or knowledge. Learners who are enrolled in formal primary school, as defined by government policy, or the non-formal equivalent of primary school can be counted towards this indicator. This includes, but is not limited to, learners enrolled in government schools, NGO-run schools, religious schools, accelerated or alternative learning programs, so long as the school or program is designed to provide an education equivalent to the accepted primary-school curriculum.

LEARN will include ECD age children, which can be filtered out later for higher level reporting. (Original definition: Learners enrolled in kindergarten should NOT be included under this indicator regardless of whether kindergarten is accepted and funded by the government as an integrated component of primary education.)

Learners should be counted if they are enrolled in primary or primary-equivalent education (as defined above), and they directly benefit from USG education assistance designed to support student acquisition of academic basic education skills and knowledge. Examples of USG education assistance that fall into this category can include, but are not limited to: pedagogical training for teachers; administrator training; the provision of teaching and learning materials (TLM); training teachers on continuous assessment and remedial instruction; support for tracking and teaching students by ability groups; support for policies and procedures that increase time on task; training and support of teacher coaches; work to reduce class size; work to improve the safety of schools; support for more inclusive school environments and better socio-emotional learning outcomes; strengthening of teacher and school incentive structures; interventions to impact system performance and service delivery that are designed to produce evidence-based, measurable outcomes at the classroom level; etc.

When calculating this indicator, each learner should be counted only once for the year being reported. In other words, if a learner benefits from two overlapping reading programs or a reading program and a math program and each meets the criteria outlined here, the learner should be counted only once.This indicator should report all individual learners who were reached during the year being reported, even if some of these learners may also have been counted in previous years. In other words, if a student was counted towards this indicator in the previous fiscal year, the student can be counted towards the indicator again in the current fiscal year.

This indicator measures the number of primary-aged children reached through an ACR GCD intervention. It should include any other children that may have benefitted from an ACR GCD intervention, such as those who received training or attended events. Because measuring access is challenging, it is recommended that awardees consider access in different ways: Children who have access to an ICT platform with ACR GCD-supported TLMs on it (this could be a project-specific platform or the Global Digital Library platform); Children reached through project-specific distribution records.

Unit of Measure: Children

Method of Calculation: Sum of children

Disaggregated by: Sex (male; female); Age (exact); Age (over-age, under-age, appropriate grade age); School type (mainstream / SS / RC); Learner type (disability, no disability, struggling learner); Grade (ECD, 1, 2, 3, non-school); Ethnicity (Dalit, Muslim, Brahmin / Chhetri, Newar, Janajati, and Other); Province; Language (L1 / L2)

Analysis

Data Collection Method: LEARN will compile records on the number of children reached through their project, through trainings, through access to technologies, and/or through receipt of TLMs produced by the project. Awardees should document any other mechanisms through which their intervention has reached primary school-aged children beyond those listed above. LEARN will keep records of all children reached through the project. Records will primarily be based on school enrollment records for early grade classes with teachers receiving project support. Supplemental records will capture any children reached through non-formal programs. School data will be cross-checked against EMIS records.

Data Source: Project records

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer, OPD M&E Officers

Indicator # FA1.A.2

Number of children with disabilities who have access to EdTech solutions *(This indicator was phased out)*

Phase: POC/Scale

Description

Definition: A learner is an individual who is enrolled in an education program for the purpose of acquiring basic education skills. Learners who are enrolled in formal primary school or the non-formal equivalent of primary school can be counted towards this indicator. This includes, but is not limited to, learners enrolled in government schools, NGO-run schools, religious schools, accelerated or alternative learning programs, so long as the school or program is designed to provide an education equivalent to the accepted primary-school curriculum and leveled at grade 2. The 2018 USAID Education Policy defines children and youth with disabilities as those who have long-term physical, mental, intellectual, or sensory impairments that in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. This indicator measures the number of children with disabilities who have access to EdTech solutions that are provided through ACR GCD funding. It is recommended that awardees consider access in different ways: Children who have access to an ICT platform with ACR GCD-supported TLMs on it (this could be a project-specific platform or the Global Digital Library platform); Children reached through project-specific distribution records.

Unit: Children

Method of Calculation: Sum of children

Disaggregated by: Sex (male; female); Age (exact); Age (over age, under age, appropriate grade -age); Disability/impairment type (vision, hearing, physical, communication, cognitive); School type (mainstream / SS / RC); Learner type (disability, no disability, struggling learner); Grade (ECD, 1, 2, 3, non-school); Ethnicity (Dalit, Muslim, Brahmin / Chhetri, Newar, Janajati, and Other); Province; Language (L1 / L2)

Analysis

Data Collection Method: LEARN staff and targeted teachers will compile records on number of unique children with disabilities who are accessing EdTech solutions, primarily through staff monitoring visits, IEPs, and teacher records.

Data Source: Project records

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer, OPD M&E Officers

Indicator # FA1.A.3

Number of teaching and learning materials (TLMs) provided

Phase: POC/Scale

Description

Definition: Textbooks and other teaching and learning materials (TLMs) are the aids used by educators to help in teaching/instructing effectively and the aids used by the learner/student to help in learning more effectively. Examples of TLMs include, but are not limited to, the following: textbooks; reading materials; student workbooks; supplementary reading books; educational CDs; library books; reference material in paper or electronic formats; support material for educational radio and TV broadcasts (Note: these should be counted the year they are first disseminated not later years in which they may be accessed); teacher manuals and guides; manuals and guides for coaches and teacher trainers; etc. This indicator captures the number of TLMs produced and/or distributed via ACR GCD-funded EdTech solutions. If materials are both produced and distributed by an awardee, they should only be counted once.

Note: LEARN will count both hard copy and non-ICT materials, and disaggregate to allow only EdTech counts to be filtered up for higher level reporting (Original definition: If materials are only produced/ distributed in hard copies and are not accessible through EdTech solutions, they should not be counted under this indicator).

Unit: TLM

Method of Calculation: Sum TLMs provided using EdTech solutions

Disaggregated by: Type of material (Books/supplemental reading materials for learners; teaching materials for teachers; manuals and guides for coaches; manuals and guides for teacher trainers; instructional ICT materials; accessible materials for learners with disabilities); Language; New; not new; Medium of provision (Edtech / non-EdTech)

Analysis

Data Collection Method: LEARN will keep records of TLMs produced and adapted; records of TLMs distributed (made accessible for use by teachers / learners)

Data Source: Project records

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.A.4

Percentage of children who use EdTech solutions as intended *(This indicator was phased out)*

Indicator # FA1.A.5

Percentage of children who report that EdTech solutions meet their needs *(This indicator was phased out)*

Phase: Scale

Description

Definition: This indicator measures perceptions of whether or not a solution is meeting needs. This is important to understand, as children's usage of the EdTech solution is likely dependent on how beneficial, engaging, and useful it is to them. It is also important to better understand an EdTech solution's potential for scale. Solutions that are perceived as beneficial and useful to users have a better chance to be scaled.

Data for this indicator may also provide critical formative information to the awardee, so any necessary learning and adapting can take place to improve the way children experience the EdTech solution.

Unit of Measure: Percent

Method of Calculation: From sample: (Number of children who report that EdTech solutions meet their needs) / (Total number of children) x 100

Disaggregated by: Sex (male; female); Age (exact); Age (over age, under age, appropriate grade age); Disability (males with disabilities; females with disabilities); School type (mainstream / SS / RC); Learner type (disability, no disability, struggling learner); Grade (ECD, 1, 2, 3, non-school); Ethnicity (Dalit, Muslim, Brahmin/Chhetri, Newar, Janajati, and Other); Province; Language (L1 / L2)

Analysis

Data Collection Method: Questionnaire / Checklist will be developed that ask children about their satisfaction with the EdTech solution and if it is meeting their needs. The questions will be in simple language and easily understandable to the comprehension level of children served by the solution. Even images (smiley faces and sad faces) or audio instead of text will be used depending upon appropriateness. If an EdTech solution cannot administer questions through its platform, a monitoring tools will be designed to ask students routinely by enumerators.

Data Source: EdTech solution data; Project Monitoring Tools/Checklist

Baseline Required: No

Frequency: Once

Responsible: LEARN M&E Officer; OPD M&E Officers

Focus Area 1 Goal B

Teachers use EdTech solutions to nurture the reading and/or language skills of children with disabilities through UDL principles.

Indicator # FA1.B.1

Number of teachers who are trained on UDL principles

Phase: POC/Scale

Description

Definition: Teachers are individuals whose professional activity involves the transmitting of knowledge, attitudes, and skills that are stipulated in curriculum directly to students participating in a formal or non-formal educational opportunity. Teachers may work in formal or non-formal settings and institutions. They may be employed by public organizations (e.g. school) or private organization (e.g. school, NGO, for-profit organization). Examples include, but are not limited to, the following: teachers, teaching assistants, instructors, etc. 'Educators' can include librarians who are involved in transmitting knowledge, attitudes, and skills that are stipulated in the curriculum directly to students.

Professionals who work in the education sector but whose primary function is not to transmit knowledge directly to students should not be counted as educators. Examples of individuals who should not be counted as educators include, but are not limited to: school administrators such as principals (unless principals also teach), ministry officials, supervisors, and teacher trainers (if these teacher trainers are not also teachers).

To be counted under this indicator, teachers should receive training on UDL and inclusive education.

Training on inclusion education and how to support children with disabilities in classroom needs to go beyond introducing basic concepts and benefits of inclusive education to also focus on effective instructional approaches, including techniques to support literacy acquisition. It is important that teacher training also reflect on the local reality of teachers within a country and avoid importing training without adapting it to the local context. It is vital that teacher training be followed up with hands-on experience for teachers to use the skills they have learned related to literacy acquisition and slowly build confidence in their ability to provide inclusive education (Hayes and Bulat, 2017).

Subjects: individualized education plans (includes literacy goals, documenting student strengths/challenges, details what accommodations might be effective, social and behavioral considerations); teacher attitudes, inclusive education and effective instructional approaches.

Unit of Measure: Teachers

Method of Calculation: Sum of teachers

Disaggregated by: Sex (male; female); Age (exact); Age (over age, under age, appropriate grade age); Disability status; School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Training attendance collected for each day/session of training by LEARN M&E staff. Each teacher will be counted only once for the life of the project, regardless of the number of training activities he/she participates in.

Data Source: Attendance records

Baseline Required: No

Frequency: Annual (Quarterly if major updates)

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.2

Number of teachers who are trained on EdTech solutions

Phase: POC/Scale

Description

Definition: Teachers are individuals whose professional activity involves the transmitting of knowledge, attitudes, and skills that are stipulated in curriculum directly to students participating in a formal or non-formal educational opportunity. Teachers may work in formal or non-formal settings and institutions. They may be employed by public organizations (e.g. school) or private organization (e.g. school, NGO, for-profit organization). Examples include, but are not limited to, the following: teachers, teaching assistants, instructors, etc. 'Educators' can include librarians who are involved in transmitting knowledge, attitudes, and skills that are stipulated in the curriculum directly to students.

Professionals who work in the education sector but whose primary function is not to transmit knowledge directly to students should not be counted as educators. Examples of individuals who should not be counted as educators include, but are not limited to: school administrators such as principals (unless principals also teach), ministry officials, supervisors, and teacher trainers (if these teacher trainers are not also teachers).

Unit of Measure: Teachers

Method of Calculation: Sum of teachers

Disaggregated by: Sex (male; female); Age (exact); Age (over age, under age, appropriate grade age); Disability status; School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Training attendance collected for each day/session of training by LEARN M&E staff. Each teacher will be counted only once for the life of the project, regardless of the number of training activities he/she participates in.

Data Source: Attendance records

Baseline Required: No

Frequency: Annually (Quarterly if major updates)

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.3

Percentage of teachers who use EdTech solutions as intended

Phase: POC/Scale

Description

Definition: This indicator measures implementation fidelity.

"As intended" will vary by ICT and context, and will be defined by a combination of teacher training guidance (to be developed by LEARN), IEPs for individual students, and use plans at the school and/or classroom level.

This information is particularly useful to understand how different levels of exposure to the Edtech solution impact intended learning outcomes. Data for this indicator may also provide critical formative information to the awardee on how the project is being implemented, so any necessary learning and adapting can take place to improve implementation fidelity.

Unit of Measure: Percent of teachers

Method of Calculation: (Number of teachers meeting dosage threshold) / (Total number of teachers) x 100

Disaggregated by: Sex (male; female); Age (exact); Age (over age, under age, appropriate grade age; Disability status; School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Classroom observation conducted by LEARN M&E staff (As feasible, COVID permitting); Teacher action research diaries; Teacher KAP survey conducted by LEARN M&E staff before training, at midpoint and at end of project

Data Source: Classroom observation records; Teacher action research diaries; teacher KAP survey

Baseline Required: No

Frequency: Annually (Quarterly if major updates)

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.4

Percentage of teachers who increase the number of UDL principles they use in their classroom (practice)
(This indicator was phased out)

Phase: POC/Scale

Description

Definition: This indicator measures teachers' application of UDL principles in their classroom. Using a Knowledge Attitude Practices (KAP) approach, this indicator looks at practice. This indicator will allow awardees to understand if the training provided on UDL principles and practices have been adopted and implemented by teachers.

The UDL principles that should be considered for this indicator are:

- Multiple means of engagement
- Multiple means of representation
- Multiple means of action and expression

Unit of Measure: Percent of teachers

Method of Calculation: (Number of teachers who increase the number of UDL principles they use in their classroom) / (Total number of teachers) x 100

Disaggregated by: Sex (male; female); School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Teacher KAP survey conducted by LEARN M&E staff before training, at midpoint and at end of project

Data Source: Teacher KAP survey; training pre- and post- survey

Baseline Required: Yes

Frequency: Annually (Quarterly if major updates)

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.5

Percentage of teachers who demonstrate increased knowledge of UDL principles (knowledge)
(This indicator was phased out)

Phase: Scale

Description

Definition: This indicator measures teachers' application of UDL principles in their classroom. Using a Knowledge Attitude Practices (KAP) approach, this indicator looks at practice. This indicator will allow awardees to understand if the training provided on UDL principles and practices have been adopted and implemented by teachers.

The UDL principles that should be considered for this indicator are:

- Multiple means of engagement
- Multiple means of representation
- Multiple means of action and expression

Unit of Measure: Percent of teachers

Method of Calculation: (Number of teachers who increase the number of UDL principles they use in their classroom) / (Total number of teachers) x 100

Disaggregated by: Sex (male; female); School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Teacher KAP survey conducted by LEARN M&E staff before training, at midpoint and at end of project

Data Source: Teacher KAP survey; training pre- and post- survey

Baseline Required: Yes

Frequency: 3 times: baseline, midline, endline

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.6

Percentage of teachers who show improved beliefs about the ability of UDL to support the reading and/or language skills of children with disabilities (attitude) *(This indicator was phased out)*

Phase: POC/Scale

Description

Definition: This indicator measures teachers' knowledge of UDL principles. This indicator will allow awardees to understand if the training provided on UDL principles and practices have been understood by teachers.

The UDL principles that should be considered for this indicator are:

- Multiple means of engagement
- Multiple means of representation
- Multiple means of action and expression

Unit of Measure: Percent of teachers

Method of Calculation: (Number of teachers showing improved beliefs about the ability of UDL to support the reading and/or language skills of children with disabilities) / (Total number of teachers) x 100

Disaggregated by: Sex (male; female); School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Teacher KAP survey conducted by LEARN M&E staff before training, at midpoint and at end of project

Data Source: Teacher KAP survey; training pre- and post- survey

Baseline Required: Yes

Frequency: 3 times: baseline, midline, endline

Responsible: LEARN M&E Officer; OPD M&E Officers

Indicator # FA1.B.7

Percentage of teachers who show improved beliefs about the ability of EdTech solutions to support the reading and/or language skills of children with disabilities (attitude) *(This indicator was phased out)*

Phase: POC/Scale

Description

Definition: This indicator measures teachers' beliefs about how UDL principles can support the learning outcomes of children with disabilities. Using a Knowledge Attitude Practices (KAP) approach, this indicator looks at attitude. This indicator will allow awardees to understand if the training provided on UDL principles and practices have changed teachers' attitudes about the capacities of their students.

The UDL principles that should be considered for this indicator are:

- Multiple means of engagement
- Multiple means of representation
- Multiple means of action and expression

Unit of Measure: Percent of teachers

Method of Calculation: Number of teachers showing improved beliefs about the ability of EdTech to support the reading and/or language skills of children with disabilities) / (Total number of teachers) x 100

Disaggregated by: Sex (male; female); School type (if RC/SS, then disability category); Province

Analysis

Data Collection Method: Teacher KAP survey conducted by LEARN M&E staff before training, at midpoint and at end of project

Data Source: Teacher KAP survey; training pre- and post- survey

Baseline Required: Yes

Frequency: 3 times: baseline, midline, endline

Responsible: LEARN M&E Officer; OPD M&E Officers

Focus Area 1 Goal C

Parents and communities understand how to use EdTech solutions to support the reading and/or language skills of children with disabilities.

Indicator # FA1.C.1

Number of parents and community members who are trained to use EdTech solutions
(This indicator was phased out)

Indicator # FA1.C.2

Number of parents and community members trained to support the reading and/or language skills of children with disabilities *(This indicator was phased out)*

Phase: POC/Scale

Description

Definition: Training of parents or community members to support the reading and/or language skills of children with disabilities can include efforts to promote participation of parents (or guardians) and other community members in after-school activities, reading or math clubs, tutoring services, community reading/storytelling events, community-based learning assessment efforts, advocacy and school accountability efforts,and/or sponsorship or fundraising initiatives for supplemental educational materials. Training activities counted under this indicator must include explicit linkages to supporting reading and/or language skill of children with disabilities.

"Parents" are defined as parents or guardians of children benefiting from USAID-funded education programming. "Community members" are defined as individuals residing in communities where children affected by USAID-funded programming live. Examples may include youth volunteers, members of faith-based organizations, community leaders, members of community-based organizations, among others. Parents or community members who benefit from services or training delivered by other trainees as part of a deliberate service delivery strategy (e.g. cascade training) are counted.

Parent/caregiver training is not a major focus of LEARN. Training will occur through brief orientation sessions, parent-teacher meetings, and home visits. Support will be needs-based rather than follow a scripted training design. Training will be defined as at least 1 hour of engagement and support to parents focused on supporting literacy and language development of children with disabilities.

Unit of Measure: Parents or community members

Method of Calculation: Sum of parents or community members

Disaggregated by: Sex (male; female); disability status; parent/caregiver/community member

Analysis

Data Collection Method: Attendance records collected by World Education, OPD partner staff at parent and community engagement events

Data Source: Attendance records; meeting records; home visit records

Baseline Required: No

Frequency: Quarterly

Responsible: M&E Officer; OPD M&E Officers

Indicator # FA1.C.3

Percentage of parents and community members who use EdTech solutions as intended
(This indicator was phased out)

Indicator # FA1.C.4

Percentage of parents and community members who feel more prepared to support the reading and/or language skills of children with disabilities (attitude) *(This indicator was phased out)*

Phase: Scale

Description

Definition: This indicator measures parents' and community members' beliefs about their preparedness to support support the reading and/or language skills of children with disabilities. Using a Knowledge Attitude Practices (KAP) approach, this indicator looks at attitude. This indicator will allow awardees to understand if trainings provided to parents and community members on reading and/or language skills support have changed their attitudes.

Unit of Measure: Percent

Method of Calculation: (Number of parents and community members who feel more prepared) / (Total number of parents and community members) x 100

Disaggregated by: Sex (male; female); disability status; parent/ caregiver/ community member

Analysis

Data Collection Method: Parent/ community member KAP survey

Data Source: KAP survey

Baseline Required: Yes

Frequency: Baseline, midline, endline

Responsible: M&E Officer; ODP M&E Officers

Indicator # FA1.C.5

Percentage of parents and community members who show improved beliefs about the ability of UDL to support the reading and/or language skills of children with disabilities (attitude)
(This indicator was phased out)

Indicator # FA1.C.6

Percentage of parents and community members who have improved knowledge of how EdTech solutions support the reading and/or language skills of children with disabilities (knowledge)
(This indicator was phased out)

Focus Area 2 Objective

Books provided through EdTech solutions enable marginalized children to learn in languages they use and understand.

Indicator # FA2.B.4

Number of TLM views on ACR GCD supported digital platforms

Phase: Scale

Description

Definition: Teaching Learning Materials: see definition above.

Views: as defined by specific platform (e.g. GDL book views, Feed the Monster downloads)

ACR GCD supported digital platforms are those platforms that have been developed with or are currently supported by ACR GCD funding; these include, for example, the Global Digital Library, Feed the Monster, etc.

Unit of Measure: Views/downloads

Method of Calculation: Sum of view/download counts

Disaggregated by: Platform (e.g. GDL, FTM, etc.); TLM type (e.g. ePub, app, etc.)

Analysis

Data Collection Method: LEARN will make efforts to collaborate with organizations hosting ACR GCD-supported platforms to gather data

Data Source: Host data

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer

Influence Objective

ACR GCD catalyzes action to expand the reach of context-appropriate EdTech solutions that improve children's reading and language skills.

Influence Goal B

ACR GCD convenes its key audiences to catalyze collaboration, share knowledge, and encourage usage and scale-up of EdTech solutions.

Indicator # B1

Number of key audience members who attend ACR GCD events (virtual or in-person)

Phase: POC/Scale

Description

Definition: Key audience members are defined as:

- Partner HQ and field staff: Staff working in a HQ or field office
- Doers: Innovators and education implementers
- Policymakers and Ministries of Education: Staff of an MoE in a developing country
- Partners/Collaborators: Partners that provide subject matter credibility, funding, or scaling opportunities/platforms

Collaborating with ACR GCD is defined as contacting an ACR GCD awardee to use, contextualize, scale or provide further funding or enhancement to their ACR GCD-funded project/solution.

Unit of Measure: Key audience members

Method of Calculation: Survey and/or interview responses from ACR listserv and ACR GCD awardees

Disaggregated by: Sex (male; female); persons with disability; ACR GCD category: Partner HQ & field staff / doers / policy makers and MoEST staff / partners and collaborators

Analysis

Data Collection Method: ACR GCD survey back up: attendance and/ or meeting minutes from trainings, briefings, consultations, etc.

Data Source: ACR survey; project records

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer; OPD M&E Officers

Influence Goal D

ACR GCD awardees leverage their award to expand the reach of their EdTech solutions.

Indicator # D1

Evidence that awardees receive additional investment to scale their EdTech solutions (qualitative)

Phase: POC/Scale

Description

Definition: Evidence: documentation of commitment to provide investment or documentation of investment.

Investment to scale EdTech solution: financial, human, in-kind resources dedicated to replicating, expanding, or providing support beyond ACR GCD funds.

Unit of Measure: n/a

Method of Calculation: qualitative

Disaggregated by: Source

Analysis

Data Collection Method: LEARN will document commitments, verbal and written, as well as received funds

Data Source: Project records

Baseline Required: No

Frequency: Quarterly

Responsible: LEARN M&E Officer; OPD M&E Officers

Scaling & Sustainability

Indicator # CI 1

Number of Government stakeholders trained or oriented on use of ICTs for UDL

Phase: POC/Scale

Description

Definition: Government stakeholders are defined as persons with an interest or stake in the project's work who represent the Government of Nepal at any level.

Oriented is defined as participating in trainings, educational sessions, and/or participatory sessions for a minimum of 3 hours.

Unit of Measure: Government of Nepal stakeholder

Method of Calculation: Sum total of unique stakeholders meeting minimum time threshold

Disaggregated by: Sex (male; female); GoN level (federal / provincial / local); Teacher trainer / other stakeholder

Analysis

Data Collection Method: Attendance collected at trainings/ orientations

Data Source: Attendance records

Baseline Required: No

Frequency: Quarterly

Responsible: M&E Officer; OPD M&E Officers

Indicator # CI 2

Number of other stakeholders (e.g. non-project INGO, OPD, NGO staff) oriented on use of ICTs for UDL

Phase: POC/Scale

Description

Definition: Other stakeholders is defined as persons not included in other indicators (i.e. not government, teachers, parents) who have a vested interest in work the project undertakes and can benefit from sharing in and replicating the project's work and learnings. These are likely to include NGO, OPD, and INGO staff working on other projects in the education sector that may be interested in applying UDL and ICT4E strategies, and donor representatives interested in supporting inclusive education work.

Oriented is defined as participating in trainings, educational sessions, and/or participatory sessions for a minimum of 3 hours.

Unit of Measure: Stakeholders

Method of Calculation: Sum of unique stakeholders meeting minimum time threshold

Disaggregated by: Sex (male; female); Organization type (INGO, Nepali NGO, Nepali OPD, donor, other); Persons with disability

Analysis

Data Collection Method: Attendance collected at trainings/ orientations

Data Source: Attendance records

Baseline Required: No

Frequency: Quarterly

Responsible: M&E Officer; OPD M&E Officers

Indicator # CI 3

Teacher training package on ICTs for UDL, language and literacy developed

Phase: POC/Scale

Description

Definition: Teacher training package is defined as a stand-alone set of teacher training guidance, plans, resources.

Developed is defined as those that are newly created by the project, completed and submitted to GoN for approval and use (not necessarily approved by GON).

Unit of Measure: Teacher training packages

Method of Calculation: Sum of teacher training packages

Disaggregated by: n/a

Analysis

Data Collection Method: LEARN project will document completion and submission to GON

Data Source: Project records

Baseline Required: No

Frequency: Upon completion and end of project (progress updates with quarterly reporting)

Responsible: M&E Officer; OPD M&E Officers

Appendix E
Deaf or Hard of Hearing Scoring

Before the baseline, the LEARN team and STS discussed the challenges related to live scoring an EGRA for learners who are deaf or hard of hearing. Live scoring requires enumerators to look at the learner and the tablet rapidly, potentially leading to the inaccurate marking of learners' responses. In previous EGRAs, STS has addressed this challenge through two different solutions: first, video-recording the learners' responses and rescoring the assessment by watching the videos, and second, making subtasks untimed. The LEARN team determined that removing the fluency measure from timed subtasks was impossible because of the protocols approved for the EGRA by the Government of Nepal.

As a result, LEARN and STS agreed to video record learners' responses on the EGRA for both baseline and endline to allow scoring of timed subtasks asynchronously for accuracy. On days 5 and 6 of enumerator training, STS's facilitators worked with assessors to establish best practices for video recording learners during the assessment, to practice setting up the tablets to record the learners, and to determine the live scoring protocols that enumerators should follow during the EGRA (see Figure 28).

FIGURE 29
Video Recording Protocols

At the beginning of day:

- Make sure there is enough storage space in the tablet; review the location where the video will be stored on the tablet (device versus SD card)

At beginning of day – positioning the video tablet: [a]

- Position the tablet's camera so that it is:
  - » At or close to eye level
  - » Centered or close to centered on the learner
  - » Far enough away so that the learner's signs are not cut off by the camera; signing upwards, downwards and to the sides must be visible
- Not distracting for the learner; do not have the tablet screen facing the learner
- Test lighting for shadows and contrast; make the most use of natural light while paying attention to shadows that may appear throughout the day
  - » The learner should not be backlit or have windows behind them
- Make sure that learner is clear and visible in the camera

a See Veinberg (2019) for additional guidance.

At the start of each assessment:

- Write down the learner's Tangerine unique ID before the enumerator begins the assent on a small piece of paper
- After learner assents to being videoed, press the "record" button
- Place the piece of paper with the learner's Tangerine unique ID in front of the camera
- Confirm that video is recording

During each assessment:

- Check tablet periodically during each assessment (at start of each timed subtask) to make sure that the assessment is being recorded properly

After each assessment:

- Press "stop" and check that recording was saved properly
- Check tablet and SD card storage capacity

At end of each day:

- Rename each video file on the tablet to the learner's Tangerine unique ID

During the live EGRA administration, STS and LEARN instructed enumerators to:

- Score untimed subtasks—NSL comprehension and reading comprehension;
- Score timed subtasks up to the autostop to trigger an autostop, if applicable;
- Not score timed subtasks after an autostop, in which case all items were counted as correct; and
- Mark the last item attempted on timed subtasks.

Following the end of data collection, LEARN hired two deaf scorers to review each video together and score the assessments in SurveyCTO[29] based on a protocol designed by STS.[30] Video scorers had to review and score timed subtasks for all learners, except on subtasks for which a learner autostopped.[31] Video scorers also did a full quality control review and score on 13 random records—six for one enumerator and seven for the other. These were used to understand the extent to which enumerators accurately scored the full assessment, using the video score record as a "gold standard." In addition to marking correct or incorrect, video scorers also had the option of marking an item as "not scorable" due to the quality of the video—for instance, if the camera angle is poor or the video does not show the learner.

Following the baseline video-scoring process, STS analyzed assessor agreement between the live and video scores. The agreement results show how well live scorers can accurately mark an assessment in real-time, using a video recording as a gold standard. The agreement was computed on untimed subtasks for the 13 baseline and 10 endline quality control records using all records and only records that did not include items marked as "cannot rescore." The agreement was also computed for all records needing rescoring on timed

29 SurveyCTO is a mobile data collection platform.

30 At baseline, one of the deaf scorers had attended the enumerator training and was familiar with administration protocols. Endline scoring used the same deaf scorers as baseline.

31 Both video scorers reviewed and agreed upon a score together.

subtasks up to the autostop. Assessor agreement by subtask is presented in Table 14. Agreement scores were highest among vowel, consonant, and letter matra identification subtasks, with a lower agreement between familiar word identification and passage reading fluency scores.

TABLE 14
Assessor Agreement Between Live and Video Score

Subtask	Baseline N	Baseline mean agreement (%)	Endline N	Endline mean agreement (%)
NSL comprehension—all records (three items)	13	30.8%	10	33.3%
NSL comprehension—excluding records marked as "cannot rescore" (three items)	5	100.0%	9	37.3%
Vowel identification (six items)	97	80.2%	100	83.7%
Consonant identification (six items)	97	93.1%	100	94.0%
Letter matra identification (six items)	97	78.9%	100	83.7%
Familiar word identification (six items)	97	49.1%	100	60.7%
Passage reading fluency (eight items)	97	14.9%	100	34.3%
Reading comprehension—all records (five items)	13	15.4%	10	28.0%
Reading comprehension—excluding records marked as 'cannot rescore' (five items)	2	100.0%	9	37.0%

Additionally, STS analyzed agreement on items with regional or multiple variations that could be counted as correct. This was done to determine that any variation in assessor agreement between the live score and video score was not a result of enumerators considering—or not considering—correct NSL variations. According to the participants in the baseline training, there were no NSL variations on the vowel identification, consonant identification, or letter matra identification subtasks. Five items had variations on the familiar word identification subtask and three items had variations on the passage reading fluency subtask. Only one item per subtask appeared before the autostop. Because live scorers only marked up to the autostop, the agreement on items with variation was computed on two items total. For the familiar word item 5, which had two possible correct signs, the live and video scorers agreed on the scoring 91.1 percent of the time at baseline. In contrast, on passage reading fluency item 6, the live and video scorers agreed 93.0 percent of the time at baseline. These results indicate that regional variations likely do not drive differences in assessor agreement.

Appendix F
Endline Tools

EGRA - Deaf and Hard of Hearing

SCHOOL-TO-SCHOOL INTERNATIONAL

MASTER EGRA

ACR UnrestrICTed—Nepal World Education LEARN

Students who are deaf/hard of hearing[32]

March 2023

A note about this document:

This document is the master version of the EGRA tool. It should be updated continuously as changes are made to the tool items and instructions. It should serve as the final documentation of the EGRA tool. The final paper and Tangerine versions of the EGRA, as well as the final stimuli, should reflect the content in this document.

The document provides templates for a variety of subtasks. These templates can be deleted or duplicated as needed based on the subtasks included in the EGRA.

[32] Kokila font (Unicode) was used in the student stimuli using the following font sizes: 50 for letter identification, 48 for matra and word identification, and 45 for reading passages.

Assent

Enumerator Help

<u>सामान्य निर्देशनहरूः</u>

सबैभन्दा पहिले विद्यार्थीसँग छोटो कुराकानी गरी रमाइलो र सहज वातावरण बनाउनुहोस् । (उदाहरणको लागि तल दिइएका शीर्षकहरू हेर्नुहोस् ।) यो प्रश्नावलीलाई विद्यार्थीले परीक्षाको रूपमा नलिई एउटा खेलको रूपमा रमाइलोको लागि लिन आवश्यक हुन्छ । यही समयमा बालबालिकालाई कसरी कुराकानी गर्दा बढी सहज हुन्छ भन्ने कुरामा ध्यान दिनुहोला । बाकसमा दिइएका खण्डहरू आफ्नो लागि मात्रै विस्तारै पढ्नुहोला र विद्यार्थीलाई बुझ्ने भाषामा मिलाएर भन्नुहोला ।

मेरो नाम __ हो । म __ मा बस्छु । म तपाईंलाई मेरो बारेमा केही कुरा भन्न चाहन्छु ।(कार्यान्वयनकर्ताले आफ्नो उमेर, बच्चाहरूको सङ्ख्या, मनपर्ने खेल, रेडियो कार्यक्रम आदिको बारेमा बताउनुहोस् ।)

(१) **तपाईलाई विद्यालय नआएको बेला के गर्न मन पर्छ?** (प्रतिक्रियाको लागि पर्खनुहोला । यदि विद्यार्थीले उत्तर दिन इच्छा नगरेमा प्रश्न नं. २ सोध्नुहोला । तर यदि उनीहरूले सहज रूपमा उत्तर दिने देखिएमा मौखिक सहमतिमा अगाडि बढाउनुहोला ।)

(२) **तपाईलाई कस्ता खेलहरू खेल्न मनपर्छ ?**

(३) **तपाईलाई मनपर्ने खानेकुरा के हो ?**

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

हामीहरू बालबालिकाले कसरी पठन सिप सिक्दछन् भनी बुझ्न कोशिश गरिरहेका छौं । तपाईलाई यो कार्यमा छनौट गरिएको छ ।

यस कार्यमा हामीलाई तपाईको सहयोग चाहिन्छ । यदि तपाईलाई यस कार्यमा भाग लिन मन नलागेमा मलाई भन्न सक्नुहुनेछ ।

हामी एउटा पठन खेल खेल्न गइरहेका छौं । म तपाईलाई केही अक्षरहरू, शब्दहरू र एउटा छोटो कथा पढ्न लगाउनेछु र सुनाउनेछु ।

यो ट्याब्लेट प्रयोग गरेर, म तपाईंलाई पढ्न कति समय लाग्छ हेर्नेछु ।

यो परीक्षा होइन र यसले तपाईको विद्यालयको पढाइलाई कुनै असर गर्ने छैन ।

म तपाईको परिवारको बारेमा केही प्रश्नहरू पनि सोध्नेछु, जस्तैः तपाईको परिवारले घरमा बोल्ने भाषा र परिवारमा भएका केही सामानहरू आदि ।

यदि तपाई चाहानु हुन्न भने सहभागी नहुन सक्नुहुनेछ । हामीले सुरु गरेपछि पनि तपाईले प्रश्नको उत्तर दिन नचाहे पनि फरक पर्ने छैन ।

तपाईसँग कुनै प्रश्नहरू छन् ?

के तपाई सुरु गर्न तयार हुनुहुन्छ ?

Task 1. Sign Language Comprehension

Enumerator Help

Read the directions to the child. This is NOT a timed subtask. Play the video of the story TWO TIMES. Read slowly (about 1 word per second).

Ask all of the questions. Do not allow the child to look at the passage or the questions.

Repeat a question one time if the student does not respond after 10 seconds or if the student asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as "incorrect" and move on to the next question.

If the student does not respond, mark the item as "no response." If the student says they do not know the answer, mark the item as "incorrect." If a student responds with an answer similar to one provided on the tablet, mark the item as "correct."

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईलाई एउटा सानो कथा सांकेतिक भाषामा बताउनेछु/ भिडियो देखाउनेछु । त्यसपछि तपाईलाई म केही प्रश्नहरू सोध्नेछु । कृपया ध्यानपूर्वक हेर्नुहोस् र सकेसम्म राम्रोसँग उत्तर दिनुहोस् ।

खरायो जङ्गल गयो । बाटोमा ठूलो पानी पऱ्यो । खरायो डरायो । ऊ दौडेर गुफाभित्र पस्यो । खरायो पानीबाट बच्यो । ऊ धेरै खुशी भयो ।

#	*Question*	Answer
1	खरायो कहाँ गयो ?	[जङ्गल]
2	पानीदेखि डराएर खरायो कहाँ पस्यो ?	[गुफाभित्र]
3	खरायो केबाट बच्यो ?	[पानीबाट]

Task 2. Letter Name Identification (Vowel and Consonant)

Enumerator Help

Show the child the sheet of letters as you read the instructions.

Start the timer when the child reads the first letter. Fingerspelling is allowed.

Follow along on your tablet and mark any incorrect letters by touching that letter on the screen—it will turn blue. If you make a mistake and mark a letter incorrect, you can correct the mistake by touching the letter again. It will turn white again.

Stay quiet, except if the child stops on a letter for 5 seconds. Then point to the next letter and say, "Please go on." Mark the skipped letter as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final letter read by touching it. The final letter read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last letter. The last letter will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 letters (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वणर्मालाका अक्षरहरू राखिएका छन् । कृपया तपाईले जानेसम्म यी अक्षरहरूलाई औंला हिज्जे गर्नुपर्नेछ ।

["अ" सङ्केत गर्नुहोस्] **उदाहरणको लागि, यो "अ" अक्षर हो भनी औंला ला हिज्जे गर्नुहोस् ।**

["ग" सङ्केत गर्नुहोस्] **अब यो कुन अक्षर हो भनी औंला हिज्जे गर्न लगाउनुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "ग" अक्षर हो भनी औंला ला हिज्जे गर्नुहोस् ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "ग" अक्षर हो भनी औंला ला हिज्जे गर्नुहोस् ।**

["न" सङ्केत गर्नुहोस्] **एक पटक फेरि प्रयास गर्नुहोस । यो कुन अक्षर हो भनी औंला ला हिज्जे गर्न लगाउनुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "न" अक्षर हो भनी औंला ला हिज्जे गर्नुहोस् ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "न" अक्षर हो भनी औंला ला हिज्जे गर्नुहोस् ।**

जब म सुरु गर्न भन्छु, तपाईले अक्षरहरु औंला हिज्जे गर्नुहोस् । प्रत्येक अक्षरलाई औंला हिज्जे गर्नुहोस् । तपाईले सकेसम्म चाँडो तर ध्यान पूर्वक औंला हिज्जे गर्न सक्नु हुनेछ ।

यदि तपाईले औंला हिज्जे गर्न नसक्ने अक्षर पाएमा अर्को अक्षर संकेत गर्न सक्नु हुनेछ ।

हुन्छ ? ल अब तपाई सुरु गर्नुहोस् ।

Examples अ ग न

1	2	3	4	5	6	
ई	उ	अ	इ	ए	आ	6
ओ	औ	अं	ऋ	ऊ	ऐ	12
अः						18

म	ल	स	क	न	र	6
य	द	ह	प	ब	त	12
छ	च	ख	ट	ज	ग	18
भ	फ	ड	व	थ	ध	24
श	ठ	घ	ढ	ङ	झ	30
त्र	ण	ष	क्ष	ञ	ज्ञ	36

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 3. Letter Matra Identification

Enumerator Help

Show the child the sheet of matras as you read the instructions.

Start the timer when the child reads the first matra. Fingerspelling is allowed.

Follow along on your tablet and mark any incorrect matras by touching that letter on the screen—it will turn blue. If you make a mistake and mark a matra incorrect, you can correct the mistake by touching the matra again. It will turn white again.

Stay quiet, except if the child stops on a matra for 5 seconds. Then point to the next matra and say, “Please go on.” Mark the skipped matra as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final matra read by touching it. The final matra read will be outlined in orange. Then press “Next.”

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last matra. The last matra will be automatically outlined in orange. Then press “Next.”

Early stop rule: If the child does not provide a single correct response for the first 6 matras (the first line), the screen will flash red, and the timer will stop. Say, “Thank you!” and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वणर्मालाका मात्रा सहितका अक्षरहरू राखिएका छन् । कृपया तपाईले जानेसम्म यी मात्रा सहितका अक्षरहरु हेरेर औंला हिज्जेमा संकेत गर्नुपर्नेछ ।

["का" सङ्केत गर्नुहोस्] **उदाहरणको लागि, यो "क" अक्षरमा आकार (ा) लागेको "का" अक्षर हो भनी औंला हिज्जेमा संकेत गर्नुहोस् ।**

["घि" औंला हिज्जेमा सङ्केत] **गर्न लगाउनुहोस्**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "घ" अक्षरमा इकार (ि) लागेको "घि" अक्षर हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "घ" अक्षरमा इकार (ि) लागेको रघिर अक्षर हो ।**

["हु" औंला हिज्जेमा सङ्केत] **गर्न एक पटक फेरि प्रयास गर्न लगाउनुहोस् । यो कुन मात्रा सहितको अक्षर हो, औंला हिज्जेमा सङ्केत गर्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "हु" अक्षरमा उकार (ु) मात्रा लागेको रहुर अक्षर हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "हु" अक्षरमा उकार (ु) मात्रा लागेको रहुर अक्षर हो ।**

जब म सुरु गर्न भन्छु, तपाईले पढेर औंला हिज्जेमा संकेत गर्न सुरु गर्नुहोस् । प्रत्येक मात्रा सहितका अक्षरलाई देखाउँदै औंला हिज्जे गरेर देखाउनुहोस् ।

तपाईले सकेसम्म छिटो तर ध्यानपूर्वक हेरेर औंला हिज्जे संकेत गर्न सक्नुहुनेछ ।

यदि तपाईलाई थाहा नभएको कुनै मात्रा लागेको अक्षर आएमा तपाई अर्को मात्रा लागेको अक्षर औंला हिज्जेमा संकेत गर्न सक्नुहुनेछ । हुन्छ ? ल अब तपाईले संकेत गर्न सुरु गर्नुहोस् ।

Examples का घि हु

1	*2*	*3*	*4*	*5*	*6*	
ले	रा	कि	मु	नो	सी	*6*
सं	तै	बौ	दि	पू	या	*12*
चै	जी	गो	टु	खू	छे	*18*
धे	हँ	वा	भौ	फो	थि	*24*
शु	ठै	ही	ढं	झौ	घू	*30*
जो	रै	नु	ची	डे	षा	*36*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 4. Familiar Word Reading

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word. Fingerspelling is NOT allowed.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 5 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 words (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वणर्मालाका शब्दहरू राखिएका छन् । कृपया तपाईले जानेसम्म यी शब्दहरू हेरेर संकेत गर्नु पर्नेछ ।

["माला" शब्द सङ्केत गर्नुहोस्] **उदाहरणको लागि, यो माला शब्द हो भनी नेपाली सांकेतिक भाषामा बताउनुहोस् ।**

["खरायो" शब्द सङ्केत] **गर्न लगाउनुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "खरायो" शब्दको संकेत हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "खरायो" शब्दको संकेत हो ।**

[अन्त्यमा "बुबा" शब्द देखाएर सङ्केत] **गर्न लगाउनुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "बुबा" शब्दको संकेत हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "बुबा" शब्दको संकेत हो ।**

जब म सुरु गर्न भन्छु, तपाईले शब्दहरु हरेर नेपाली सांकेतिक भाषामा संकेत गर्न सुरु गर्नुहोस् ।

तपाईले सकेसम्म छिटो ध्यानपूर्वक हेरेर संकेत गर्न सक्नुहुनेछ ।

यदि तपाईलाई थाहा नभएको कुनै शब्द पाएमा अर्को शब्द संकेत गर्नसक्नुहुनेछ । तपाईको औंला पहिलो शब्दमा राख्नु त । हुन्छ ? ल अब संकेत गर्न सुरु गर्नुहोस् ।

Examples: माला खरायो बुबा

1	*2*	*3*	*4*	*5*	*6*	
आमा	धेरै	काम	पानी	घर	*कुचो*	*6*
ठूलो	डर	दुध	गाई	बाघ	*सानो*	*12*
मेरो	झोला	रोटी	मकै	केरा	*टोपी*	*18*
नङ	दौरा	दिदी	पूजा	कान	*स्याउ*	*24*
फूल	अंगुर	बिरालो	कुकुर	औंला	*गिलास*	*30*
हिमाल	पुतली	चम्चा	चन्द्रमा	बाख्रा	*त्रिशूल*	*36*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 5A. Oral Reading Fluency

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word. Fingerspelling is NOT allowed. The child should produce the sign in NSL that directly corresponds to the word in Nepali.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 10 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 8 words (the first two lines), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

1	2	3	4	
भाइ	स्कूल	गइरहेको	थियो	4
बाटोमा	ठूलो	कुकुर	आयो	8
कुकुरले	भाइलाई	खुट्टामा	टोक्यो	12
भाइ	रुँदै	घर	गयो	16
उसलाई	बुबाले	अस्पताल	लानुभयो	20
डाक्टरले	औषधी	दिनुभयो	बुबा	24
र	भाइ	घर	फर्के	28

Autostop Yes, 8 words **Time Allowed** 5 minutes

Task 5B. Reading Comprehension

Enumerator Help

Do not remove the story after the child finishes reading it.

Ask the child all the questions on the screen. The child is allowed to look back at the story to answer a question.

Repeat a question once if a student does not respond after 15 seconds or asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as “incorrect” and move on to the next question.

If the student does not respond, mark the item as “no response.” If the student says they do not know the answer, mark the item as “incorrect.” If a student responds with an answer similar to one provided on the tablet, mark the item as “correct.”

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईलाई तपाईले भर्खर संकेत गरेको कथाबाट केही प्रश्नहरू सोध्न जाँदैछु ।

ती प्रश्नहरूको सकेसम्म प्रष्टसँग नेपाली सांकेतिक भाषामा उत्तर दिने प्रयास गर्नुहोस् ।

#	*Text*	*Word Count*	*Question*	*Answer*
1	भाइ स्कूल गइरहेको थियो ।	4	भाइ कहाँ गइरहेको थियो ?	[स्कूल]
2	बाटोमा ठूलो कुकुर आयो ।	8	बाटोमा के आयो ?	[कुकुर]
3	कुकुरले भाइलाई खुट्टामा टोक्यो ।	12	कुकुरले कसलाई टोक्यो ?	[भाइलाई]
4	भाइ रुँदै घर गयो । उसलाई बुबाले अस्पताल लानुभयो ।	20	बुबाले भाइलाई कहाँ लानुभयो ?	[अस्पताल]
5	डाक्टरले औषधी दिनुभयो ।बुबा र भाइ घर फर्के ।	28	डाक्टरले किन औषधी दिनुभयो ?	[कुकुरले टोकेर / घाउ भएर / घाउ निको पार्न]

प्रारम्भिक तह पठन सिप मापन

(EGRA)

सुनाइ सम्बन्धि अपाङ्गता भएका विद्यार्थीहरू

विद्यार्थी प्रति

मार्च २०२३

उपकार्य २. अक्षर पहिचान

२.१ स्वर वर्ण

उदाहरणः अ ग न

ई	उ	अ	इ	ए	आ
ओ	औ	अं	ऋ	ऊ	ऐ
अः					

म	ल	स	क	न	र
य	द	ह	प	ब	त
छ	च	ख	ट	ज	ग
भ	फ	ड	व	थ	ध
श	ठ	घ	ढ	ङ	झ
त्र	ण	ष	क्ष	ञ	ज्ञ

उपकार्य ३. मात्रा लागेको अक्षर पहिचान

उदाहरणः का घि हु

ले	रा	कि	मु	नौ	सी
सं	तै	बौ	दि	पू	या
चै	जी	गो	टु	खू	छे
धे	हँ	वा	भौ	फो	थि
शु	ठै	ही	ढं	झौ	घू
जो	रै	नु	ची	डे	षा

उपकार्य ४. परिचित शब्द पहिचान

उदाहरणः माला खरायो बुबा

आमा धेरै काम पानी घर कुचो

ठूलो डर दुध गाई बाघ सा

नो

मेरो	झोला	रोटी	मकै	केरा	टोपी
नङ	दौरा	दिदी	पूजा	कान	स्याउ

फूल	अंगुर	बिरा ल	कुकुर	औं ला	गि ला
हिमा ल	पुत ली	च म्चा	चन्द्र मा	बा खा	त्रिशू ल

भाइ स्कूल गइरहेको थियो ।

बाटोमा ठूलो कुकुर आयो ।

कुकुरले भाइलाई खुट्टामा टोक्यो ।

भाइ रुँदै घर गयो ।

डाक्टरले औषधी दिनुभयो ।

बुबा र भाइ घर फर्के ।

MASTER EGRA

ACR UnrestrICTed—Nepal World Education LEARN

Students who are blind/have low vision[33]

March 2023

A note about this document:

This document is the master version of the EGRA tool. It should be updated continuously as changes are made to the tool items and instructions. It should serve as the final documentation of the EGRA tool. The final paper and Tangerine versions of the EGRA, as well as the final stimuli, should reflect the content in this document.

The document provides templates for a variety of subtasks. These templates can be deleted or duplicated as needed based on the subtasks included in the EGRA.

[33] Students that were identified as either blind or having low vision received stimuli that included both embossed braille and print. The stimuli had printed letters/words below the embossed braille. Kokila font (Unicode) was used for the printed letters/words using the following font sizes: 50 for letter identification, 48 for matra and word identification, and 45 for reading passages.

Assent

Enumerator Help

<u>सामान्य निर्देशनहरूः</u>

सबैभन्दा पहिले विद्यार्थीसँग छोटो कुराकानी गरी रमाइलो र सहज वातावरण बनाउनुहोस् । (उदाहरणको लागि तल दिइएका शीर्षकहरू हेर्नुहोस् ।) यो प्रश्नावलीलाई विद्यार्थीले परीक्षाको रूपमा नलिई एउटा खेलको रूपमा रमाइलोको लागि लिन आवश्यक हुन्छ । यही समयमा बालबालिकालाई कसरी कुराकानी गर्दा बढी सहज हुन्छ भन्ने कुरामा ध्यान दिनुहोला । बाकसमा दिइएका खण्डहरू आफ्नो लागि मात्रै विस्तारै पढ्नुहोला र विद्यार्थीलाई बुझ्ने भाषामा मिलाएर भन्नुहोला ।

मेरो नाम __ हो । म __ मा बस्छु । म तपाईलाई मेरो बारेमा केही कुरा भन्न चाहन्छु ।(कार्यान्वयनकर्ताले आफ्नो उमेर, बच्चाहरूको सङ्ख्या, मनपर्ने खेल, रेडियो कार्यक्रम आदिको बारेमा बताउनुहोस् ।)

(१) **तपाईलाई विद्यालय नआएको बेला के गर्न मन पर्छ?** (प्रतिक्रियाको लागि पर्खनुहोला । यदि विद्यार्थीले उत्तर दिन इच्छा नगरेमा प्रश्न नं. २ सोध्नुहोला । तर यदि उनीहरूले सहज रूपमा उत्तर दिने देखिएमा मौखिक सहमतिमा अगाडि बढाउनुहोला ।)

(२) **तपाईलाई कस्ता खेलहरू खेल्न मनपर्छ ?**

(३) **तपाईलाई मनपर्ने खानेकुरा के हो ?**

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

हामीहरू बालबालिकाले कसरी पठन सिप सिक्दछन् भनी बुझ्न कोशिश गरिरहेका छौं । तपाईलाई यो कार्यमा छनौट गरिएको छ ।

यस कार्यमा हामीलाई तपाईको सहयोग चाहिन्छ । यदि तपाईलाई यस कार्यमा भाग लिन मन नलागेमा मलाई भन्न सक्नुहुनेछ ।

हामी एउटा पठन खेल खेल्न गइरहेका छौं । म तपाईलाई केही अक्षरहरू, शब्दहरू र एउटा छोटो कथा पढ्न लगाउनेछु र सुनाउनेछु ।

यो ट्याब्लेट प्रयोग गरेर, म तपाईंलाई पढ्न कति समय लाग्छ हेर्नेछु ।

यो परीक्षा होइन र यसले तपाईको विद्यालयको पढाइलाई कुनै असर गर्ने छैन ।

म तपाईको परिवारको बारेमा केही प्रश्नहरू पनि सोध्नेछु, जस्तैः तपाईको परिवारले घरमा बोल्ने भाषा र परिवारमा भएका केही सामानहरू आदि ।

यदि तपाई चाहानु हुन्न भने सहभागी नहुन सक्नुहुनेछ । हामीले सुरु गरेपछि पनि तपाईले प्रश्नको उत्तर दिन नचाहे पनि फरक पर्ने छैन ।

तपाईसँग कुनै प्रश्नहरू छन् ?

के तपाई सुरु गर्न तयार हुनुहुन्छ ?

Task 1. Listening Comprehension

Enumerator Help

Read the directions to the child. This is NOT a timed subtask. Read the entire passage aloud to the child TWO TIMES. Read slowly (about 1 word per second).

Ask all of the questions. Do not allow the child to look at the passage or the questions.

Repeat a question one time if the student does not respond after 10 seconds or if the student asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as "incorrect" and move on to the next question.

A child can respond in any language.

If the student does not respond, mark the item as "no response." If the student says they do not know the answer, mark the item as "incorrect." If a student responds with an answer similar to one provided on the tablet, mark the item as "correct."

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईलाई एउटा छोटो कथा पढेर सुँनाउछु। त्यसपछि तपाईलाई म केही प्रश्नहरू सोध्छु । कृपया ध्यानपूर्वक सुन्नुहोस् र सकेसम्म राम्रोसँग उत्तर दिनुहोस् ।

खरायो जङ्गल गयो । बाटोमा ठूलो पानी पऱ्यो । खरायो डरायो । ऊ दौडेर गुफाभित्र पस्यो । खरायो पानीबाट बच्यो । ऊ धेरै खुशी भयो ।

#	*Question*	Answer
1	खरायो कहाँ गयो ?	[जङ्गल]
2	पानीदेखि डराएर खरायो कहाँ पस्यो ?	[गुफाभित्र]
3	खरायो केबाट बच्यो ?	[पानीबाट]

Task 2. Letter Name Identification (Vowel and Consonant)

Enumerator Help

Show the child the sheet of letters as you read the instructions.

Start the timer when the child reads the first letter.

Follow along on your tablet and mark any incorrect letters by touching that letter on the screen—it will turn blue. If you make a mistake and mark a letter incorrect, you can correct the mistake by touching the letter again. It will turn white again.

Stay quiet, except if the child stops on a letter for 5 seconds. Then point to the next letter and say, "Please go on." Mark the skipped letter as incorrect.

If the child provides the letter name rather than the sound, say: "Please tell me the SOUND of the letter." Give this prompt only once during the exercise.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final letter read by touching it. The final letter read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last letter. The last letter will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 letters (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वर्णमालाका अक्षरहरू राखिएका छन् । तपाईले जानेसम्म यी अक्षरहरू पढ्नुहोस् ।

["अ" वर्णमा स्पश गराउनुहोस्] **उदाहरणको लागि, यो /अ/ अक्षर ध्वनि हो**

["ग" वर्णमा स्पश गराउनुहोस्] **अब यो कुन अक्षर ध्वनि हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो /ग/ अक्षर ध्वनि हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो /ग/ अक्षर ध्वनि हो ।**

["न" वर्णमा स्पश गराउनुहोस] **एक पटक फेरि प्रयास गर्नुहोस् । यो कुन अक्षर ध्वनि हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो /न/ अक्षर ध्वनि हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो /न/ अक्षर ध्वनि हो ।**

जब म "सुरु" भन्छु, तपाईले पढ्न सुरु गर्नुहोस् [विद्यार्थीको औंला पहिलो अक्षरमा लगेर राखिदिनुहोस्] । **प्रत्येक अक्षरलाई स्पश गर्दै त्यो अक्षर ध्वनि उच्चारण गर्नुहोस् ।**

तपाईले सकेसम्म चाँडो तर ध्यान पूर्वक पढ्न सक्नुहुन्छ ।

यदि तपाईलाई थाहा नभएको कुनै अक्षर आएमा तपाई अर्को अक्षर पढ्न सक्नुहुन्छ । हुन्छ ? ल अब पढ्न सुरु गर्नुहोस् ।

Examples अ ग न

1	2	3	4	5	6	
ई	उ	अ	इ	ए	आ	6
ओ	औ	अं	ऋ	ऊ	ऐ	12
अः						18

म	ल	स	क	न	र	6
य	द	ह	प	ब	त	12
छ	च	ख	ट	ज	ग	18
भ	फ	ड	व	थ	ध	24
श	ठ	घ	ढ	ङ	झ	30
त्र	ण	ष	क्ष	ञ	ज्ञ	36

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 3. Letter Matra Identification

Enumerator Help

Show the child the sheet of matras as you read the instructions.

Start the timer when the child reads the first matra.

Follow along on your tablet and mark any incorrect matras by touching that letter on the screen—it will turn blue. If you make a mistake and mark a matra incorrect, you can correct the mistake by touching the matra again. It will turn white again.

Stay quiet, except if the child stops on a matra for 5 seconds. Then point to the next matra and say, “Please go on.” Mark the skipped matra as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final matra read by touching it. The final matra read will be outlined in orange. Then press “Next.”

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last matra. The last matra will be automatically outlined in orange. Then press “Next.”

Early stop rule: If the child does not provide a single correct response for the first 6 matras (the first line), the screen will flash red, and the timer will stop. Say, “Thank you!” and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वर्णमालाका मात्रा ध्वनिहरू राखिएका छन् । कृपया तपाईले जानेसम्म यी मात्राहरू पढ्नुपर्नेछ ।

["का" मात्रामा स्पश गराउनुहोस्] **उदाहरणको लागि, या /का/ मात्रा ध्वनि हो ।**

["घि" मात्रामा स्पश गराउनुहोस्] **अब यो कुन मात्रा ध्वनि हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो /घि/ मात्रा ध्वनि हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो /घि/ मात्रा ध्वनि हो ।**

["हु" मात्रामा स्पश गराउनुहोस्] **एक पटक फेरि प्रयास गर्नुहोस । यो कुन मात्रा ध्वनि हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो /हु/ मात्रा ध्वनि हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो /हु/ मात्रा ध्वनि हो ।**

जब म "सुरु" भन्छु, तपाईले पढ्न सुरु गर्नुहोस् [विद्यार्थीको औंला पहिलो अक्षर मात्रामा लगेर राखिदिनुहोस्] । **प्रत्येक मात्रालाई स्पश गर्दै त्यो मात्रालाई उच्चारण गर्नुहोस् ।**

तपाईले सकेसम्म चाँडो तर ध्यानपूर्वक पढ्न सक्नुहुन्छ ।

यदि तपाईलाई थाहा नभएको कुनै मात्रा भेटिएमा अर्को मात्रा पढ्न सक्नुहुन्छ । हुन्छ ? ल अब पढ्न सुरु गर्नुहोस् ।

Examples का घि ह

1	2	3	4	5	6	
ले	रा	कि	मु	नो	सी	6
सं	तै	बौ	दि	पू	या	12
चै	जी	गो	टु	खू	छे	18
धे	हँ	वा	भौ	फो	थि	24
शु	ठै	ही	ढं	झौ	घू	30
जो	रै	नु	ची	डे	षा	36

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 4. Nonword Reading

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 5 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 words (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा केहि निर्रथक शब्दहरू राखिएका छन् । यी शब्दहरुको कुनै पनि अर्थ हुदैनन् । कृपया तपाईले जानेसम्म यी शब्दहरू पढ्नुहोस् ।

[" शाखिनै " शब्दमा स्पश गराउनुहोस्] **उदाहरणको लागि, यो "शाखिनै" शब्द हो ।**

[" छद्कु " शब्दमा स्पश गराउनुहोस्] **अब यो शब्द उच्चारण गर्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो " छद्कु " शब्द हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो " छद्कु " हो ।**

[“तली” शब्दमा स्पश गराउनुहोस्] **एक पटक फेरि प्रयास गर्नुहोस् । यो कुन शब्द हो उच्चारण गर्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो “ तली ” शब्द हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो “ तली “ शब्द हो ।**

जब म “सुरु” भन्छु, तपाई पढ्न सुरु गर्नुहोस् [विद्यार्थीको औंला पहिलो शब्दमा लगेर राखिदिनुहोस्] । **प्रत्येक शब्दलाई स्पश गर्नुहोस् र त्यो शब्द उच्चारण गर्नुहोस् ।**

तपाईले सकेसम्म चाँडो तर ध्यानपूर्वक पढ्न सक्नुहुन्छ ।

यदि तपाईलाई थाहा नभएको कुनै शब्द आएमा अर्को शब्द पढ्न सक्नुहुन्छ । हुन्छ ? ल अब पढ्न सुरु गर्नुहोस् ।

Examples: शाखिनै छदकु तली

1	*2*	*3*	*4*	*5*	*6*	
लफे	जाऔर	ज्ञाप्रा	ऐकुलो	जान्पु	*होनाका*	*6*
नारझ	लवोत	वातावे	पाथो	सम्पला	*ताछा*	*12*
अंका	तनाखे	वनाज	थाफि	गाङ्चा	*कमृ*	*18*
रेधै	लफौ	खबरा	लिभो	टोछौ	*गृम*	*24*
गोग्रा	पाल्का	रेलिजु	फेना	त्रचि	*नोकी*	*30*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 5A. Oral Reading Fluency

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 10 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 8 words (the first two lines), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

1	2	3	4	
भाइ	स्कूल	गइरहेको	थियो	4
बाटोमा	ठूलो	कुकुर	आयो	8
कुकुरले	भाइलाई	खुट्टामा	टोक्यो	12
भाइ	रुँदै	घर	गयो	16
उसलाई	बुबाले	अस्पताल	लानुभयो	20
डाक्टरले	औषधी	दिनुभयो	बुबा	24
र	भाइ	घर	फर्के	28

Autostop Yes, 8 words **Time Allowed** 5 minutes

Task 5B. Reading Comprehension

Enumerator Help

Do not remove the story after the child finishes reading it.

Ask the child all the questions on the screen. The child is allowed to look back at the story to answer a question.

Repeat a question once if a student does not respond after 15 seconds or asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as “incorrect” and move on to the next question.

A child can respond in any language.

If the student does not respond, mark the item as “no response.” If the student says they do not know the answer, mark the item as “incorrect.” If a student responds with an answer similar to one provided on the tablet, mark the item as “correct.”

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईले भर्खर पढेको कथाबाट केही प्रश्नहरू सोध्न जाँदैछु । ती प्रश्नहरूको उत्तर सकेसम्म प्रष्ट रुपमा दिने प्रयास गर्नुहोस् ।

#	*Text*	*Word Count*	*Question*	*Answer*
1	भाइ स्कूल गइरहेको थियो ।	4	भाइ कहाँ गइरहेको थियो ?	[स्कूल]
2	बाटोमा ठूलो कुकुर आयो ।	8	बाटोमा के आयो ?	[कुकुर]
3	कुकुरले भाइलाई खुट्टामा टोक्यो ।	12	कुकुरले कसलाई टोक्यो ?	[भाइलाई]
4	भाइ रुँदै घर गयो । उसलाई बुबाले अस्पताल लानुभयो ।	20	बुबाले भाइलाई कहाँ लानुभयो ?	[अस्पताल]
5	डाक्टरले औषधी दिनुभयो । बुबा र भाइ घर फर्के ।	28	डाक्टरले किन औषधी दिनुभयो ?	[कुकुरले टोकेर / घाउ भएर / घाउ निको पार्न]

प्रारम्भिक तह पठन सिप मापन

(EGRA)

दृष्टि सम्बन्धि अपाङ्गता भएका विद्यार्थीहरू

विद्यार्थी प्रति

मार्च २०२३

उपकार्य २. अक्षर पहिचान

२.१ स्वर वर्ण

उदाहरणः **अ ग न**

ई उ अ इ ए आ

ओ औ अं ऋ ऊ ऐ

अः

२.२ ब्यञ्जन वर्ण

म	ल	स	क	न	र
य	द	ह	प	ब	त

छ	च	ख	ट	ज	ग
भ	फ	ड	व	थ	ध
श	ठ	घ	ढ	ङ	झ
त्र	ण	ष	क्ष	ञ	ज्ञ

उपकार्य ३. मात्रा लागेको अक्षर पहिचान

उदाहरणः का घि हु

ले	रा	कि	मु	नौ	सी
सं	तै	बौ	दि	पू	या
चै	जी	गो	टु	खू	छे

धे	हँ	वा	भौ	फो	थि
शु	ठै	ही	ढं	झौ	घू
जो	रै	नु	ची	डे	षा

उपकार्य ४. निरर्थक शब्द पहिचान

उदाहरणः शाखिनै छदकु तली

लफे	जाऔर	ज्ञाप्रा	ऐकुलो	जान्पु होना का

नार	लवो	वाता	पाथो	सम्प	ताछा
झ	त	वे	ला		
अंका	तना	वना	था	गाङ्चा	कमृ
	खे	ज	फि		

रेधै	लफौ	खबरा	लिभो	टोछौ	गृम
गोग्रा	पाल्का	रेलिजु	फेना	त्रचि	नोकी

भाइ स्कूल गइरहेको थियो ।

बाटोमा ठूलो कुकुर आयो ।

कुकुरले भाइलाई खुट्टामा टोक्यो ।

भाइ रुँदै घर गयो ।

डाक्टरले औषधी दिनुभयो ।

बुबा र भाइ घर फर्के ।

SCHOOL-TO-SCHOOL INTERNATIONAL

MASTER EGRA

ACR UnrestrICTed—Nepal World Education LEARN

Struggling learners and students with cognitive disabilities[35]

March 2023

A note about this document:

This document is the master version of the EGRA tool. It should be updated continuously as changes are made to the tool items and instructions. It should serve as the final documentation of the EGRA tool. The final paper and Tangerine versions of the EGRA, as well as the final stimuli, should reflect the content in this document.

The document provides templates for a variety of subtasks. These templates can be deleted or duplicated as needed based on the subtasks included in the EGRA.

[35] Kokila font (Unicode) was used in the student stimuli using the following font sizes: 50 for letter identification, 48 for matra and word identification, and 45 for reading passages.

Assent

Enumerator Help

<u>सामान्य निर्देशनहरूः</u>

सबैभन्दा पहिले विद्यार्थीसँग छोटो कुराकानी गरी रमाइलो र सहज वातावरण बनाउनुहोस् । (उदाहरणको लागि तल दिइएका शीर्षकहरू हेर्नुहोस् ।) यो प्रश्नावलीलाई विद्यार्थीले परीक्षाको रूपमा नलिई एउटा खेलको रूपमा रमाइलोको लागि लिन आवश्यक हुन्छ । यही समयमा बालबालिकालाई कसरी कुराकानी गर्दा बढी सहज हुन्छ भन्ने कुरामा ध्यान दिनुहोला । बाकसमा दिइएका खण्डहरू आफ्नो लागि मात्रै विस्तारै पढ्नुहोला र विद्यार्थीलाई बुझ्ने भाषामा मिलाएर भन्नुहोला ।

मेरो नाम __ हो । म __ मा बस्छु । म तपाईलाई मेरो बारेमा केही कुरा भन्न चाहन्छु ।(कार्यान्वयनकर्ताले आफ्नो उमेर, बच्चाहरूको सङ्ख्या, मनपर्ने खेल, रेडियो कार्यक्रम आदिको बारेमा बताउनुहोस् ।)

(१) **तपाईलाई विद्यालय नआएको बेला के गर्न मन पर्छ?** (प्रतिक्रियाको लागि पर्खनुहोला । यदि विद्यार्थीले उत्तर दिन इच्छा नगरेमा प्रश्न नं. २ सोध्नुहोला । तर यदि उनीहरूले सहज रूपमा उत्तर दिने देखिएमा मौखिक सहमतिमा अगाडि बढाउनुहोला ।)

(२) **तपाईलाई कस्ता खेलहरू खेल्न मनपर्छ ?**

(३) **तपाईलाई मनपर्ने खानेकुरा के हो ?**

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

हामीहरू बालबालिकाले कसरी पठन सिप सिक्दछन् भनी बुझ्न कोशिश गरिरहेका छौं । तपाईलाई यो कार्यमा छनौट गरिएको छ ।

यस कार्यमा हामीलाई तपाईको सहयोग चाहिन्छ । यदि तपाईलाई यस कार्यमा भाग लिन मन नलागेमा मलाई भन्न सक्नुहुनेछ ।

हामी एउटा पठन खेल खेल्न गइरहेका छौं । म तपाईलाई केही अक्षरहरू, शब्दहरू र एउटा छोटो कथा पढ्न लगाउनेछु र सुनाउनेछु ।

यो ट्याब्लेट प्रयोग गरेर, म तपाईंलाई पढ्न कति समय लाग्छ हेर्नेछु ।

यो परीक्षा होइन र यसले तपाईको विद्यालयको पढाइलाई कुनै असर गर्ने छैन ।

म तपाईको परिवारको बारेमा केही प्रश्नहरू पनि सोध्नेछु, जस्तैः तपाईको परिवारले घरमा बोल्ने भाषा र परिवारमा भएका केही सामानहरू आदि ।

यदि तपाई चाहानु हुन्न भने सहभागी नहुन सक्नुहुनेछ । हामीले सुरु गरेपछि पनि तपाईले प्रश्नको उत्तर दिन नचाहे पनि फरक पर्ने छैन ।

तपाईसँग कुनै प्रश्नहरू छन् ?

के तपाई सुरु गर्न तयार हुनुहुन्छ ?

Task 1. Listening Comprehension

Enumerator Help

Read the directions to the child. This is NOT a timed subtask. Read the entire passage aloud to the child TWO TIMES. Read slowly (about 1 word per second).

Ask all of the questions. Do not allow the child to look at the passage or the questions.

Repeat a question one time if the student does not respond after 15 seconds or if the student asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as "incorrect" and move on to the next question.

A child can respond in any language.

If the student does not respond, mark the item as "no response." If the student says they do not know the answer, mark the item as "incorrect." If a student responds with an answer similar to one provided on the tablet, mark the item as "correct.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईलाई एउटा छोटो कथा पढेर सुनाउँछु । त्यसपछि तपाईलाई म केही प्रश्नहरू सोध्छु । कृपया ध्यानपूर्वक सुन्नुहोस् र सकेसम्म राम्रोसँग उत्तर दिनुहोस् ।

खरायो जङ्गल गयो । बाटोमा ठूलो पानी पऱ्यो । खरायो डरायो । ऊ दौडेर गुफाभित्र पस्यो । खरायो पानीबाट बच्यो । ऊ धेरै खुशी भयो ।

#	*Question*	Answer
1	खरायो कहाँ गयो ?	[जङ्गल]
2	पानीदेखि डराएर खरायो कहाँ पस्यो ?	[गुफाभित्र]
3	खरायो केबाट बच्यो ?	[पानीबाट]

Task 2. Letter Name Identification (Vowel and Consonant)

Enumerator Help

Show the child the sheet of letters as you read the instructions.

Start the timer when the child reads the first letter.

Follow along on your tablet and mark any incorrect letters by touching that letter on the screen—it will turn blue. If you make a mistake and mark a letter incorrect, you can correct the mistake by touching the letter again. It will turn white again.

Stay quiet, except if the child stops on a letter for 5 seconds. Then point to the next letter and say, "Please go on." Mark the skipped letter as incorrect.

If the child provides the letter name rather than the sound, say: "Please tell me the SOUND of the letter." Give this prompt only once during the exercise.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final letter read by touching it. The final letter read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last letter. The last letter will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 letters (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपाली वणर्मालाका अक्षरहरू राखिएका छन् । तपाईले जानेसम्म यी अक्षरहरू पढ्नुहोस् ।

["अ" वर्णलाई औंलाले देखाउनुहोस्] **उदाहरणको लागि, यो "अ" हो**

["ग" वणर्लाई औंलाले देखाउनुहोस्] **अब यो कुन अक्षर हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "ग" अक्षर हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यदि विद्यार्थीले गलत भनेमा, यो "ग" अक्षर हो भनिदिनुहोस् ।**

["न" वणर्लाई औंलाले देखाउनुहोस्] **एक पटक फेरि प्रयास गरौं । यो कुन अक्षर हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "न" अक्षर हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यदि विद्यार्थीले गलत भनेमा, यो "न" अक्षर हो, भनिदिनुहोस् ।**

जब म "सुरु" भन्छु, तपाईले पढ्न सुरु गर्नुहोस् [चाहेको अक्षरमात्र देखिने गरी प्वाल भएको स्केल (टाइपोस्कोप) राख्दै सो अक्षर उच्चारण गर्न भन्नुहोस्]। **क्रमशः स्केल सार्दै जाने र अन्य अक्षर उच्चारण गर्न भन्ने ।**

तपाईले सकेसम्म छिटो तर ध्यानपूर्वक पढ्नुहोस् ।

तपाईलाई जुन जुन अक्षर पढ्न आउछ, तिनै अक्षरहरु मात्र पढ्नुहोस्, हुन्छ ? ल अब पढ्न सुरु गरौं ।

Examples अ ग न

खडघझ1	*2*	*3*	*4*	*5*	*6*	
ई	उ	अ	इ	ए	आ	*6*
ओ	औ	अं	ऋ	ऊ	ऐ	*12*
अः						*18*

1	*2*	*3*	*4*	*5*	*6*	
म	ल	स	क	न	र	*6*
य	द	ह	प	ब	त	*12*
छ	च	ख	ट	ज	ग	*18*
भ	फ	ड	व	थ	ध	*24*
श	ठ	घ	ढ	ङ	झ	*30*
त्र	ण	ष	क्ष	ञ	ज्ञ	*36*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 3. Letter Matra Identification

Enumerator Help

Show the child the sheet of matras as you read the instructions.

Start the timer when the child reads the first matra.

Follow along on your tablet and mark any incorrect matras by touching that letter on the screen—it will turn blue. If you make a mistake and mark a matra incorrect, you can correct the mistake by touching the matra again. It will turn white again.

Stay quiet, except if the child stops on a matra for 5 seconds. Then point to the next matra and say, "Please go on." Mark the skipped matra as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final matra read by touching it. The final matra read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last matra. The last matra will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 matras (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा नेपालीको "मात्रा" हरू राखिएका छन् । यी मात्राहरू तपाइँले पढ्नु पर्नेछ ।

["का" मात्रालाई टाइपोस्कोपमा राखेर देखाउनुहोस्] **उदाहरणको लागि, यो "का" मात्रा हो**

["घि" मात्रालाई टाइपोस्कोपमा राखेर देखाउनुहोस्] **अब यो कुन मात्रा हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "घि" मात्रा हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "घि" मात्रा हो ।**

["हु" मात्रालाई टाइपोस्कोपमा राखेर देखाउनुहोस् ।] **यो कुन मात्रा हो भन्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "हु" मात्रा हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "हु" मात्रा हो ।**

जब म "सुरु" भन्छु, तपाईले पढ्न सुरु गर्नुहोस् [टाइपोस्कोपलाई पहिलो अक्षर मात्रामा लगेर राखिदिनुहोस्] **। प्रत्येक मात्रालाई टाइपोस्कोपमा राखेर देखाउदै पढ्नुहोस् ।**

तपाईले सकेसम्म छिटो तर ध्यानपूर्वक पढ्न सक्नुहुन्छ ।

यदि तपाईलाई थाहा नभएको कुनै मात्रा भेटिएमा तपाई अर्को मात्रा पढ्न सक्नुहुन्छ । हुन्छ ? ल अब पढ्न सुरु गरौँ ।

Examples का घि **ह**

1	*2*	*3*	*4*	*5*	*6*	
ले	रा	कि	मु	नो	सी	*6*
सं	तै	बौ	दि	पू	या	*12*
चै	जी	गो	टु	खू	छे	*18*
धे	हँ	वा	भौ	फो	थि	*24*
शु	ठै	ही	ढं	झौ	घू	*30*
जो	रै	नु	ची	डे	षा	*36*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 4. Familiar Word Reading

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 5 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 6 words (the first line), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यो पानामा शब्दहरू राखिएका छन् । तपाईले यी शब्दहरू पढ्नुपर्नेछ ।

["माला" शब्दलाई टाइपोस्कोपमा राखेर देखाउनुहोस्] **उदाहरणको लागि, यो "माला" शब्द हो ।**

["खरायो" शब्दलाई टाइपोस्कोपमा राखेर देखाउनुहोस्] **अब यो कुन शब्द हो पढ्नुहोस्।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "खरायो" शब्द हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "खरायो" हो ।**

["बुबा" शब्दलाई टाइपोस्कोपमा राखेर देखाउनुहोस्] **एक पटक फेरि प्रयास गर्नुहोस् । यो कुन शब्द हो पढ्नुहोस् ।**

[यदि बच्चा सही छ भने, भन्नुहोस्:] **ठिक, यो "बुबा" शब्द हो ।**

[यदि बच्चा गलत छ भने, भन्नुहोस्:] **यो "बुबा" शब्द हो ।**

जब म "सुरु" भन्छु, तपाईले पढ्न सुरु गर्नुहोस [टाइपोस्कोपलाई पहिलो शब्दमा लगेर राखिदिनुहोस् ।] **प्रत्येक शब्दलाई देखाउदैं शब्द पढ्न लगाउनुहोस् ।**

तपाईले सकेसम्म छिटो तर ध्यानपूर्वक पढ्न सक्नुहुनेछ ।

यदि तपाईले नजानेमा अर्को शब्द पढ्न सक्नुहुनेछ । हुन्छ ? ल अब पढ्न सुरु गरौं ।

Examples: माला खरायो बुबा

1	*2*	*3*	*4*	*5*	*6*	
आमा	धेरै	काम	पानी	घर	*कुचो*	*6*
ठूलो	डर	दुध	गाई	बाघ	*सानो*	*12*
मेरो	झोला	रोटी	मकै	केरा	*टोपी*	*18*
नङ	दौरा	दिदी	पूजा	कान	*स्याउ*	*24*
फूल	अंगुर	बिरालो	कुकुर	औंला	*गिलास*	*30*
हिमाल	पुतली	चम्चा	चन्द्रमा	बाख्रा	*त्रिशूल*	*36*

Autostop Yes, 6 items **Time Allowed** 3 minutes

Task 5A. Oral Reading Fluency

Enumerator Help

Show the child the sheet of words as you read the instructions.

Start the timer when the child reads the first word.

Follow along on your tablet and mark any incorrect words by touching that letter on the screen—it will turn blue. If you make a mistake and mark a word incorrect, you can correct the mistake by touching the word again. It will turn white again.

Stay quiet, except if the child stops on a word for 10 seconds. Then point to the next word and say, "Please go on." Mark the skipped word as incorrect.

If the timer reaches 0 seconds before the student reads the last item, the screen will flash red, and the timer will stop. The subtask is over. Ask the child to stop. Mark the final word read by touching it. The final word read will be outlined in orange. Then press "Next."

If the child reads the last item before the timer reaches 0, stop the timer when the child reads the last word. The last word will be automatically outlined in orange. Then press "Next."

Early stop rule: If the child does not provide a single correct response for the first 8 words (the first two lines), the screen will flash red, and the timer will stop. Say, "Thank you!" and go on to the next subtask.

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

यहाँ एउटा सानो कथा छ । म तपाईलाई यो कथा पढ्न दिन्छु ।

तपाईले ठूलो स्वरमा ध्यानपूर्वक छिटो कथा पढ्नुहोस् है । तपाईले कथा पढिसकेपछि म तपाईलाई त्यही कथासँग सम्बन्धित केही प्रश्नहरू सोध्नेछु ।

जब म सुरु गर्न भन्छु त्यसपछि तपाई कथा पढ्न सुरु गर्नुहोस् है । यदि कथा पढ्दा तपाईले नजानेको कुनै शब्द आएमा तपाईले अर्को शब्द पढ्न सक्नुहुन्छ । [विद्यार्थीको औंला कथाको पहिलो शब्दमा राखिदिनुहोस् ।] **हुन्छ ? ल सुरु गरौं ।**

1	2	3	4	
भाइ	स्कूल	गइरहेको	थियो	4
बाटोमा	ठूलो	कुकुर	आयो	8
कुकुरले	भाइलाई	खुट्टामा	टोक्यो	12
भाइ	रुँदै	घर	गयो	16
उसलाई	बुबाले	अस्पताल	लानुभयो	20
डाक्टरले	औषधी	दिनुभयो	बुबा	24
र	भाइ	घर	फर्के	28

Autostop Yes, 8 words **Time Allowed** 5 minutes

Task 5B. Reading Comprehension

Enumerator Help

Do not remove the story after the child finishes reading it.

Ask the child all the questions on the screen. The child is allowed to look back at the story to answer a question.

Repeat a question once if a student does not respond after 15 seconds or asks you to repeat it. If the student responds incorrectly after the first time you ask the question, mark it as “incorrect” and move on to the next question.

A child can respond in any language.

If the student does not respond, mark the item as “no response.” If the student says they do not know the answer, mark the item as “incorrect.” If a student responds with an answer similar to one provided on the tablet, mark the item as “correct.”

Student Dialogue (use **bold** to indicate instructions that should be read aloud to student)

अब म तपाईले भर्खर पढेको कथाबाट केही प्रश्नहरू सोध्छु । ती प्रश्नहरूको उत्तर सकेसम्म प्रष्ट रुपमा दिने प्रयास गर्नुहोस् ।

#	Text	Word Count	Question	Answer
1	भाइ स्कूल गइरहेको थियो ।	4	भाइ कहाँ गइरहेको थियो ?	[स्कूल]
2	बाटोमा ठूलो कुकुर आयो ।	8	बाटोमा के आयो ?	[कुकुर]
3	कुकुरले भाइलाई खुट्टामा टोक्यो ।	12	कुकुरले कसलाई टोक्यो ?	[भाइलाई]
4	भाइ रुँदै घर गयो । उसलाई बुबाले अस्पताल लानुभयो ।	20	बुबाले भाइलाई कहाँ लानुभयो ?	[अस्पताल]
5	डाक्टरले औषधी दिनुभयो । बुबा र भाइ घर फर्के ।	28	डाक्टरले किन औषधी दिनुभयो ?	[कुकुरले टोकेर / घाउ भएर / घाउ निको पार्न]

प्रारम्भिक तह पठन सिप **मापन** (EGRA)

संज्ञानात्मक समस्या भएका

विद्यार्थीहरूका लागि

विद्यार्थी प्रति

मार्च २०२३

उपकार्य २. अक्षर पहिचान

२.१ स्वर वर्ण

उदाहरणः **अ ग न**

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अः

म	ल	स	क	न	र
य	द	ह	प	ब	त
छ	च	ख	ट	ज	ग
भ	फ	ड	व	थ	ध

श	ठ	घ	ढ	ङ	झ
त्र	ण	ष	क्ष	ञ	ज्ञ

उपकार्य ३. अक्षर मात्रा ध्वनी पहिचान

उदाहरणः **का** **घि** **हु**

ले	रा	कि	मु	नौ	सी
सं	तै	बौ	दि	पू	या
चै	जी	गो	टु	खू	छे

धे	हँ	वा	भौ	फो	थि
शु	ठै	ही	ढं	झौ	घू
जो	रै	नु	ची	डे	षा

उपकार्य ४. परिचित शब्द पहिचान

उदाहरणः **माला** **खरायो** **बुबा**

आमा	धेरै	काम	पानी	घर	कुचो
ठूलो	डर	दुध	गाई	बाघ	सानो
मेरो	झोला	रोटी	मकै	केरा	टोपी
नङ	दौरा	दिदी	पूजा	कान	स्याउ
फूल	अंगुर	बिरालो	कुकुर	औंला	गिलास

हिमाल पुतली चम्चा चन्द्रमा बाख्रा त्रिशूल

भाइ स्कूल गइरहेको थियो ।

बाटोमा ठूलो कुकुर आयो ।

कुकुरले भाइलाई खुट्टामा टोक्यो ।

भाइ रुँदै घर गयो ।

डाक्टरले औषधी दिनुभयो ।

बुबा र भाइ घर फर्के ।

Learner Survey

Question	Response
Language of enumeration गणना गरिएको भाषा	Bajjika बज्जिका
	Bhojpuri भोजपुरी
	Magar मगर
	Maithali मैथली
	Nepali नेपाली
	Nepali Sign Language नेपाली साङ्गेतिक भाषा
	Newari नेवारी
	Tamang तमाङ्ग
	Other: अन्यः
Sex of respondent अन्तर्वार्ता दिनेको लिङ्ग	Female महिला
	Male पुरुष
Would you like to participate? के तपाई भाग लिन चहानुहुन्छ?	Yes हो
	No होइन
Learner name/ID सिकारुको नाम/परिचय पत्र	

Question	Response
Disability type अपाङ्गताको प्रकार	Blind or low vision दृष्टिबिहिन वा न्युन दृष्टि भएका व्यक्ति
	Communication or speech disabilities or difficulties संवाद वा संचार सम्बन्धी अपाङ्गता वा कठिनाई
	Learning or intellectual disabilities or difficulties सिकाई वा बौद्धिक अपाङ्गता वा कठिनाई
	Physical or mobility disabilities or difficulties शारिरिक वा गतिशिलता सम्बन्धी अपाङ्गता वा कठिनाई
	Other disabilities or difficulties अन्य अपाङ्गता वा कठिनाई
Learner's age सिकारुको उमेर	
Learner's grade सिकारुको तह	Kinder बाल कक्षा
	G1 तह १
	G2 तह २
	G3 तह ३
	G4 तह ४
	G5 तह ५
	G6 तह ६

Question	Response
How long have you been going to this school? यो विद्यालयमा जान थाल्नु भएको कति भयो ?	Less than one year एक वर्ष भन्दा कम
	One year or more एक वर्ष वा बढी
	Not sure/Don't know निश्चित छैन / थाहा छैन
Do you live with your family or do you live in a hostel? तपाई आफ्नो परिवारसंग बस्नु हुन्छ कि छात्रावासमा बस्नु हुन्छ?	With family परिवारसँग
	In a hostel छात्रावासमा
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Outside of school, what language do you use most often? विद्यालय बाहिर तपाईले कुन भाषा धेरै जसो प्रयोग गर्नु हुन्छ?	Bajjika बज्जिका
	Bhojpuri भोजपुरी
	Magar मगर
	Maithali मैथली
	Nepali नेपाली
	Nepali Sign Language नेपाली साङ्गेतिक भाषा
	Newari नेवारी
	Tamang तमाङ्ग
	Other: अन्यः
Where did you first learn Nepali Sign Language?	At home/with family

Question	Response
तपाईले पहिलो पटक नेपाली साङ्केतिक भाषा कहाँ सिक्नु भयो?	घरमा/परिवारसँग
	At school विद्यालयमा
	Other अन्य
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Are any of your family members deaf? तपाईको परिवारमा कोहि बहिरा ब्यक्ति हुनुहुन्छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Which family members are deaf? तपाईको परिवारको कुन सदस्य बहिरा ब्यक्ति हुनुहुन्छ?	Father बुबा
	Mother आमा
	Siblings भाइबहिनीहरू
	Others अन्य
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Does anyone in your family know Nepali Sign Language? तपाईको परिवारमा कसैलाई नेपाली साङ्ककेतिक भाषा आउँछ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Where did you first learn to read braille?	At home/with family

Question	Response
तपाईले पहिलो पटक ब्रेल पढन कहाँ सिक्नु भयो?	घरमा/परिवारसँग
	At school विद्यालयमा
	Other अन्य
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Are any of your family members blind or have low vision?तपाईको परिवारमा कोहि दृष्टिविहिन वा न्युन दृष्टियुक्त ब्यक्ति हुनुहुन्छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Which family members are blind or have low vision? तपाईको परिवारको कुन सदस्य दृष्टिविहिन वा न्युन दृष्टियुक्त ब्यक्ति हुनुहुन्छ?	Father बुबा
	Mother आमा
	Siblings भाइबहिनीहरू
	Others अन्य
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Does anyone in your family know how to read braille? तपाईको परिवारमा कसैलाई ब्रेल पढन आउँछ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
	Yes

Question	Response
When you have homework, does someone at home/in your family help you with it? तपाईलाई गृहकार्य गर्न घरमा वा परिवारमा कसैले सहयोग गर्नु हुन्छ?	हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Who helps you with your homework? तपाईलाई गृहकार्य गर्न कसले सहयोग गर्नु हुन्छ?	Father बुबा
	Mother आमा
	Siblings भाइबहिनीहरू
	Others अन्य
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Does anyone in your family know how to read Nepali? तपाईको परिवारमा कसैलाई नेपाली पढन आँउछ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Who knows how to read Nepali? कस्लाई नेपाली पढन आँउछ?	Father बुबा
	Mother आमा
	Siblings भाइबहिनीहरू
	Others अन्य
	Don't know / no response

Question	Response
	थाहा छैन/कुनै प्रतिक्रिया छैन
Do you have any books at home/outside of school? तपाईसँग घरमा वा विद्याल्य बाहिर कुनै किताबहरू छन्?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you have any newspapers or magazines at home/outside of school? तपाईसँग घरमा वा विद्यालय बाहिर कुनै पत्रपत्रिका वा अखबार छन्?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you have a computer or tablet at home/outside of school? तपाईसँग घरमा वा विद्यालय बाहिर कम्प्युटर वा ट्याब्लेट छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How much do you use the computer or tablet at home/outside of school? तपाईले घरमा वा विद्यालय बाहिर कम्प्युटर वा ट्याब्लेटको कति प्रयोग गर्नुहुन्छ?	A lot धेरै
	A little थोरै
	Never कहिले पनि होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you use a computer or tablet at school? तपाईले विद्यालयमा कम्प्युटर वा ट्याब्लेट प्रयोग गर्नुहुन्छ?	Yes हो
	No होइन

Question	Response
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How much do you like using the computer or tablet? तपाईलाई कम्प्युटर वा ट्याब्लेट प्रयोग गर्न कतिको मन पर्छ?	A lot धेरै
	A little थोरै
	Never कहिले पनि होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you have a smart phone at home/outside of school? तपाईसँग घरमा वा विद्यालय बाहिर स्मार्टफोन छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How much do you use the smart phone at home/outside of school? तपाईले घरमा वा विद्यालय बाहिर स्मार्टफोन कति प्रयोग गर्नुहुन्छ?	A lot धेरै
	A little थोरै
	Never कहिले पनि होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you use a smart phone at school? तपाईले विद्यालयमा स्मार्टफोन प्रयोग गर्नुहुन्छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
How much do you like using the smart phone? तपाईंले स्मार्टफोन प्रयोग गर्न कति मन पर्छ?	A lot धेरै
	A little थोरै
	Never कहिले पनि होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
What kinds of technology and devices do you have in your classroom? Do you have…[enumerator read response options]. तपाईंको कक्षाकोठामा कस्ता प्रकारका प्रविधि र उपकरणहरू छन् ? के तपाईंसँग …… [गणकले प्रतिक्रियाका विकल्पहरू पढ्नुहोस्]	Applications एप्लिकेसनहरू
	Digital books/library डिजिटल पुस्तक/पुस्तकालय
	Disability focused materials अपाङ्गता केन्द्रित सामग्री
	E-lessons ई-पाठहरू
	Games खेलहरू
	Learning videos सिकाइ भिडियोहरू
	Parent resources अभिभावकका स्रोतहरू
	Sign language books सांकेतिक भाषाका पुस्तकहरू
	Laptop/Computer ल्यापटप/कम्प्यूटर
	Screen/Projector स्क्रिन/प्रोजेक्टर
	Microphone माइक्रोफोन
	Braille keyboards

Question	Response
	ब्रेल किबोर्डहरू
	DAISY players इभो डैस्त्री प्लेएर
	None of the above माथिको कुनै पनि छैन
In the past five days of school, which technology or devices have you used during lessons? [Enumerator note: Do not read answers aloud, ask learner to list options and check any that correspond to the response list] विद्यालयको विगत पाँच दिनमा, तपाइँले पढेको पाठमा कुन प्रविधि वा उपकरणहरू प्रयोग गर्नुभयो ? गणकको नोट: उत्तरहरू ठूलो स्वरले नपढ्नुहोस्, विध्यार्थीलाई विकल्पहरूको सूची बनाउन र सूचीमा मिल्दोजुल्दो प्रतिक्रिया भए नभएको जाँच गर्नुहोस्	Applications एप्लिकेसनहरू
	Digital books/library डिजिटल पुस्तक/पुस्तकालय
	Disability focused materials अपाङ्गता केन्द्रित सामग्री
	E-lessons ई-पाठहरू
	Games खेलहरू
	Learning videos सिकाइ भिडियोहरू
	Parent resources अभिभावकका स्रोतहरू
	Sign language books सांकेतिक भाषाका पुस्तकहरू
	Laptop/Computer ल्यापटप/कम्प्यूटर
	Screen/Projector स्क्रिन/प्रोजेक्टर
	Microphone माइक्रोफोन
	Braille keyboards ब्रेल किबोर्डहरू
	DAISY players इभो डैस्त्री प्लेएर

Question	Response
	None of the above माथिको कुनै पनि छैन
How often did you use any of the technology or devices during your lessons in the last five days? तपाईंले पछिल्लो पाँच दिनमा आफुले पढेको पाठमा, यी मध्ये कुनै पनि प्रविधि वा उपकरणहरू कति पटक प्रयोग गर्नुभयो ?	Daily दैनिक
	Three to Four times तीन चार पटक
	Once or twice एक वा दुई पटक
	Never कहिल्यै पनि छैन
	Don't know / no response थाहा छैन कुनै प्रतिक्रिया छैन
How much do you like using the technology and devices during lessons? तपाइँलाई पाठ पढ्ने समयमा प्रविधि र उपकरणहरू प्रयोग गर्न कत्तिको मनपर्छ?	A lot धेरै
	A little थोरै
	Not at all कति पनि हैन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How easy is it for you to use the technology and devices during lessons? तपाइँलाई पाठ पढ्ने समयमा प्रविधि र उपकरणहरू प्रयोग गर्न कत्तिको सजिलो छ ?	A lot धेरै
	A little थोरै
	Not at all कति पनि हैन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
Which of the following do you think would make the technology and devices in your lessons better? [Select all that apply] तलका मध्ये कुन कुराले तपाइँको पाठमा रहेका प्रविधि र उपकरणहरूलाई अझ राम्रो बनाउँछ जस्तो लाग्छ ? [लागू हुने सबै चयन गर्नुहोस्]	My teacher could allow me to use the technology and devices more often मेरो शिक्षकले मलाई धेरै पटक प्रविधि र उपकरणहरू प्रयोग गर्न अनुमति दिन सक्नुहुन्छ
	The technology and devices could be simpler to use प्रयोग गर्न सजिलो प्रविधि र उपकरणहरू
	The content (games, stories, activities) could be easier to understand बुझ्न सजिलो सामग्री (खेल, कथा, गतिविधिहरू)
	The content (games, stories, activities) could be more like my own life मेरो जिवन सँग मिल्ने सामग्री (खेल, कथा, गतिविधिहरू)
	Other अन्य
Those are all the questions I have. Thank you so much for sharing with me. Do you have any questions for me? मसँग भएका प्रश्नहरू यतिनै हुन। मसँग साझेदारी गर्नुभएकोमा धेरै धेरै धन्यवाद।। तपाईसँग मेरो लागी केही प्रश्नहरू छन्?	

Teacher Survey

Question	Response
Hello, my name is _____. I am working with School-to-School International, a non-governmental organization based in the United States, and World Education, who is running LEARN. We are conducting research to understand how LEARN impacted your teaching and your learners. For our research, we are speaking with different people participating in LEARN. You have been selected to participate in our research because of your experience with the project. We would like to ask you some questions about your background, your experience with digital technologies, your attitudes and beliefs about teaching, and your experience with the project. We expect the interview will last about thirty minutes. The results of our research will be used to help understand how LEARN is working and what changes resulted from it. Although you may not see any direct benefits from your participation in the survey, we hope that, by participating in our research, we can understand how LEARN affected the learning outcomes of children with disabilities in your community. Your participation is completely voluntary. There will be no negative consequences if you choose not to participate. If you choose to participate, you can choose not to answer certain questions or end the interview at any time. Your responses will be confidential, and the results of this research will only be used in ways that do not identify you or other participants. Please let us know if there is anything we discuss during our conversation that you would not like written down or reported. The anonymized data – meaning information without any personal data – from this research study may be used by other researchers with School-to-School International's approval. Do you have any questions? Please know that you can contact [PROJECT NAME] [POC NAME] at [PHONE NUMBER] or by e-mail at [EMAIL] if you have any questions. Do you consent to participate in the study?	

Question	Response
नमस्कार मेरो नाम _____हो। म संयुक्त राज्य अमेरिकामा रहेको गैर-सरकारी संस्था स्कूल-टू-स्कूल इन्टरनेशनल र LEARN परियोजना सन्चालन गर्ने विश्व शिक्षासँग काम गरिरहेको छु। LEARN परियोजनाले तपाइँको शिक्षण र तपाइँका विद्यार्थीहरूलाई कसरी प्रभाव पारेको छ भनेर बुझ्नको लागि हामीले अनुसन्धान सञ्चालन गरिरहेका छौं। हाम्रो अनुसन्धानको लागि, LEARN परियोजनामा सहभागी विभिन्न व्यक्तिहरूसँग कुरा गरिरहेका छौं। परियोजनासँग तपाइँको अनुभवको कारण हाम्रो अनुसन्धानमा सहभागी हुनको लागी चयन गरिएको छ। हामी तपाइँलाई तपाइँको पृष्ठभूमि, डिजिटल प्रविधिहरूसँग तपाइँको अनुभव, शिक्षण बारे तपाइँको मनोवृत्ति र विश्वास, र तपाइँको परियोजनासँगको अनुभव बारे केहि प्रश्नहरू सोध्न चाहन्छौं। हामी आशा गर्छौं कि अन्तर्वार्ता तीस मिनेटको हुनेछ। हाम्रो अनुसन्धानका नतिजाहरू LEARN परियोजना कसरी काम गरिरहेको छ र यसबाट के परिवर्तनहरू आयो भनेर बुझ्न मद्दत गर्न प्रयोग गरिनेछ। यद्यपि तपाईंले सर्वेक्षणमा आफ्नो सहभागिताबाट कुनै प्रत्यक्ष लाभहरू नदेख्न सक्नुहुन्छ, हामी आशा गर्छौं कि, हाम्रो अनुसन्धानमा भाग लिएर, LEARN परियोजनाले तपाईंको समुदायमा अपाङ्गता भएका बालबालिकाहरूको सिकाइ परिणामहरूलाई कसरी प्रभाव पार्छ भन्ने कुरा बुझ्न सक्छौं। तपाईंको सहभागिता पूर्णतया स्वैच्छिक छ। यदि तपाइँ सहभागी हुन चाहनु भएन भने त्यहाँ कुनै नकारात्मक परिणाम हुनेछैन। यदि तपाइँ सहभागी हुन रोज्नुहुन्छ भने, तपाइँ केहि प्रश्नहरूको जवाफ नदिने वा कुनै पनि समयमा अन्तर्वार्ता समाप्त गर्ने छनौट गर्न सक्नुहुन्छ। तपाईंका प्रतिक्रियाहरू गोप्य हुनेछन्, र यस अनुसन्धानका नतिजाहरू तपाईं वा अन्य सहभागीहरूलाई पहिचान नगर्ने तरिकाहरूमा मात्र प्रयोग गरिनेछ। यदि हामीले वार्तालापको क्रममा छलफल गरेको केहि कुराहरू जुन तपाईंलाई लेख्न वा रिपोर्ट गर्न मन पर्दैन भने कृपया हामीलाई थाहा दिनुहोस् । बेनामी डाटा - जसको अर्थ कुनै पनि डेटा बिना व्यक्तिगत जानकारी - यस अनुसन्धान अध्ययनबाट स्कूल-टू-स्कूल इन्टरनेशनलको स्वीकृतिमा अन्य अनुसन्धानकर्ताहरूले प्रयोग गर्न सक्छन्।	
Would you like to participate? के तपाई भाग लिन चहानुहुन्छ?	Yes हो
	No होइन
What language do you use most often at home/outside of the classroom? तपाई घरमा वा कक्षाकोठा बाहिर धेरैजसो कुन भाषा प्रयोग गर्नुहुन्छ?	Bajjika बज्जिका
	Bhojpuri भोजपुरी

Question	Response
	Magar मगर
	Maithali मैथली
	Nepali नेपाली
	Nepali Sign Language नेपाली साङ्गेतिक भाषा
	Newari नेवारी
	Tamang तमाङ्ग
	Other: _____ अन्यः_____
How long have you been a teacher? तपाई शिक्षक भएको कति समय भयो?	0 (this is first year teaching)
	1
	2
	3
	4
	5
	6-10
	11-15
	More than 15 15 भन्दा धेरै
How long have you been going to this school? यो विद्यालयमा जान थाल्नु भएको कति भयो ?	Less than one year एक वर्ष भन्दा कम
	One year or more एक वर्ष वा बढी
	Not sure/Don't know निश्चित छैन / थाहा छैन

Question	Response
What grades do you teach? [Select all that apply} तपाइले कति कक्षा सम्मलाई शिक्षण गर्नुहुन्छ?	Kinder बाल कक्षा
	G1 तह १
	G2 तह २
	G3 तह ३
	G4 तह ४
	G5 तह ५
	G6 तह ६
How many boys are present in your classroom today?	
How many girls are present in your classroom today?	
Do you have learners in your classroom with any of the following types of disabilities or difficulties: के तपाईको कक्षाकोठामा निम्न लिखित अपाङ्गता वा समस्या भएका विद्यार्थिहरू छन्?	
Deaf or hard of hearing? बहिरा वा सुस्त श्रवण भएका व्यक्ति	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Blind or low vision? दृष्टिबिहिन वा न्युन दृष्टि भएका व्यक्ति	Yes हो
	No होइन
	Don't know / no response

Question	Response
	थाहा छैन/कुनै प्रतिक्रिया छैन
Communication or speech disabilities or difficulties? संवाद वा संचार सम्बन्धी अपाङ्गता वा समस्या	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Learning or intellectual disabilities or difficulties? सिकाई वा बौद्धिक अपाङ्गता वा समस्या	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Physical or mobility disabilities or difficulties? शारिरिक वा गतिशिलता सम्बन्धी अपाङ्गता वा समस्या	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Other disabilities or difficulties? अन्य अपाङ्गता वा समस्या	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Learners with multiple disabilities? बहु अपाङ्गता भएका सिकारूहरू	Yes हो
	No होइन
	Don't know / no response

Question	Response
	थाहा छैन/कुनै प्रतिक्रिया छैन
Do you engage with the parents or caregivers of the learners in your classroom? के तपाईं आफ्नो कक्षाकोठामा विद्यार्थीहरूको अभिभावक वा हेरचाहकर्ताहरूसँग संलग्न हुनुहुन्छ?	Yes, often हो, प्रायजसो
	Yes, sometimes हो, कहिलेकाही
	Rarely विरलै
	Never कहिले पनि होइन
Which best describes the type of class(es) you teach? तपाईले पठाउनुहुने कक्षालाई यी मध्ये के ले राम्रो परिभाषित गर्छ?	Class in a "special school" (segregated) विशेष विद्यालय"मा भएको कक्षा
	Special education or resource class in a mainstrream school (integrated)
	Mainstream class with learners with disabilities and without disabilities together (inclusive)
What subjects do you teach? तपाईले कुन विषय पढाउनुहुन्छ?	Nepali reading नेपाली पढन
	Nepali writing नेपाली लेखन
	Mathematics गणित
	Sciences विज्ञान
	Other: _____ अन्यः_____
What is your highest level of academic education? तपाईको शिक्षाको उच्चतम स्तर के हो?	Some primary केहि प्रथमिक

Question	Response
	Primary completed प्राथमिक सकाएको
	Lower secondary completed निम्न माध्यमिक सकाएको
	School Leaving Certificate (SLC) or Technical School Leaving Certificate (TSLC) एस.एल.सी वा टे.एस.इल.सी
	+2 (Proficiency Certificate, HSEB Migration Certificate) प्लस टु
	Bachelor's degree completed स्नातक तह सकाएको
	Master's degree completedमास्टर डिग्री सकाएको
	PhD completedपी.एच.डी सकाएको
	Other: _____ अन्यः_____
	Don't know/no response थाहा छैन/कुनै प्रतिक्रिया छैन
During your pre-service training, did you receive any training on how to teach reading to early grade learners? के तपाइले pre-service तालिममा प्राथमिक तहका सिकारुहरुलाई कसरी पढ्न सिकाउने भन्ने बारे तालिम प्राप्त गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
During your pre-service training, did you receive any training on how to teach reading to early grade learners with disabilities?	Yes हो
	No

Question	Response
के तपाइले pre-service तालिममा प्राथमिक तहका अपाङ्गता भएका सिकारूहरूलाई कसरी पढ्न सिकाउने भन्ने बारे तालिम प्राप्त गर्नुभएको छ?	होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received any in-service training on how to teach reading to early grade learners? के तपाइले प्राथमिक तहका सिकारूहरूलाई कसरी पढ्न सिकाउने भनेर in-service तालिम प्राप्त गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
When was the last time you received in-service training on how to teach reading to early grade learners? तपाइले प्राथमिक तहका सिकारूहरूलाई कसरी पढ्न सिकाउने भन्ने बारे in-service तालिम कहिले प्राप्त गर्नुभएको थियो?	Within past year गत वर्ष भित्र
	1-2 years ago1-2 वर्ष भयो
	3-4 years ago ३-४ वर्ष भयो
	5-10 years ago ५-१० वर्ष भयो
	More than 10 years ago १० वर्ष भन्दा धेरै भयो
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received any in-service training on how to teach reading to early grade learners with disabilities? के तपाइले प्राथमिक तहका अपाङ्गता भएका सिकारूहरूलाई कसरी पढ्न सिकाउने भन्ने बारे in-service तालिम प्राप्त गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
When was the last time you received in-service training on how to teach reading to early grade learners with disabilities? तपाइले प्राथमिक तहका अपाङ्गता भएका सिकारूहरूलाई कसरी पढ्न सिकाउने भन्ने बारे in-service तालिम कहिले प्राप्त गर्नुभएको थियो?	Within past year गत वर्ष भित्र
	1-2 years ago1-2 वर्ष भयो
	3-4 years ago

Question	Response
	३-४ वर्ष भयो
	5-10 years ago ५-१० वर्ष भयो
	More than 10 years ago १० वर्ष भन्दा धेरै भयो
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Do you consider yourself to have a disability? के तपाईलाई आफु अपाङ्गता भएको व्यक्ति हो जस्तो लाग्छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
What kind of disability? कुन प्रकारको अपाङ्गता?	Deaf or hard of hearing बहिरा वा सुस्त श्रवण भएका व्यक्ति
	Blind or low vision दृष्टिविहिन वा न्युन दृष्टि भएका व्यक्ति
	Communication or speech संवाद वा संचार सम्बन्धी अपाङ्गता भएका व्यक्ति
	Learning or intellectual सिकाई वा बौद्धिक अपाङ्गता भएका च्यक्ति
	Physical or mobility शारिरिक वा गतिशिलता सम्बन्धी अपाङ्गता भएका व्यक्ति
	Other: _____ अन्यः_____
	Very good

Question	Response
How would you describe your skills in Nepali Sign Language? Would you say, very good, good, poor, or do not know Nepali Sign Language? तपाई नेपाली साङ्केतिक भाषामा कतिको राम्रो हुनुहुन्छ? धेरै राम्रो, राम्रो, ठिकै, आउँदैन।	धेरै राम्रो
	Good राम्रो
	Poor खराब
	Do not know Nepali Sign Language नेपाली साङ्गेतिक भाषा थाहा छैन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received training or taken formal lessons to learn Nepali Sign Language? के तपाईले नेपाली साङ्केतिक भाषा सम्बन्धी तालिम वा औपचारिक शिक्षण गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received training on how to teach Nepali Sign Language? के तपाईले नेपाली साङ्केतिक भाषा कसरी सिकाउने भन्ने बारे तालिम लिनुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How would you describe your skills in reading braille? Would you say, very good, good, poor, or do not know how to read braille? तपाई ब्रेल कतिको राम्रोसँग पढ्नुहुन्छ? धेरै राम्रो, राम्रो, ठिकै,पढ्न आउँदैन।	Very good धेरै राम्रो
	Good राम्रो
	Poor खराब
	Do not know Nepali Sign Language

Question	Response
	नेपाली साङ्गेतिक भाषा थाहा छैन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received training or taken formal lessons to learn to read braille? के तपाईले ब्रेल पढ्नमा कुनै तालिम वा औपचारिक शिक्षण गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received training on how to teach learners to read braille? के तपाईले सिकारुहरुलाई ब्रेल पढ्न कसरी सिकाउने भन्ने बारे तालिम लिनुभएको छ?	Yes हो
	No होइन
Now I want to ask you about your participation in the LEARN program अब म तपाईलाई LEARN कार्यक्रममा तपाईको सहभागिताको बारेमा सोध्न चाहन्छु	
Which LEARN trainings did you participate in? तपाईंले LEARNको कुन तालिममा भाग लिनुभयो ?	3 Days Teachers Training on Universal Design for Learning (UDL) सिकाइको विश्वव्यापी ढाँचा सम्बन्धी 3 दिने शिक्षक तालिम
	2 Days Refresher Teachers Training on Universal Design for Learning (UDL) सिकाइको विश्वव्यापी ढाँचा सम्बन्धी 2 दिने पुनर्ताजगी शिक्षक तालिम 10 Days NSL Training 10 दिने नेपाली सांकेतिक भाषाको तालिम
	Other अन्य
	None of the above माथिको कुनै पनि छैन

Question	Response
How satisified were you with the content of these trainings? तपाईं यी तालिमहरूको विषयवस्तुहरूसँग कत्तिको सन्तुष्ट हुनुहुन्छ ?	Very satisfied धेरै सन्तुष्ट
	Moderately satisfied मध्यम सन्तुष्ट
	Moderately dissatisfied सामान्य असन्तुष्ट
	Very dissatisfied धेरै असन्तुष्ट
	Not sure/Don't know निश्चित छैन थाहा छैन
Was there anything about the tranings that could have been improved? के त्यस तालिममा सुधार गर्न पर्ने पक्ष थियो ?	Yes हो
	No होइन
If yes, please share what could have been improved? यदि थियो भने, के सुधार गर्न सकिन्छ भन्ने सेयर गर्नुहोस् ?	
How much do you agree with the following statements about the LEARN trainings. You can strongly agree, agree, disagree, or strongly disagree. LEARN तालिमको बारेमा निम्न कथनहरूसँग तपाईं कत्तिको सहमत हुनुहुन्छ। तपाईं दृढतापूर्वक सहमत, सहमत, असहमत, वा दृढतापूर्वक असहमत हुन सक्नुहुन्छ।	
The LEARN trainings I attended contained useful information that meet my specific needs as a teacher. मैले भाग लिएको LEARN तालिमहरूमा शिक्षकको रूपमा मेरो विशेष आवश्यकताहरू पूरा गर्ने उपयोगी जानकारीहरू थिए ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
[If agree or strongly agree to previous] What information did you learn through the LEARN trainings that met your needs?	

Question	Response
[यदि अघिल्लोसँग सहमत हुनुहुन्छ वा दृढतापूर्वक सहमत हुनुहुन्छ भने] तपाईंले आफ्नो आवश्यकताहरू पूरा गर्ने LEARN तालिम मार्फत कुन जानकारी सिक्नुभयो ?	
The LEARN trainings I attended provided me with skills that meet my specific needs as a teacher. मैले भाग लिएको LEARN तालिमले मलाई शिक्षकको रूपमा मेरो विशेष आवश्यकताहरू पूरा गर्ने सीपहरू प्रदान गर्‍यो।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
[If agree or strongly agree to previous] What resources did you receive through the LEARN trainings that met your needs? [यदि अघिल्लोसँग सहमत हुनुहुन्छ वा दृढ रूपमा सहमत हुनुहुन्छ भने] तपाईंले LEARN तालिम मार्फत कुन स्रोतहरू प्राप्त गर्नुभयो जसले तपाईंको आवश्यकताहरू पूरा गर्नुभयो ?	
The LEARN trainings I attended provided me with other support that meet my specific needs as a teacher. मैले भाग लिएको LEARN तालिमले मलाई शिक्षकको रूपमा मेरो विशेष आवश्यकताहरू पूरा गर्ने अन्य सहयोगहरू प्रदान गर्‍यो।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
[If agree or strongly agree to previous] What other support did you receive through the LEARN trainings that met your needs? [यदि अघिल्लोसँग सहमत हुनुहुन्छ वा दृढ रूपमा सहमत हुनुहुन्छ भने] तपाईंले आफ्नो आवश्यकताहरू पूरा गर्ने LEARN तालिमहरू मार्फत अरू कुन सहयोग प्राप्त गर्नुभयो ?	
In an average school week, how frequently would you say you use the information, skills, resources, and other support you received through LEARN trainings in your lessons?	

Question	Response
औसत विद्यालय संचालन भएको कुनै हप्तामा, तपाइँले तपाइँको पाठहरूमा LEARN तालिम मार्फत प्राप्त जानकारी, सीप, स्रोतहरू, र अन्य सहयोगहरू कति पटक प्रयोग गर्नुहुन्छ भनेर भन्नु हुन्छ ?	
Information learned during LEARN trainings LEARN तालिममा सिकेको जानकारी	Every lesson हरेक पाठ
	One or two lessons per week हप्तामा एक वा दुई पाठ
	Three or four lessons per week हप्तामा तीन वा चार पाठ
	Once per week हप्तामा एक पटक
	Less than once per week हप्तामा एक पटक भन्दा कम
	I have never used the information I learned in school lessons मैले विद्यालयका पाठहरूमा सिकेको जानकारी कहिल्यै प्रयोग गरेको छैन
	Don't know/not sure थाहा छैन / निश्चित छैन
Skills learned during LEARN trainings LEARN तालिममा सिकेका सीपहरू	Every lesson हरेक पाठ
	One or two lessons per week हप्तामा एक वा दुई पाठ
	Three or four lessons per week हप्तामा तीन वा चार पाठ
	Once per week हप्तामा एक पटक
	Less than once per week

Question	Response
	हप्तामा एक पटक भन्दा कम
	I have never used the information I learned in school lessons मैले विद्यालयका पाठहरूमा सिकेको जानकारी कहिल्यै प्रयोग गरेको छैन
	Don't know/not sure थाहा छैन / निश्चित छैन
Resources received through LEARN trainings LEARN तालिम मार्फत प्राप्त स्रोतहरू	Every lesson हरेक पाठ
	One or two lessons per week हप्तामा एक वा दुई पाठ
	Three or four lessons per week हप्तामा तीन वा चार पाठ
	Once per week हप्तामा एक पटक
	Less than once per week हप्तामा एक पटक भन्दा कम
	I have never used the information I learned in school lessons मैले विद्यालयका पाठहरूमा सिकेको जानकारी कहिल्यै प्रयोग गरेको छैन
	Don't know/not sure थाहा छैन / निश्चित छैन
Other support received through LEARN trainings LEARN तालिम मार्फत प्राप्त अन्य सहयोग	Every lesson हरेक पाठ
	One or two lessons per week हप्तामा एक वा दुई पाठ

Question	Response
	Three or four lessons per week हप्तामा तीन वा चार पाठ
	Once per week हप्तामा एक पटक
	Less than once per week हप्तामा एक पटक भन्दा कम
	I have never used the information I learned in school lessons मैले विद्यालयका पाठहरूमा सिकेको जानकारी कहिल्यै प्रयोग गरेको छैन
	Don't know/not sure थाहा छैन / निश्चित छैन
Aside from LEARN trainings, have you ever received training on how to use technologies to support learners with disabilities? के तपाईले कहिले प्रविधिको प्रयोगबाट अपाङ्गता भएका सिकारूहरूलाई कसरी सहयोग गर्ने भन्ने बारे तालिम लिनु भएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Aside from LEARN trainings, have you ever received training on how to accommodate and engage learners with different types of disabilities in your classroom? के तपाईले कहिले विभिन्न अपाङ्गता भएका सिकारूहरूलाई कक्षाकोठामा कसरी समाबेश र संलग्न गराउने भन्ने बारे तालिम लिनु भएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Now I'll ask you some questions about different technologies, for example, computers or phones, that you might have access to in your home or at school. अब म तपाईलाई तपाइको घरमा पहुँच भएको विभिन्न प्रविधिहरू जस्तै: कम्प्युटर वा मोबाइल को बारेमा केहि प्रश्न सोध्नेछु।	
Do you have access to a computer or tablet at home or at school?	Yes, at home

Question	Response
के तपाईसँग घर वा विध्यालयमा कम्प्युटर वा ट्याबलेट उपलब्ध छ?	हो, घरमा
	Yes, at school हो, विद्याल्यमा
	Yes, at home and at school हो, घर र विद्याल्यमा
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
During the last three months, how often did you use a computer or tablet at school? That is, for preparation or for in-class instruction. विगतको 3 महिनामा तपाईले घर वा विध्यालयमा कम्प्युटर वा ट्याबलेटको कतिको प्रयोग गर्नुभयो? (कक्षा तयारी वा कक्षामा कुनै निर्देशन दिनको लागी)	Almost every day लगभग दैनिक
	At least once a week हप्तामा कम्तिमा एक पटक
	Less than once a week हप्तामा एक पटक भन्दा कम
	Not at all हुदै हैन
How would you describe your level of comfort in using a computer or tablet? तपाईलाई कम्प्युटर वा ट्याबलेट प्रयोग गर्न कतिको सजिलो लाग्छ?	Very comfortable धेरै सहज
	Comfortable सहज
	Not very comfortable धेरै सहज छैन
	Not at all comfortable पटक्कै सहज छैन
Do you have access to a mobile feature phone at home or at school? के तपाईको घर वा विध्यालयमा मोबाईल फोनको सुविधाहरू उपलब्ध छ?	Yes, at home हो, घरमा
	Yes, at school हो, विद्याल्यमा
	Yes, at home and at school हो, घर र विद्याल्यमा

Question	Response
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
During the last three months, how often did you use a mobile feature phone at school? That is, for preparation, for in-class instruction, or with students. विगतको 3 महिनामा तपाईले विध्यालयमा मोबाईल फोनको सुविधाहरुको कतिको प्रयोग गर्नुभयो? (कक्षा तयारी वा कक्षामा कुनै निर्देशन दिनको लागी वा विद्यार्थिहरुसँग)	Almost every day लगभग दैनिक
	At least once a week हप्तामा कम्तिमा एक पटक
	Less than once a week हप्तामा एक पटक भन्दा कम
	Not at all हुदै हैन
How would you describe your level of comfort in using a mobile phone? तपाईलाई मोबाइल फोन प्रयोग गर्न कतिको सजिलो लाग्छ?	Very comfortable धेरै सहज
	Comfortable सहज
	Not very comfortable धेरै सहज छैन
	Not at all comfortable पटक्कै सहज छैन
Do you have access to a smart phone at home or at school? के तपाईसँग घरमा वा विद्याल्यमा स्मार्टफोन छ?	Yes, at home हो, घरमा
	Yes, at school हो, विद्याल्यमा
	Yes, at home and at school हो, घर र विद्याल्यमा
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How would you describe your level of comfort in using a smart phone?	Very comfortable

Question	Response
तपाईलाई स्मार्ट फोन प्रयोग गर्न कतिको सजिलो लाग्छ?	धेरै सहज
	Comfortable सहज
	Not very comfortable धेरै सहज छैन
	Not at all comfortable पटक्कै सहज छैन
Do you have access to the internet at home or at school? के तपाईको घरमा वा विद्यालयमा ईन्टरनेट उपलब्ध छ?	Yes, at home हो, घरमा
	Yes, at school हो, विद्याल्यमा
	Yes, at home and at school हो, घर र विद्याल्यमा
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
During the last three months, how often did you use the internet at school? That is, for preparation, for in-class instruction, or with students. विगतको 3 महिनामा तपाइले विद्यालयमा ईन्टरनेट कतिको प्रयोग गर्नुभयो? (कक्षा तयारी वा कक्षामा कुनै निर्देशन दिनको लागी वा विद्यार्थिहरुसँग)	Almost every day लगभग दैनिक
	At least once a week हप्तामा कम्तिमा एक पटक
	Less than once a week हप्तामा एक पटक भन्दा कम
	Not at all हुदै हैन
How would you describe your level of comfort in using the internet? तपाईलाई ईन्टरनेट प्रयोग गर्न कतिको सजिलो लाग्छ?	Very comfortable धेरै सहज
	Comfortable सहज
	Not very comfortable धेरै सहज छैन

Question	Response
	Not at all comfortable पटक्कै सहज छैन
What kinds of EdTech did you learn about in the LEARN trainings you participated in? [Enumerator note: Do not read answers aloud, ask teacher to list options and check any that correspond to the response list] तपाईंले भाग लिनुभएको LEARN तालिममा तपाईंले कुन प्रकारको EdTech बारे सिक्नुभयो ? [गणक नोट: ठूलो स्वरले जवाफ नपढ्नुहोस्, शिक्षकलाई विकल्पहरूको सूची बनाउन र कुनै पनि प्रतिक्रिया सूचीसँग मिल्ने जाँच गर्नुहोस्]	Applications एप्लिकेसनहरू
	Digital books/library डिजिटल पुस्तक/पुस्तकालय
	Disability focused materials अपाङ्गता केन्द्रित सामग्री
	E-lessons ई-पाठहरू
	Games खेलहरू
	Learning videos सिकाइ भिडियोहरू
	Parent resources अभिभावकका स्रोतहरू
	Sign language books सांकेतिक भाषाका पुस्तकहरू
	Teacher Resources शिक्षक स्रोतहरू
	Things you can make तपाईंले बनाउन सक्ने कुराहरू
	Laptop/Computer ल्यापटप/कम्प्यूटर
	TV Screen/ProjectorTV स्क्रिन/प्रोजेक्टर
	Microphone माइक्रोफोन
	Braille keyboards ब्रेल किबोर्डहरू

Question	Response
	Tablet ट्याब्लेट
	Typoscope टाइपोस्कोप
	Evo DAISY players इभो डैस्री प्लेएर
Did you install any of the following mobile applications on your own personal mobile device, without any assistance from LEARN project staff? के तपाईंले LEARN परियोजनाका कर्मचारीहरूको कुनै सहयोग बिना आफ्नो व्यक्तिगत मोबाइल उपकरणमा निम्न मोबाइल एप्लिकेसनहरू इन्स्टल गर्नुभयो ?	Beautiful Minds app Beautiful Minds app
	Feed the Monster app Feed the Monster app
	Read Along Read Along
	Fredium Fredium
	ACNS Sunaulo Bihani ACNS Sunaulo Bihani
	Bloom Reader Bloom Reader
	Deaf Note Deaf Note
	E-Pustakalaya ई-पुस्तकालय
	Hamro Ramailo Katha हाम्रो रमाइलो कथा
	Let's Read TAF Let's Read TAF
	Mero Sanket मेरो संकेत
	Nepali Barnamala नेपाली बर्णमाला
	Ramailo Padha

Question	Response
	इरमाइलो पढाई
	None of the above माथिको कुनै पनि छैन
In the past five days of school, what kinds of EdTech have you used with your learners? [Enumerator note: Do not read answers aloud, ask teacher to list options and check any that correspond to the response list] विद्यालयको गएको पाँच दिनहरूमा, तपाइँले तपाइँका विद्यार्थीहरूसँग कस्तो प्रकारको Edtech प्रयोग गर्नुभयो ? [गणक नोट: ठूलो स्वरले जवाफ नपढ्नुहोस्, शिक्षकलाई विकल्पहरूको सूची बनाउन र कुनै पनि प्रतिक्रिया सूचीसँग मिल्ने जाँच गर्नुहोस्]	Applications एप्लिकेसनहरू
	Digital books/library डिजिटल पुस्तक/पुस्तकालय
	Disability focused materials अपाङ्गता केन्द्रित सामग्री
	E-lessons ई-पाठहरू
	Games खेलहरू
	Learning videos सिकाइ भिडियोहरू
	Parent resources अभिभावकका स्रोतहरू
	Sign language books सांकेतिक भाषाका पुस्तकहरू
	Teacher Resources शिक्षक स्रोतहरू
	Things you can make तपाईंले बनाउन सक्ने कुराहरू
	Laptop/Computer ल्यापटप/कम्प्यूटर
	TV Screen/ProjectorTV स्क्रिन/प्रोजेक्टर
	Microphone माइक्रोफोन
	Braille keyboards

Question	Response
	ब्रेल किबोर्डहरू
	Tablet ट्याब्लेट
	Typoscope टाइपोस्कोप
	Evo DAISY players इभो डैस्री प्लेएर
	None of the above माथिको कुनै पनि छैन
In the last five days of school, how often did you use any of these EdTech solutions in your classrooms and with your learners? विद्यालयको गएको पाँच दिनमा, तपाइँले तपाइँको कक्षाकोठामा र तपाइँका विद्यार्थीहरूसँग यी मध्ये कुनै पनि Edtech सामग्री कति पटक प्रयोग गर्नुभयो ?	Daily दैनिक
	Three to Four times तीन चार पटक
	Once or twice एक वा दुई पटक
	Never कहिल्यै
	Don't know / no response थाहा छैन कुनै प्रतिक्रिया छैन
Do you think you will use any of the following apps or technologies in your lessons in the next academic year? [Read the following list: Beautiful Minds app, Feed the Monster app, Read Along, Fredium, ACNS Sunaulo Bihani, Bloom Reader, Deaf Note, E-Pustakalaya, Hamro Ramailo Katha, Let's Read TAF, Mero Sanket, Nepali Barnamala, Ramailo Padhai, Digital books/library, Disability focused materials, E-lessons, Games, Learning videos, Parent resources, Sign language books, Teacher Resources, Things you can make, Laptop/Computer, Screen/Projector, Microphone, Braille keyboards, DAISY players] के तपाइँ अर्को शैक्षिक सत्रमा तपाइँका पाठहरूमा निम्न एप वा प्रविधिहरू प्रयोग गर्नुहुनेछ जस्तो लाग्छ ? निम्न सूची पढ्नुहोस्: ब्यूटीफुल माइन्ड्स एप, फिड द मोन्स्टर एप, रिड अलंग, फ्रेडियम, एसीएनएस सुनौलो बिहानी, ब्लूम रिडर, डेफ नोट, ई-पुस्तकालय, हाम्रो रमाइलो कथा, Let's Read TAF, मेरो सङ्केत, नेपाली बर्नमाला, रमाइलो पढाइ। , डिजिटल पुस्तकहरू/पुस्तकालय, अपाङ्गता केन्द्रित सामग्रीहरू, ई-पाठहरू, खेलहरू, सिकाइ भिडियोहरू, अभिभावक स्रोतहरू, सांकेतिक भाषाका पुस्तकहरू, शिक्षक स्रोतहरू, तपाईंले बनाउन सक्ने कुराहरू, ल्यापटप/कम्प्यूटर, TV स्क्रिन/प्रोजेक्टर, माइक्रोफोन, ब्रेल किबोर्डहरू, इभो डैस्री प्लेएर	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
[If previous question is yes] Which of the following do you intend to use in your lessons in the next academic year? यदि अघिल्लो प्रश्न "हो" भने] अर्को शैक्षिक वर्षमा तपाइँ निम्न मध्ये कुनलाई तपाइँको पाठमा प्रयोग गर्न चाहानुहुन्छ ?	Beautiful Minds app Beautiful Minds app
	Feed the Monster app Feed the Monster app
	Read Along Read Along
	Fredium Fredium
	ACNS Sunaulo Bihani ACNS Sunaulo Bihani
	Bloom Reader Bloom Reader
	Deaf Note Deaf Note
	E-Pustakalaya ई-पुस्तकालय
	Hamro Ramailo Katha हाम्रो रमाइलो कथा
	Let's Read TAF Let's Read TAF
	Mero Sanket मेरो संकेत
	Nepali Barnamala नेपाली बर्णमाला
	Ramailo Padha ıरमाइलो पढाई
	Digital books/library डिजिटल पुस्तक/पुस्तकालय
	Disability focused materials अपाङ्गता केन्द्रित सामग्री

Question	Response
	E-lessons ई-पाठहरू
	Games खेलहरू
	Learning videos सिकाइ भिडियोहरू
	Parent resources अभिभावकका स्रोतहरू
	Sign language books सांकेतिक भाषाका पुस्तकहरू
	Teacher Resources शिक्षक स्रोतहरू
	Things you can make तपाईंले बनाउन सक्ने कुराहरू
	Laptop/Computer ल्यापटप/कम्प्यूटर
	TV Screen/ProjectorTV स्क्रिन/प्रोजेक्टर
	Microphone माइक्रोफोन
	Braille keyboards ब्रेल किबोर्डहरू
	Tablet ट्याब्लेट
	Typoscope टाइपोस्कोप
	Evo DAISY players इभो डैस्री प्लेएर
What are some reasons why you did not use the apps or technologies we just mentioned in your lessons?	I didn't have time to access the apps/technology during the lesson

Question	Response
	मसँग पढाउने समयमा एप्स/प्रविधि पहुँच गर्नें समय थिएन
	I don't have enough tech skills and knowledge to use the apps or technology during lessons मसँग पढाउने समयमा एप्स वा प्रविधि प्रयोग गर्न पर्याप्त प्राविधिक सीप र ज्ञान छैन
	I don't think the apps or technologies were relevant to my lessons मलाई लाग्दैन कि एप्सहरू वा प्रविधिहरू मेरो पाठहरूमा सान्दर्भिक थिए
	The apps/technology did not work correctly or broke एप्स/प्रविधिले ठीकसँग काम गरेन वा बिग्रियो
	There is no internet to be able to use the apps or technology एप्स वा प्रविधि प्रयोग गर्न इन्टरनेट छैन
	There is no electricity to use the apps or technology एप्स वा प्रविधि प्रयोग गर्न बिजुली छैन
	Students get distracted while using technologies प्रविधिको प्रयोग गर्दा विद्यार्थीहरू विचलित हुन्छन्
	Difficulty in integrating technology in the curriculum पाठ्यक्रममा प्रविधिलाई एकीकृत गर्न कठिनाई

Question	Response
How much would you agree with the following statements about the EdTech solutions provided by LEARN? LEARNद्वारा प्रदान गरिएको Edtech सामग्रीहरूको बारेमा निम्न कथनहरूसँग तपाईं कत्तिको सहमत हुनुहुन्छ ?	
I could easily refer to and access the EdTech toolkit provided by LEARN. म LEARN द्वारा प्रदान गरिएको Edtech टूलकिटलाई सजिलैसँग साभार र पहुँच गर्न सक्छु	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I could easily use the EdTech solutions to present materials to learners. म विद्यार्थिहरूलाई सुचना प्रस्तुत गर्न सजिलैसँग Edtech सामग्रीहरू प्रयोग गर्न सक्छु	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
The EdTech solutions were accessible for learner use. विद्यार्थिहरूको प्रयोगको लागि Edtech पहुँचयोग्य थिए	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत

Question	Response
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
My learners could use the EdTech solutions to learn basic reading skills. मेरा विद्यार्थिहरूले आधारभूत पठन सीपहरू सिक्न Edtechको प्रयोग गर्न सक्छन्	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
My learners could use the EdTech solutions to enhance their problem solving skills. मेरा विद्यार्थिहरूले आफ्नो समस्या समाधान गर्ने सीपहरू बढाउन Edtechको प्रयोग गर्न सक्छन्	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
My learners could use the EdTech solutions to present their learnings. मेरा विद्यार्थिहरूले आफुले सिकेका कुराहरू प्रस्तुत गर्न Edtechको प्रयोग गर्न सक्छन्	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response

Question	Response
	थाहा छैन/कुनै प्रतिक्रिया छैन
How satisfied were you with the EdTech solutions you learned about through the LEARN training? LEARN तालिम मार्फत तपाईंले सिकेका Edtechका साधनहरूसँग तपाईं कत्तिको सन्तुष्ट हुनुहुन्छ ?	Very satisfied धेरै सन्तुष्ट
	Moderately satisfied मध्यम सन्तुष्ट
	Moderately dissatisfied सामान्य असन्तुष्ट
	Very dissatisfied धेरै असन्तुष्ट
How much do you agree with the following statements about your current teaching knowledge and skills. You can strongly agree, agree, disagree, or strongly disagree. तल दिइएका कथनहरूसँग कतिको सहमत हुनुहुन्छ?	
I know how to use varied or differentiated learning activities to engage a diverse range of learners. मलाई विविध प्रकारका सिकारुहरुलाई कक्षामा संलग्न गराउनको लागी विभिन्न प्रकारको सिकाईका क्रियाकलापहरू थाह छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I know different strategies to motivate and engage a diverse range of learners. मलाई विविध प्रकारका सिकारुहरुलाई कक्षामा संलग्न गराउन र उत्साहित बनाउने विभिन्न	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response

Question	Response
	थाहा छैन/कुनै प्रतिक्रिया छैन
I give my learners different types of opportunities to express what they learn. म मेरो विद्यार्थिहरूलाई उनिहरूले सिकेको कुरा व्यक्त गर्नको लागी विभिन्न मौकाहरू दिन्छु।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I believe that it is important to present information to learners in a variety of ways. मलाई लाग्छ की विद्यार्थिहरूलाई सुचनाहरू विविध तरिकाले प्रस्तुत गर्न महत्वपुर्ण हुन्छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I believe that it is important to allow learners to express what they know in a variety of ways. मलाई लाग्छ की विद्यार्थिहरूलाई आफुले सिकेको कुराहरू विविध तरिकाले व्यक्त गर्न दिन महत्वपुर्ण हुन्छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
I believe that it is important to motivate and engage learners in a variety of ways. मलाई लाग्छ की विद्यार्थिहरूलाई विविध तरिकाले प्रोत्साहन र संलग्न गर्न महत्वपुर्ण हुन्छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I can use a variety of assessment strategies for my learners. म विद्यार्थीहरूको मुल्याङ्कनको लागी विविध रणनितिहरू प्रयोग गर्छु।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I can provide an alternative explanation or example when learners are confused. म मेरो विद्यार्थिहरू अलमलिएको बेला वैकल्पिक तरिकाले व्याख्या गर्न र उदाहरण दिन सक्छु।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
In the last five days of school, did you use any of the following strategies with learners in your class? विद्यालयको गएको अन्तिम पाँच दिनमा, के तपाईंले आफ्नो कक्षाका विद्यार्थीहरूसँग निम्न मध्ये कुनै रणनीति प्रयोग गर्नुभयो ?	Varied or differentiated learning strategies for a diverse range of learners विद्यार्थीहरूको विविध दायराका लागि विविध वा विभेदित सिकाइ रणनीतिहरू
	Different strategies to motivate and engage a diverse range of learners विभिन्न प्रकारका विद्यार्थीहरूलाई उत्प्रेरित गर्न र संलग्न गराउन विभिन्न रणनीतिहरू
	Various opportunities for learners to express what they learn विद्यार्थीहरूलाई आफूले सिकेको कुरा व्यक्त गर्ने विभिन्न अवसरहरू
	Presented information to learners in a variety of ways विद्यार्थीहरूलाई विभिन्न तरिकामा जानकारी प्रस्तुत गरियो
	A variety of assessment strategies for my learnersमेरो विद्यार्थीहरूको लागि विभिन्न मूल्याङ्कन रणनीतिहरू
	Alternative explanations or examples when learners were confused वैकल्पिक व्याख्या वा उदाहरणहरू जब विद्यार्थीहरू अलमलमा परेका थिए
In the last five days of school, in what kinds of lessons did you use the previous strategies mentioned with learners in your class?	Nepali reading नेपाली पढन

Question	Response
विद्यालयको गएको अन्तिम पाँच दिनमा, तपाईंले तपाईंको कक्षामा विद्यार्थीहरूसँग उल्लिखित अघिल्लो रणनीतिहरू कुन प्रकारका पाठहरूमा प्रयोग गर्नुभयो ?	Nepali writing नेपाली लेखन
	Mathematics गणित
	Sciences विज्ञान
	Other: अन्यः
Now I'll ask you some questions about supporting learners in your classroom. अब म तपाईलाई तपाइको घरमा पहुँच भएको विभिन्न प्रविधिहरु जस्तै: कम्प्युटर वा मोबाइल को बारेमा केहि प्रश्न सोध्नेछु।	
Children's learning abilities and needs may vary depending on their physical, mental, intellectual and emotional state. Therefore, an IEP is a plan designed to address the personal educational needs of children with learning difficulties due to functional limitations or disabilities. बालबालिकाहरुको शारीरिक, मानसिक, वौद्धिक तथा संवेगात्मक अवस्थाको आधारमा सिकाइ सक्षमता र आवश्यकता फरक–फरक हुन सक्छन्। तसर्थ कार्यगत सीमितता वा अपाङ्गताका कारणले सिकाइमा समस्या भएका बालबालिकाहरुको ब्यक्तिगत शैक्षिक आवश्यकता सम्बोधन गर्न तयार गरिने योजना नै वैयक्तिक शैक्षणिक योजना हो।	
Have you heard of an IEP before? के तपाईंले IEP को बारे पहिले सुन्नुभएको थियो?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Have you ever received training on how to use an IEP with your learners through the LEARN project? के तपाईंले आफ्नो विद्यार्थिहरुसँग IEP कसरी प्रयोग गर्ने भन्ने बारे तालिम प्राप्त गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन

Question	Response
Have you ever used an IEP with any of your learners? के तपाईले आफ्नो विद्यार्थिहरूसँग IEP प्रयोग गर्नुभएको छ?	Yes हो
	No होइन
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
How much do you agree with the following statements. You can strongly agree, agree, disagree, or strongly disagree. तल दिइएका कथनहरूसँग कतिको सहमत हुनुहुन्छ?	
An IEP helps me understand the needs of my learners. IEP ले मलाई आफ्नो विद्यार्थिहरूको आवश्यकता बुझ्न सहयोग गर्छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
The work it takes to create IEPs for my learners outweighs the benefits. IEP का लाभहरू भन्दा बढी यसलाई बनाउन लाग्ने समय धेरै हुन्छ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
An IEP can help match a learner to different technologies to support their reading.	Strongly agree धेरै सहमत

Question	Response
IEP ले कुनै पनि विद्यार्थिलाई विभिन्न प्रविधीहरुसँग जोडी पढाइमा सहयोग गर्न मद्दत गर्छ।	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Using technologies can help a diverse range of learners learn to read. प्रविधिको प्रयोगले विविध प्रकारका विद्यार्थिहरुलाई पढाइमा सहयोग पुयर्‍उँछ।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
Having learners use technologies in the classroom is more of a distraction than a benefit. विद्यार्थिहरुलाई कक्षाकोठामा प्रविधि प्रयोग गर्न दिनु भनेको उनिहरुको ध्यान भंग गर्नु हो।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I know how to match different technologies to learners with different needs. मलाई विद्यार्थिहरुलाई उनिहरुको आवश्यकता अनुरुप प्रविधि पहिचान गर्न आऊँछ।	Strongly agree धेरै सहमत
	Agree

Question	Response
	सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
I am confident using technologies in my classroom. म कक्षाकोठामा प्रविधिको प्रयोग गर्न सक्छु भन्ने कुरामा विश्वश्त छु।	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
The process of using IEPs to match technologies to learners' needs could be improved. IEP प्रयोग गर्ने प्रकृयालाई प्रविधीसँग मेल खाने गरी विद्यार्थीहरूको आवश्यकतआ अनुरूप सुधार गर्न सकिन्छ	Strongly agree धेरै सहमत
	Agree सहमत
	Disagree असहमत
	Strongly disagree धेरै असहमत
	Don't know / no response थाहा छैन/कुनै प्रतिक्रिया छैन
[If previous response is agree or strongly agree] In your opinion, how could the process of using IEPs to match learners with specialized learning materials using EdTech be improved?	

Question	Response
[यदि अघिल्लो प्रतिक्रिया सहमत वा दृढतापूर्वक सहमत हुनुहुन्छ भने] तपाईको विचारमा, IEP प्रयोग गर्ने प्रकृयालाई Edtech प्रयोग गरेर विशेष सिकाइ सामग्री भएका विद्यार्थिहरूलाई मिलाउन कसरी सुधार गर्न सकिन्छ ?	
Those are all the questions I have for you. Do you have any questions for me? मसँग भएका प्रश्नहरु यतिनै हुन। तपाईसँग मेरो लागी केही प्रश्नहरु छन्?	
Thank you so much for your time and your responses. Your thoughts and opinions are very valuable to us. तपाईको समय र प्रतिक्रियाको लागी धेरै धन्यवाद।	

Appendix G

Results by Key Disaggregates

BL = Baseline

EL = Endline

Learner Sample Overview

Variable	Group	Blind/Low vision				Cognitive Disability				Deaf/Hard of hearing				Total			
		BL N	BL %	EL N	EL %	BL N	BL %	EL N	EL %	BL N	BL %	EL N	EL %	BL N	BL %	EL N	EL %
Province	Bagmati	43	74.1	39	72.2	47	54.7	47	60.3	56	53.8	55	53.4	146	58.9	141	60.0
	Gandaki	2	3.4	2	3.7	26	30.2	22	28.2	21	20.2	21	20.4	49	19.8	45	19.1
	Karnali	8	13.8	8	14.8	7	8.1	5	6.4	9	8.7	9	8.7	24	9.7	22	9.4
	Madesh	5	8.6	5	9.3	6	7.0	4	5.1	18	17.3	18	17.5	29	11.7	27	11.5
Grade	ECD	20	34.5	13	24.1	1	1.2	6	7.7	5	4.8	3	3	26	10.5	22	9.4
	G1	17	29.3	7	13.0	2	2.3	7	9.0	24	23.1	20	19.8	43	17.3	34	14.6
	G2	9	15.5	14	25.9	1	1.2	2	2.6	33	31.7	27	26.7	43	17.3	43	18.5
	G3	12	20.7	9	16.7	0	0.0	5	6.4	42	40.4	41	40.6	54	21.8	55	23.6
	G4	0	0.0	11	20.4	0	0.0	6	7.7	0	0	10	9.9	0	0.0	27	11.6
	G6	0	0.0	0	0.0	82	95.3	52	66.7	0	0	0	0	82	33.1	52	22.3
Sex	Boy	35	60.3	32	59.3	47	54.7	43	55.1	55	52.9	56	54.4	137	55.2	131	55.7
	Girl	23	39.7	22	40.7	39	45.3	35	44.9	49	47.1	47	45.6	111	44.8	104	44.3
Age group	9 and younger	28	48.3	19	35.2	16	18.6	7	9.0	30	28.8	23	22.3	74	29.8	49	20.9
	10 to 13	26	44.8	25	46.3	25	29.1	26	33.3	61	58.8	59	57.3	112	45.2	110	46.8
	14 to 19	4	6.9	10	18.5	42	48.8	43	55.1	13	12.5	20	19.4	59	23.8	73	31.1
	20 and older	0	0	0	0	3	3.5	2	2.6	0	0	1	1	3	1.2	3	1.3
Total		**58**	**100**	**54**	**100**	**86**	**100**	**78**	**100**	**104**	**100**	**103**	**100**	**248**	**100**	**235**	**100**

Blind / Low Vision Zero Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Overall Score	**0.05**	**0.00**	**0.08**	**0.22**	**0.13**	**0.19**	**0.24**	**0.15**	**0.21**	**0.50**	**0.17**	**0.00**	**0.71**	**0.38**	**0.00**	**0.64**	**0.31**	**0.00**	**0.66**	**0.33**	**0.00**

Subtask		Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
		BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Province	Bagmati	0.05	0.00	0.15	0.21	0.08	0.08	0.26	0.10	0.07	0.47	0.13	0.00	0.70	0.37	0.00	0.60	0.31	0.01	0.63	0.36	0.01
	Gandaki	0.00	0.00		0.50	0.50	1.00	0.50	0.50	1.00	0.50	0.50	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
	Karnali	0.00	0.00		0.00	0.00		0.00	0.00		0.38	0.00	0.05	0.50	0.00	0.02	0.50	0.00	0.02	0.50	0.00	0.02
	Madesh	0.20	0.00	0.32	0.60	0.60	1.00	0.40	0.60	0.56	1.00	0.60	0.12	1.00	0.80	0.32	1.00	0.60	0.12	1.00	0.40	0.03
	n	58	53		58	54		58	54		58	54		58	50		58	54		58	54	
Grade	ECD	0.15	0.00	0.07	0.40	0.38	0.93	0.60	0.38	0.23	0.85	0.46	0.02	1.00	0.75	0.06	1.00	0.77	0.06	1.00	0.92	0.31
	G1	0.00	0.00		0.29	0.14	0.40	0.12	0.14	0.87	0.53	0.14	0.05	0.82	0.17	0.00	0.71	0.29	0.05	0.76	0.29	0.03
	G2	0.00	0.00		0.00	0.07	0.32	0.00	0.14	0.15	0.33	0.14	0.32	0.67	0.50	0.44	0.56	0.21	0.11	0.56	0.14	0.05
	G3	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.08	0.14	0.71	0.00	0.11	0.31	0.00	0.11	0.31
	G4		0.00			0.00			0.00			0.00			0.09			0.09			0.09	
	G6																					
	n																					
Sex	Boy	0.06	0.00	0.15	0.23	0.13	0.27	0.26	0.13	0.17	0.51	0.13	0.00	0.74	0.26	0.00	0.66	0.25	0.00	0.69	0.31	0.00
	Girl	0.04	0.00	0.32	0.22	0.14	0.48	0.22	0.18	0.77	0.48	0.23	0.08	0.65	0.58	0.63	0.61	0.41	0.18	0.61	0.36	0.10
	n	58	53		58	54		58	54		58	54		58	50		58	54		58	54	
Age group	9 and younger	0.11	0.00	0.08	0.25	0.21	0.75	0.43	0.21	0.11	0.68	0.26	0.00	0.86	0.44	0.00	0.79	0.47	0.03	0.82	0.58	0.08
	10 to 13	0.00	0.00		0.19	0.12	0.48	0.08	0.12	0.61	0.31	0.12	0.10	0.58	0.36	0.14	0.50	0.20	0.02	0.50	0.20	0.02
	14 to 19	0.00	0.00		0.25	0.00	0.29	0.00	0.10	0.33	0.50	0.10	0.17	0.50	0.30	0.52	0.50	0.30	0.52	0.50	0.20	0.32
	20 and older																					
	n	58	53		58	54		58	54		58	54		58	50		58	54		58	54	

Blind / Low Vision Mean Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
N	58	53		58	54		58	54		58	54		58	50		58	54		58	54	
Overall Score	2.4%	2.7 %	0.11	6.9%	9.5%	0.00	18.2%	26.5%	0.00	14.2%	22.9%	0.00	6.2%	13.1%	0.00	9.4%	16.5%	0.00	1.6%	2.9%	0.00

Subtask		Listening comprehension		Vowel letter identification		Consonant letter identification		Letter matra identification		Nonword identification		Passage reading fluency		Reading comprehension	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		58	53	58	54	58	54	58	54	58	54	58	54	58	50
Province	Bagmati	2.5	2.7	7.0	9.9	19.2	27.8	15.3	23.7	6.5	12.9	10.1	16.5	1.7	2.8
	Gandaki	2.5	2.5	4.5	3.5	9.5	9.0	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
	Karnali	3.0	2.8	9.0	12.9	22.8	35.8	18.9	34.1	10.0	23.6	13.6	27.8	2.5	5.0
	Madesh	1.4	2.3	2.8	3.2	5.8	9.0	0.0	7.6	0.0	3.0	0.0	5.4	0.0	1.0
Grade	ECD	2.2	2.4	3.0	5.1	6.0	14.2	1.3	5.3	0.0	1.1	0.0	1.0	0.0	0.1
	G1	2.5	2.4	6.6	10.6	18.8	29.7	12.7	28.0	3.4	14.8	6.7	19.6	1.1	3.4
	G2	2.7	2.7	9.8	8.9	25.3	25.0	22.2	22.4	8.9	9.6	12.0	18.2	2.1	3.1
	G3	2.8	3.0	11.5	12.1	32.3	33.9	31.8	32.3	18.4	22.9	26.8	23.6	4.8	4.4
	G4		2.7		12.5		35.1		33.6		23.7		25.1		4.3
	G6														
Sex	Boy	2.4	2.6	6.9	10.0	18.9	27.7	12.8	24.3	5.6	14.6	8.8	17.7	1.5	3.0
	Girl	2.5	2.8	6.9	8.7	17.1	24.9	16.3	21.0	7.0	10.8	10.3	14.8	1.8	2.7
Age group	9 and younger	2.3	2.6	5.4	8.3	13.1	23.3	8.6	18.1	3.0	9.1	4.9	11.4	0.8	1.9
	10 to 13	2.7	2.7	8.5	10.0	23.0	27.8	19.8	25.1	9.0	14.0	13.5	19.2	2.4	3.4
	14 to 19	2.0	2.6	6.8	10.6	22.8	29.5	16.8	26.8	10.0	18.5	13.8	19.6	2.3	3.5

Blind / Low Vision Fluency Scores

Subtask	Vowel letter identification			Consonant letter identification			Matra identification			Nonword identification			Passage reading fluency		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
N	58	53		58	54		58	54		58	54		58	50	
Overall Score	**2.4**	**2.7**	**0.11**	**9.7**	**18.3**	**0.01**	**12.1**	**24.0**	**0.00**	**9.6**	**17.9**	**0.01**	**3.6**	**7.6**	**0.02**

Subtask		Vowel letter identification		Consonant letter identification		Matra identification		Nonword identification		Passage reading fluency	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		58	53	58	54	58	54	58	54	58	50
Province	Bagmati	2.5	2.7	10.5	17.6	13.9	24.6	10.9	18.5	4.2	7.7
	Gandaki	2.5	2.5	2.1	2.8	3.2	3.0	2.5	0.8	0.0	0.0
	Karnali	3.0	2.8	12.4	35.0	10.3	38.7	10.5	29.4	4.1	13.0
	Madesh	1.4	2.3	1.3	3.3	3.1	4.3	0.0	2.6	0.0	1.0
Grade	ECD	2.2	2.4	1.9	3.7	2.0	5.2	0.4	1.9	0.0	0.4
	G1	2.5	2.4	9.5	11.1	10.8	14.9	7.5	16.5	1.7	4.9
	G2	2.7	2.7	14.1	17.1	18.8	22.0	18.2	17.5	9.3	5.2
	G3	2.8	3.0	19.6	26.3	25.6	36.8	21.5	23.8	8.3	12.5
	G4		2.7		35.2		44.2		33.6		16.6
Sex	Boy	2.4	2.6	10.6	21.9	12.8	26.5	9.1	20.9	2.9	8.4
	Girl	2.5	2.8	8.3	13.1	11.0	20.3	10.3	13.4	4.8	6.2
Age group	9 and younger	2.3	2.6	7.0	13.2	8.0	16.1	6.9	12.5	3.2	4.4
	10 to 13										
	14 to 19										

Longitudinal Blind / Low Vision Scores

	Baseline	Endline
Listening Comprehension	2.6	2.6
Correct Vowel Per Minute	11.0	16.3
Correct Consonant Per Minute	13.6	21.0
Correct Matra Per Minute	11.1	15.7
Correct Word Per Minute		
Correct Nonword Per Minute	4.2	6.3
Oral Reading Fluency	8.4	15.4
Reading Comprehension Score	1.8	2.7
Reading Comprehension Percent	38.3%	55.3%
Listening Comprehension Zero Score	2.1%	0.0%
Vowel Letter Auto Stop	19.1%	14.9%
Vowel Zero Score	19.1%	14.9%
Consonant Letter Autostop	19.1%	17.0%
Consonant Letter Zero Score	19.1%	17.0%
Matra Letter Autostop	42.6%	19.1%
Matra Letter Zero Score	42.6%	19.1%
Familiar Word Autostop		
Familiar Word Zero Score		
Nonword Autostop	68.1%	44.2%
Nonword Zero Score	68.1%	44.2%
ORF Autostop	59.6%	23.4%
ORF Zero Score	59.6%	34.0%
Reading Comprehension Zero Score	61.7%	36.2%

Cognitive Disability Zero Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Overall Score	**0.38**	**0.36**	**0.82**	**0.54**	**0.58**	**0.65**	**0.39**	**0.46**	**0.35**	**0.86**	**0.81**	**0.38**	**0.80**	**0.77**	**0.63**	**0.88**	**0.83**	**0.37**	**0.89**	**0.83**	**0.26**

Subtask		Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
		BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Province	Bagmati	0.47	0.32	0.14	0.45	0.57	0.22	0.28	0.47	0.05	0.79	0.77	0.81	0.68	0.70	0.82	0.81	0.77	0.62	0.81	0.77	0.62
	Gandaki	0.36	0.50	0.34	0.84	0.73	0.36	0.76	0.59	0.22	0.96	0.91	0.49	0.96	0.86	0.26	1.00	0.95	0.32	1.00	0.95	0.32
	Karnali	0.00	0.20	0.31	0.00	0.00		0.00	0.00		1.00	0.80	0.31	1.00	1.00		1.00	1.00		1.00	1.00	
	Madesh	0.17	0.25	0.77	0.67	0.50	0.63	0.17	0.25	0.77	0.83	0.75	0.77	0.83	0.75	0.77	0.83	0.75	0.77	1.00	0.75	0.30
	n	85	78		85	78		85	78		85	78		85	78		85	78		85	78	
Grade	ECD	1.00	0.50	0.06	0.00	0.50	0.06	0.00	0.33	0.16	1.00	0.83	0.35	1.00	0.83	0.35	1.00	0.83	0.35	1.00	0.83	0.35
	G1	1.00	0.00		0.50	0.29	0.62	0.50	0.29	0.62	1.00	0.86	0.34	1.00	0.86	0.34	1.00	1.00		1.00	1.00	
	G2	0.00	0.50	0.37	0.00	0.50	0.37	0.00	0.50	0.37	1.00	1.00		0.00	0.50	0.37	1.00	1.00		1.00	1.00	
	G3		0.40			0.60			0.60			0.80			0.80			1.00			1.00	
	G4		0.33			0.67			0.33			0.67			0.50			0.67			0.67	
	G6	0.36	0.38	0.76	0.56	0.62	0.50	0.40	0.50	0.24	0.85	0.81	0.52	0.80	0.79	0.85	0.88	0.81	0.30	0.89	0.81	0.21
	n																					
Sex	Boy	0.41	0.30	0.28	0.63	0.56	0.49	0.39	0.44	0.63	0.87	0.81	0.48	0.80	0.74	0.50	0.89	0.84	0.46	0.91	0.84	0.28
	Girl	0.33	0.43	0.40	0.44	0.60	0.16	0.38	0.49	0.39	0.85	0.80	0.61	0.79	0.80	0.96	0.87	0.83	0.61	0.87	0.83	0.61
	n	85	78		85	78		85	78		85	78		85	78		85	78		85	78	
Age group	9 and younger	0.31	0.29	0.90	0.56	0.43	0.57	0.38	0.29	0.68	0.94	1.00	0.32	0.88	0.86	0.91	1.00	1.00		1.00	1.00	
	10 to 13	0.33	0.50	0.24	0.50	0.65	0.28	0.42	0.54	0.39	0.92	0.81	0.27	0.83	0.81	0.82	0.92	0.81	0.27	0.96	0.85	0.18
	14 to 19	0.43	0.30	0.23	0.57	0.56	0.90	0.40	0.44	0.73	0.79	0.79	0.96	0.76	0.74	0.85	0.83	0.84	0.96	0.83	0.81	0.82
	20 and older	0.33	0.00	0.33	0.33	0.50	0.76	0.00	0.50	0.27	1.00	0.50	0.27	0.67	0.50	0.76	0.67	0.50	0.76	0.67	0.50	0.76
	n	85	78		85	78		85	78		85	78		85	78		85	78		85	78	

Cognitive Disability Mean Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Familiar word identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
N	85	78		85	78		85	78		85	78		85	78		85	78		85	78	
Overall Score	**0.9**	**1.0**	**0.44**	**2.5**	**2.9**	**0.56**	**9.8**	**10.1**	**0.88**	**2.8**	**3.2**	**0.73**				**2.2**	**2.7**	**0.70**	**0.4**	**0.4**	**0.79**

Subtask		Listening comprehension		Vowel letter identification		Consonant letter identification		Letter matra identification		Nonword identification		Passage reading fluency		Reading comprehension	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		85	78	85	78		85	78		85	78	85	78	85	78
Province	Bagmati	0.8	1.1	3.2	3.0	11.8	9.9	4.2	4.2	6.2	6.0	3.9	3.7	0.7	0.7
	Gandaki	1.0	0.7	1.0	2.2	6.0	8.9	0.8	1.0	0.4	1.2	0.0	0.5	0.0	0.0
	Karnali	1.0	1.2	3.3	5.2	10.9	17.4	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
	Madesh	1.3	1.5	2.2	2.5	8.8	10.5	3.2	5.5	2.0	6.5	1.3	5.3	0.0	0.3
Grade	ECD	0.0	0.5	2.0	4.0	4.0	12.0	0.0	2.5	0.0	2.3	0.0	2.0	0.0	0.2
	G1	0.0	2.1	1.5	2.1	13.0	8.9	0.0	1.1	0.0	1.3	0.0	0.0	0.0	0.0
	G2	2.0	0.5	7.0	2.5	30.0	15.0	0.0	0.0	15.0	2.0	0.0	0.0	0.0	0.0
	G3		1.2		2.0		7.0		1.0		1.0		0.0		0.0
	G4		1.2		3.2		14.5		5.8		7.5		5.7		1.0
	G6	0.9	0.9	2.5	2.9	9.5	9.7	2.9	3.6	3.7	4.9	2.4	3.1	0.4	0.5
Sex	Boy	0.9	1.2	2.2	2.7	10.3	11.0	2.2	3.3	2.8	4.3	1.7	2.5	0.3	0.4
	Girl	0.9	0.8	2.9	3.0	9.2	9.0	3.4	3.1	4.8	4.3	2.9	2.9	0.5	0.5
Age group	9 and younger	0.9	1.0	1.9	3.1	10.2	14.3	1.2	0.0	1.6	0.6	0.0	0.0	0.0	0.0
	10 to 13	1.1	0.8	2.3	2.4	9.1	8.1	1.0	2.1	1.3	2.2	1.0	1.6	0.2	0.2
	14 to 19	0.8	1.1	2.8	3.1	9.7	10.5	4.5	4.0	5.4	5.6	3.5	3.3	0.6	0.6
	20 and older	1.0	1.5	3.0	2.5	15.3	13.0	0.0	10.5	11.0	15.5	6.7	12.0	1.3	2.0

Cognitive Disability Fluency Scores

Subtask	Vowel letter identification			Consonant letter identification			Matra identification			Nonword identification			Passage reading fluency		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
N	85	78		85	78		85	78		85	78		85	78	85
Overall Score	**4.2**	**5.9**	**0.22**	**6.8**	**9.0**	**0.24**	**1.9**	**3.3**	**0.22**				**3.4**	**3.8**	**0.83**

Subtask		Vowel letter identification		Consonant letter identification		Matra identification		Nonword identification		Passage reading fluency	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		85	78	85	78	85	78	85	78	85	78
Province	Bagmati	5.1	6.3	8.9	9.5	3.0	4.7	4.9	6.0	6.0	6.0
	Gandaki	1.1	3.8	2.9	6.5	0.3	0.5	0.1	0.5	0.0	0.2
	Karnali	9.7	9.0	8.0	13.3	0.0	0.4	0.0	0.0	0.0	0.0
	Madesh	3.4	9.3	5.3	11.3	1.4	6.7	0.7	2.7	0.5	2.6
Grade	ECD	2.7	8.2	2.6	12.5	0.0	1.2	0.0	1.0	0.0	0.6
	G1	1.2	3.7	7.2	5.9	0.0	0.4	0.0	0.6	0.0	0.0
	G2	8.6	3.1	28.6	10.7	0.0	0.0	11.7	0.9	0.0	0.0
	G3		2.6		6.5		1.8		1.4		0.0
	G4		7.9		15.8		8.5		11.4		11.4
Sex	Boy	3.4	5.4	6.8	9.9	1.3	3.7	1.4	3.9	0.9	2.9
	Girl	5.2	6.5	6.9	7.8	2.7	2.9	4.5	3.9	6.2	4.9
Age group	9 and younger	4.5	5.0	6.8	9.1	0.4	0.0	1.0	0.3	0.0	0.0
	10 to 13	3.1	5.5	5.6	8.0	0.5	2.3	0.5	1.3	0.3	1.2
	14 to 19	4.8	6.5	7.4	9.4	3.3	3.8	4.3	5.6	5.9	5.3
	20 and older	3.4	2.2	8.5	12.8	0.0	19.1	10.5	13.7	10.8	17.6

Longitudinal Cognitive Disability Scores

	Baseline	Endline
Listening Comprehension	0.8	0.9
Correct Vowel Per Minute	4.3	5.7
Correct Consonant Per Minute	6.5	8.2
Correct Matra Per Minute	2.1	3.4
Correct Word Per Minute	3.0	3.3
Correct Nonword Per Minute		
Oral Reading Fluency	2.8	3.8
Reading Comprehension Score	0.4	0.4
Reading Comprehension Percent	3.8%	7.5%
Listening Comprehension Zero Score	39.6%	39.6%
Vowel Letter Auto Stop	58.5%	58.5%
Vowel Zero Score	58.5%	58.5%
Consonant Letter Autostop	45.3%	47.2%
Consonant Letter Zero Score	45.3%	49.1%
Matra Letter Autostop	86.8%	83.0%
Matra Letter Zero Score	86.8%	81.1%
Familiar Word Autostop	81.1%	77.4%
Familiar Word Zero Score	81.1%	79.2%
Nonword Autostop		
Nonword Zero Score		
ORF Autostop	86.8%	86.8%
ORF Zero Score	86.8%	83.0%
Reading Comprehension Zero Score	88.7%	83.0%

Deaf or Hard of Hearing Zero Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Overall Score	**0.79**	**0.31**	**0.00**	**0.06**	**0.07**	**0.86**	**0.03**	**0.09**	**0.19**	**0.11**	**0.10**	**0.81**	**0.10**	**0.16**	**0.33**	**0.38**	**0.33**	**0.68**	**0.67**	**0.65**	**0.86**

Subtask		Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency			Reading comprehension		
		BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Province	Bagmati	0.79	0.23	0.00	0.02	0.00	0.17	0.01	0.00	0.33	0.04	0.00	0.06	0.05	0.12	0.17	0.18	0.28	0.32	0.41	0.58	0.26
	Gandaki	0.73	0.52	0.25	0.09	0.11	0.88	0.05	0.11	0.57	0.36	0.14	0.12	0.24	0.14	0.46	0.72	0.30	0.02	1.00	0.88	0.06
	Karnali	0.89	0.54	0.14	0.33	0.23	0.66	0.22	0.37	0.52	0.44	0.37	0.77	0.43	0.43	0.99	0.80	0.73	0.78	1.00	0.78	0.15
	Madesh	0.78	0.00	0.00	0.18	0.00	0.07	0.06	0.00	0.32	0.12	0.00	0.15	0.13	0.06	0.49	0.29	0.19	0.63	1.00	0.39	0.00
	n	105	89		104	97		104	99		103	99		91	96		52	94		57	103	
Grade	ECD	0.80	1.00	0.34	0.40	0.00	0.13	0.20	0.00	0.33	0.50	0.00	0.13	0.67	0.00	0.09	0.67	1.00	0.37	1.00	1.00	
	G1	0.92	0.14	0.00	0.10	0.19	0.48	0.06	0.18	0.31	0.14	0.18	0.75	0.13	0.27	0.29	0.88	0.39	0.01	1.00	0.73	0.02
	G2	0.83	0.33	0.00	0.02	0.00	0.33	0.00	0.10	0.29	0.08	0.13	0.62	0.07	0.19	0.31	0.17	0.33	0.25	0.46	0.55	0.63
	G3	0.55	0.35	0.11	0.05	0.09	0.65	0.02	0.09	0.46	0.07	0.09	0.86	0.05	0.16	0.24	0.48	0.29	0.22	0.83	0.52	0.01
	G4		0.49			0.00			0.00			0.00			0.00			0.48			0.88	
	G6	1.00			0.00			0.00			1.00			1.00			1.00			1.00		
	n		0			0			0			0			0			0			1	
Sex	Boy	0.77	0.30	0.00	0.04	0.00	0.06	0.02	0.04	0.65	0.08	0.04	0.39	0.08	0.09	0.89	0.30	0.26	0.71	0.59	0.65	0.71
	Girl	0.80	0.32	0.00	0.09	0.17	0.41	0.05	0.17	0.19	0.16	0.18	0.80	0.14	0.26	0.25	0.47	0.44	0.87	0.79	0.66	0.48
	n	105	89		104	97		104	99		103	99		91	96		52	94		57	103	
Age group	9 and younger	0.83	0.38	0.00	0.14	0.09	0.69	0.07	0.09	0.82	0.18	0.09	0.47	0.25	0.10	0.24	0.60	0.39	0.25	1.00	0.71	0.01
	10 to 13	0.75	0.16	0.00	0.05	0.04	0.80	0.02	0.04	0.65	0.09	0.05	0.37	0.07	0.10	0.60	0.37	0.24	0.33	0.62	0.61	0.95
	14 to 19	0.88	0.62	0.11	0.04	0.13	0.48	0.04	0.24	0.19	0.12	0.24	0.48	0.09	0.38	0.08	0.15	0.53	0.04	0.44	0.73	0.28
	20 and older		1.00			0.00			0.00			0.00			0.00			0.00			0.00	
	n	105	89		104	97		104	99		103	99		91	96		52	94		57	103	

Deaf or Hard of Hearing Mean Scores

Subtask	Listening comprehension			Vowel letter identification			Consonant letter identification			Letter matra identification			Familiar word identification			Passage reading fluency			Reading comprehension		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
Overall Mean	**0.3**	**1.3**	**0.00**	**7.7**	**9.1**	**0.03**	**22.2**	**29.6**	**0.00**	**18.1**	**24.6**	**0.00**				**5.9**	**7.4**	**0.42**	**0.7**	**1.0**	**0.35**

Subtask		Listening comprehension		Vowel letter identification		Consonant letter identification		Letter matra identification		Nonword identification		Passage reading fluency		Reading comprehension	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		85	78	85	78		85	78		85	78	85	78	85	78
Province	Bagmati	0.8	1.1	3.2	3.0	11.8	9.9	4.2	4.2	6.2	6.0	3.9	3.7	0.7	0.7
	Gandaki	1.0	0.7	1.0	2.2	6.0	8.9	0.8	1.0	0.4	1.2	0.0	0.5	0.0	0.0
	Karnali	1.0	1.2	3.3	5.2	10.9	17.4	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
	Madesh	1.3	1.5	2.2	2.5	8.8	10.5	3.2	5.5	2.0	6.5	1.3	5.3	0.0	0.3
Grade	ECD	0.0	0.5	2.0	4.0	4.0	12.0	0.0	2.5	0.0	2.3	0.0	2.0	0.0	0.2
	G1	0.0	2.1	1.5	2.1	13.0	8.9	0.0	1.1	0.0	1.3	0.0	0.0	0.0	0.0
	G2	2.0	0.5	7.0	2.5	30.0	15.0	0.0	0.0	15.0	2.0	0.0	0.0	0.0	0.0
	G3		1.2		2.0		7.0		1.0		1.0		0.0		0.0
	G4		1.2		3.2		14.5		5.8		7.5		5.7		1.0
	G6	0.9	0.9	2.5	2.9	9.5	9.7	2.9	3.6	3.7	4.9	2.4	3.1	0.4	0.5
Sex	Boy	0.9	1.2	2.2	2.7	10.3	11.0	2.2	3.3	2.8	4.3	1.7	2.5	0.3	0.4
	Girl	0.9	0.8	2.9	3.0	9.2	9.0	3.4	3.1	4.8	4.3	2.9	2.9	0.5	0.5
Age group	9 and younger	0.9	1.0	1.9	3.1	10.2	14.3	1.2	0.0	1.6	0.6	0.0	0.0	0.0	0.0
	10 to 13	1.1	0.8	2.3	2.4	9.1	8.1	1.0	2.1	1.3	2.2	1.0	1.6	0.2	0.2
	14 to 19	0.8	1.1	2.8	3.1	9.7	10.5	4.5	4.0	5.4	5.6	3.5	3.3	0.6	0.6
	20 and older	1.0	1.5	3.0	2.5	15.3	13.0	0.0	10.5	11.0	15.5	6.7	12.0	1.3	2.0

Deaf or Hard of Hearing Fluency Scores

Subtask	Vowel letter identification			Consonant letter identification			Letter matra identification			Nonword identification			Passage reading fluency		
	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value	BL	EL	p-value
N	104	97		104	99		103	99		91	96		52	94	
Overall Score	**24.5**	**28.4**	**0.31**	**32.1**	**42.1**	**0.02**	**19.2**	**23.9**	**0.14**				**9.6**	**8.6**	**0.77**

Subtask		Vowel letter identification		Consonant letter identification		Matra identification		Nonword identification		Passage reading fluency	
		BL	EL	BL	EL	BL	EL	BL	EL	BL	EL
N		58	53	58	54	58	54	58	54	58	50
Province	Bagmati	28.4	30.3	36.2	44.1	22.4	28.3	13.4	18.6	14.7	11.0
	Gandaki	8.0	25.1	4.5	39.8	2.2	18.4	0.8	10.2	0.2	4.6
	Karnali	13.9	21.3	27.3	29.5	15.0	15.6	9.5	9.7	4.2	3.5
	Madesh	25.0	34.8	42.9	50.1	22.4	30.2	9.4	21.3	8.9	13.9
Grade	ECD	9.1	19.7	4.0	28.6	0.7	9.1	0.5	1.6	0.4	0.0
	G1	22.4	22.7	31.0	38.7	12.9	20.1	7.9	11.6	0.0	6.3
	G2	30.5	26.2	41.4	40.5	27.0	23.7	15.6	20.8	15.7	11.3
	G3	20.6	31.1	23.9	42.6	17.8	27.5	9.1	17.1	4.6	10.8
	G4		37.4		54.7		28.4		14.7		4.4
	G6	3.0		6.5		0.0		0.0		0.0	
Sex	Boy	24.4	30.4	33.0	43.2	19.8	26.4	12.4	16.3	12.0	9.1
	Girl	24.5	25.7	30.8	40.6	18.4	20.4	8.8	13.9	6.4	7.9
Age group	9 and younger	17.1	27.6	22.4	41.2	11.2	23.0	5.9	16.4	2.2	7.8
	10 to 13	23.7	28.4	31.4	45.7	19.0	25.1	10.5	15.9	9.0	9.5
	14 to 19	36.6	29.0	46.4	34.6	29.4	21.9	18.5	12.8	19.4	7.4
	20 and older		36.7		36.2		13.1		15.9		6.0

Longitudinal Deaf or Hard of Hearing Scores

	Baseline	Endline
Listening Comprehension	0.4	1.3
Correct Vowel Per Minute	20.0	28.4
Correct Consonant Per Minute	25.5	44.6
Correct Matra Per Minute	16.1	26.9
Correct Word Per Minute	8.7	17.6
Correct Nonword Per Minute		
Oral Reading Fluency	5.1	10.3
Reading Comprehension Score	0.4	1.0
Reading Comprehension Percent	2.1%	11.1%
Listening Comprehension Zero Score	68.9%	27.8%
Vowel Letter Auto Stop	8.9%	3.3%
Vowel Zero Score	10.1%	3.6%
Consonant Letter Autostop	7.8%	4.4%
Consonant Letter Zero Score	5.6%	4.7%
Matra Letter Autostop	14.4%	5.6%
Matra Letter Zero Score	14.8%	5.8%
Familiar Word Autostop	25.6%	11.4%
Familiar Word Zero Score	15.2%	10.8%
Nonword Autostop		
Nonword Zero Score		
ORF Autostop	64.4%	27.0%
ORF Zero Score	44.2%	26.8%
Reading Comprehension Zero Score	85.4%	60.0%

Teacher Sample Overview

	Baseline	Endline
Male	44.4%	29.4%
Female	55.6%	70.6%
Disability	81.5%	79.4%
Speak Nepali at home	77.8%	73.5%
Speak NSL at home	14.8%	14.7%

Teacher Survey Item Statistics

Question	Response	Overall Baseline	Overall Endline	Overall p-value
Gender of respondent	Male	44.4	29.4	
	Female	55.6	70.6	
What language do you use most often at home/outside of the classroom?	Bajjika	0.0	0.0	0.89
	Bhojpuri	0.0	2.9	
	Magar	0.0	0.0	
	Maithali	3.7	2.9	
	Nepali	77.8	73.5	
	Nepali Sign Language	14.8	14.7	
	Newari	3.7	2.9	
	Tamang	0.0	0.0	
	Other: _____	0.0	2.9	
How long have you been a teacher?	0 (this is first year teaching)	0.0	0.0	0.37
	1	0.0	0.0	
	2	7.4	5.9	
	3	0.0	0.0	
	4	0.0	2.9	
	5	3.7	8.8	
	6-10	29.6	14.7	
	11-15	0.0	8.8	
	More than 15	59.3	58.8	
How long have you been a teacher at this school?	Less than one year		0.0	
	One year or more		100.0	
	Not sure/Don't know		0.0	
What grades do you teach?	Kinder	29.6	17.6	0.29
	G1	18.5	20.6	0.84
	G2	14.8	20.6	0.56
	G3	40.7	26.5	0.25
	G4	22.2	20.6	0.88
	G5	37.0	52.9	0.22
	G6	29.6	17.6	0.29

Question	Response	Overall Baseline	Overall Endline	Overall p-value
Do you have learners in your classroom with any of the following types of disabilities or difficulties:	Deaf or hard of hearing?	33.3	41.2	0.54
	Blind or low vision?	51.9	41.2	0.42
	Communication or speech disabilities or difficulties?	37.0	44.1	0.58
	Learning or intellectual disabilities or difficulties?	51.9	52.9	0.93
	Physical or mobility disabilities or difficulties?	33.3	29.4	0.75
	Other disabilities or difficulties?	22.2	26.5	0.71
	Learners with multiple disabilities?	44.4	38.2	0.63
Have you ever received training on how to use technologies to support learners with disabilities?	Yes		64.7	
	No		32.4	
	Don't know / no response		2.9	
Have you ever received training on how to accommodate and engage learners with different types of disabilities in your classroom?	Yes		76.5	
	No		23.5	
	Don't know / no response		0.0	
Do you engage with the parents or caregivers of the learners in your classroom?	Yes, often	74.1	79.4	0.20
	Yes, sometimes	22.2	11.8	
	Rarely	0.0	8.8	
	Never	3.7	0.0	
Which best describes the type of class(es) you teach?	Class in a "special school" (segregated)	44.4	26.5	0.15
	Special education or resource class in a mainstream school (integrated)	33.3	23.5	0.41
	Mainstream class with learners with disabilities and without disabilities together (inclusive)	22.2	52.9	0.01
	Don't know / no response	0.0	0.0	
What subjects do you teach?	Nepali reading	77.8	61.8	0.18
	Nepali writing	51.9	55.9	0.76
	Mathematics	55.6	47.1	0.52
	Sciences	44.4	50.0	0.67
	Other: _____	66.7	61.8	0.7

Question	Response	Overall Baseline	Overall Endline	Overall p-value
What is your highest level of academic education?	Some primary	0.0	0.0	0.87
	Primary completed	7.4	2.9	
	Lower secondary completed	0.0	2.9	
	School Leaving Certificate (SLC) or Technical School Leaving Certificate (TSLC)	14.8	11.8	
	+2 (Proficiency Certificate, HSEB Migration Certificate)	18.5	20.6	
	Bachelor's degree completed	44.4	41.2	
	Master's degree completed	14.8	20.6	
	PhD completed	0.0	0.0	
	Other: _____	0.0	0.0	
	Don't know/no response	0.0	0.0	
During your pre-service training, did you receive any training on how to teach reading to early grade learners?	Yes	55.6	52.9	0.84
	No	44.4	47.1	
	Don't know / no response	0.0	0.0	
During your pre-service training, did you receive any training on how to teach reading to early grade learners with disabilities?	Yes	51.9	47.1	0.46
	No	44.4	52.9	
	Don't know / no response	3.7	0.0	
Have you ever received any in-service training on how to teach reading to early grade learners?	Yes	22.2	17.6	0.62
	No	77.8	79.4	
	Don't know / no response	0.0	2.9	
When was the last time you received in-service training on how to teach reading to early grade learners?	Within past year	9.5	51.9	0.01
	1-2 years ago	9.5	18.5	
	3-4 years ago	19.0	0.0	
	5-10 years ago	14.3	11.1	
	More than 10 years ago	42.9	18.5	
	Don't know / no response	4.8	0.0	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
Have you ever received any in-service training on how to teach reading to early grade learners with disabilities?	Yes	81.5	73.5	0.46
	No	18.5	26.5	
	Don't know / no response	0.0	0.0	
When was the last time you received in-service training on how to teach reading to early grade learners with disabilities?	Within past year	0.0	64.0	0.00
	1-2 years ago	13.6	16.0	
	3-4 years ago	0.0	0.0	
	5-10 years ago	40.9	0.0	
	More than 10 years ago	45.5	20.0	
	Don't know / no response	0.0	0.0	
Do you consider yourself to have a disability?	Yes	18.5	20.6	0.84
	No	81.5	79.4	
	Don't know / no response	0.0	0.0	
What kind of disability?	Deaf or hard of hearing	20.0	42.9	0.44
	Blind or low vision	80.0	42.9	0.22
	Communication or speech	0.0	0.0	
	Learning or intellectual	0.0	0.0	
	Physical or mobility	0.0	14.3	0.36
	Other:	0.0	0.0	
How would you describe your skills in Nepali Sign Language? Would you say, very good, good, poor, or do not know Nepali Sign Language?	Very good	14.8	11.8	0.05
	Good	18.5	35.3	
	Poor	3.7	11.8	
	Do not know Nepali Sign Language	55.6	20.6	
	Don't know / no response	7.4	20.6	
Have you ever received training or taken formal lessons to learn Nepali Sign Language?	Yes	18.5	29.4	0.09
	No	77.8	52.9	
	Don't know / no response	3.7	17.6	
Have you ever received training on how to teach Nepali Sign Language?	Yes	18.5	23.5	0.17
	No	77.8	58.8	
	Don't know / no response	3.7	17.6	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
How would you describe your skills in reading braille? Would you say, very good, good, poor, or do not know how to read braille?	Very good	22.2	11.8	0.02
	Good	14.8	8.8	
	Poor	0.0	23.5	
	Do not know how to read braille	44.4	20.6	
	Don't know / no response	18.5	35.3	
Have you ever received training or taken formal lessons to learn to read braille?	Yes	29.6	14.7	0.14
	No	59.3	55.9	
	Don't know / no response	11.1	29.4	
Have you ever received training on how to teach learners to read braille?	Yes	29.6	8.8	0.05
	No	59.3	61.8	
	Don't know / no response	11.1	29.4	
Do you have access to a computer or tablet at home or at school?	Yes, at home	11.1	0.0	0.08
	Yes, at school	25.9	35.3	
	Yes, at home and at school	51.9	64.7	
	No	7.4	0.0	
	Don't know / no response	3.7	0.0	
During the last three months, how often did you use a computer or tablet at school? That is, for preparation or for in-class instruction.	Almost every day	38.1	38.2	0.00
	At least once a week	9.5	55.9	
	Less than once a week	28.6	5.9	
	Not at all	23.8	0.0	
How would you describe your level of comfort in using a computer or tablet?	Very comfortable	11.1	20.6	0.06
	Comfortable	51.9	67.6	
	Not very comfortable	22.2	11.8	
	Not at all comfortable	14.8	0.0	
Do you have access to a mobile feature phone at home or at school?	Yes, at home	25.9	0.0	0.01
	Yes, at school	7.4	5.9	
	Yes, at home and at school	66.7	82.4	
	No	0.0	11.8	
	Don't know / no response	0.0	0.0	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
During the last three months, how often did you use a mobile feature phone at school? That is, for preparation, for in-class instruction, or with students.	Almost every day	45.0	63.3	0.01
	At least once a week	20.0	33.3	
	Less than once a week	35.0	0.0	
	Not at all	0.0	3.3	
How would you describe your level of comfort in using a mobile phone?	Very comfortable	48.1	50.0	0.97
	Comfortable	44.4	41.2	
	Not very comfortable	3.7	2.9	
	Not at all comfortable	3.7	5.9	
Do you have access to a smart phone at home or at school?	Yes, at home	37.0	23.5	0.17
	Yes, at school	0.0	14.7	
	Yes, at home and at school	55.6	52.9	
	No	7.4	8.8	
	Don't know / no response	0.0	0.0	
During the last three months, how often did you use a smart phone at school? That is, for preparation, for in-class instruction, or with students.	Almost every day	40.0	65.2	0.03
	At least once a week	20.0	26.1	
	Less than once a week	33.3	0.0	
	Not at all	6.7	8.7	
How would you describe your level of comfort in using a smart phone?	Very comfortable	48.1	44.1	0.78
	Comfortable	37.0	47.1	
	Not very comfortable	7.4	5.9	
	Not at all comfortable	7.4	2.9	
Do you have access to the internet at home or at school?	Yes, at home	11.1	0.0	0.10
	Yes, at school	7.4	5.9	
	Yes, at home and at school	70.4	91.2	
	No	11.1	2.9	
	Don't know / no response	0.0	0.0	
During the last three months, how often did you use the internet at school? That is, for preparation, for in-class instruction, or with students.	Almost every day	47.6	72.7	0.06
	At least once a week	19.0	21.2	
	Less than once a week	23.8	3.0	
	Not at all	9.5	3.0	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
How would you describe your level of comfort in using the internet?	Very comfortable	37.0	44.1	0.15
	Comfortable	48.1	55.9	
	Not very comfortable	7.4	0.0	
	Not at all comfortable	7.4	0.0	
I know how to use varied or differentiated learning activities to engage a diverse range of learners.	Strongly agree	22.2	8.8	0.24
	Agree	74.1	88.2	
	Disagree	0.0	0.0	
	Strongly disagree	3.7	0.0	
	Don't know / no response	0.0	2.9	
I know different strategies to motivate and engage a diverse range of learners.	Strongly agree	7.4		
	Agree	70.4		
	Disagree	0.0		
	Strongly disagree	3.7		
	Don't know / no response	18.5		
I give my learners different types of opportunities to express what they learn.	Strongly agree	44.4	29.4	0.31
	Agree	51.9	67.6	
	Disagree	0.0	0.0	
	Strongly disagree	3.7	0.0	
	Don't know / no response	0.0	2.9	
I believe that it is important to present information to learners in a variety of ways.	Strongly agree	33.3	26.5	0.49
	Agree	63.0	70.6	
	Disagree	0.0	0.0	
	Strongly disagree	3.7	0.0	
	Don't know / no response	0.0	2.9	
I believe that it is important to allow learners to express what they know in a variety of ways.	Strongly agree	40.7	32.4	0.26
	Agree	51.9	64.7	
	Disagree	7.4	0.0	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	2.9	
I believe that it is important to motivate and engage learners in a variety of ways.	Strongly agree	44.4	35.3	0.06
	Agree	40.7	61.8	
	Disagree	14.8	0.0	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	2.9	
I can use a variety of assessment strategies for my learners.	Strongly agree	40.7	26.5	0.08
	Agree	48.1	70.6	
	Disagree	11.1	0.0	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	2.9	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
I can provide an alternative explanation or example when learners are confused.	Strongly agree	40.7	26.5	0.16
	Agree	51.9	70.6	
	Disagree	7.4	0.0	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	2.9	
Have you heard of an IEP before?	Yes	48.1	82.4	0.01
	No	37.0	17.6	
	Don't know / no response	14.8	0.0	
Have you ever received training on how to use an IEP with your learners (through the LEARN project)?	Yes	30.8	82.1	0.00
	No	61.5	17.9	
	Don't know / no response	7.7	0.0	
Have you ever used an IEP with any of your learners?	Yes	61.5	64.3	0.33
	No	30.8	35.7	
	Don't know / no response	7.7	0.0	
An IEP helps me understand the needs of my learners.	Strongly agree	55.6	28.6	0.31
	Agree	44.4	67.9	
	Disagree	0.0	3.6	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	0.0	
The work it takes to create IEPs for my learners outweighs the benefits.	Strongly agree	33.3	14.3	0.46
	Agree	66.7	71.4	
	Disagree	0.0	7.1	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	7.1	
An IEP can help match a learner to different technologies to support their reading.	Strongly agree	44.4	28.6	0.40
	Agree	44.4	67.9	
	Disagree	11.1	3.6	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	0.0	
Using technologies can help a diverse range of learners learn to read.	Strongly agree	37.0	32.1	0.59
	Agree	63.0	64.3	
	Disagree	0.0	3.6	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	0.0	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
Having learners use technologies in the classroom is more of a distraction than a benefit.	Strongly agree	11.1	7.1	0.35
	Agree	29.6	14.3	
	Disagree	40.7	64.3	
	Strongly disagree	18.5	14.3	
	Don't know / no response	0.0	0.0	
I know how to match different technologies to learners with different needs.	Strongly agree	18.5	21.4	0.34
	Agree	74.1	78.6	
	Disagree	7.4	0.0	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	0.0	
I am confident using technologies in my classroom.	Strongly agree	22.2	25.0	0.58
	Agree	77.8	71.4	
	Disagree	0.0	3.6	
	Strongly disagree	0.0	0.0	
	Don't know / no response	0.0	0.0	
Which LEARN training did you participate in?	3 Days Teachers Training on Universal Design for Learning (UDL)		73.5	
	2 Days Refresher Teachers Training on Universal Design for Learning (UDL)		64.7	
	10 Days NSL Training		17.6	
	Other		0.0	
	None of the above		8.8	
How satisfied were you with the content of these trainings?	Very satisfied		48.4	
	Moderately satisfied		48.4	
	Moderately dissatisfied		3.2	
	Very dissatisfied		0.0	
	Not sure / Don't know		0.0	
Was there anything about the training that could have been improved?	Yes		29.0	
	No		67.7	
	Don't know / no response		3.2	
The LEARN trainings I attended provided me with skills that meet my specific needs as a teacher.	Strongly agree		19.4	
	Agree		61.3	
	Disagree		16.1	
	Strongly disagree		0.0	
	Don't know / no response		3.2	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
The LEARN trainings I attended provided me with resources that meet my specific needs as a teacher.	Strongly agree		19.4	
	Agree		71.0	
	Disagree		3.2	
	Strongly disagree		0.0	
	Don't know / no response		6.5	
The LEARN trainings I attended provided me with other support that meet my specific needs as a teacher.	Strongly agree		12.9	
	Agree		51.6	
	Disagree		32.3	
	Strongly disagree		0.0	
	Don't know / no response		3.2	
What kinds of EdTech did you learn about in the LEARN trainings you participated in?	LEARN EdTech Toolkit		0.0	
	Learning videos		88.2	
	Sign language books		35.3	
	Teacher Resources		55.9	
	Things you can make		55.9	
	Laptop / Computer		50.0	
	Tablet		52.9	
	EGR materials		2.9	
	None of the above		5.9	
Did you install any of the following mobile applications on your own personal mobile device, without any assistance from LEARN project staff?	Beautiful Minds app		5.9	
	Feed the Monster app		17.6	
	Read Along		11.8	
	Fredium		2.9	
	ACNS Sunaulo Bihani		2.9	
	Bloom Reader		8.8	
	Deaf Note		8.8	
	E-Pustakalaya		23.5	
	Hamro Ramailo Katha		38.2	
	Let's Read TAF		0.0	
	Mero Sanket		26.5	
	Nepali Barnamala		50.0	
	Ramailo Padhai		35.3	
	Tablet		23.5	
	Typoscope		14.7	
	EVO Daisy Player		17.6	
	None of the above		0.0	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
In the past five days of school, what kinds of EdTech have you used with your learners?	LEARN EdTech Toolkit		0.0	
	Learning videos		76.5	
	Sign language books		32.4	
	Teacher Resources		32.4	
	Things you can make		29.4	
	Laptop / Computer		26.5	
	Tablet		35.3	
	EGR materials		0.0	
	Beautiful Minds app		5.9	
	Feed the Monster app		8.8	
	Reading Along		5.9	
	Fredium		0.0	
	ACNS Sunaulo Bihani		2.9	
	Bloom Reader		0.0	
	Deaf Note		8.8	
	E-Pustakalaya		26.5	
	Hamro Ramailo Katha		41.2	
	Let's Read TAF		2.9	
	Mero Sanket		32.4	
	Nepali Barnamala		38.2	
	Ramailo Padhai		29.4	
	Tablet		23.5	
	Tyroscope		2.9	
	EVO Daisy Player		0.0	
	None of the above		2.9	
In the last five days of school, how often did you use any of these EdTech solutions in your classrooms and with your learners?	Daily		30.3	
	Three to Four times		33.3	
	Once or twice		33.3	
	Never		0.0	
	Don't know / no response		3.0	
I could easily refer to and access the EdTech toolkit provided by LEARN.	Strongly agree		8.8	
	Agree		85.3	
	Disagree		0.0	
	Strongly disagree		0.0	
	Don't know/no response		5.9	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
I could easily use the EdTech solutions to present materials to learners.	Strongly agree		17.6	
	Agree		76.5	
	Disagree		2.9	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
I could easily integrate the EdTech solutions into my lessons.	Strongly agree		5.9	
	Agree		85.3	
	Disagree		5.9	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
The EdTech solutions were accessible for learner use.	Strongly agree		17.6	
	Agree		73.5	
	Disagree		5.9	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
My learners could use the EdTech solutions to learn basic reading skills.	Strongly agree		11.8	
	Agree		73.5	
	Disagree		11.8	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
My learners could use the EdTech solutions to enhance their problem solving skills.	Strongly agree		11.8	
	Agree		73.5	
	Disagree		11.8	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
My learners could use the EdTech solutions to present their learnings.	Strongly agree		5.9	
	Agree		67.6	
	Disagree		23.5	
	Strongly disagree		0.0	
	Don't know/no response		2.9	
How satisfied were you with the EdTech solutions you learned about through the LEARN training?	Very satisfied		89.5	
	Moderately satisfied		0.0	
	Moderately dissatisfied		0.0	
	Very dissatisfied		0.0	
	Not sure/Don't know		10.5	

Question	Response	Overall Baseline	Overall Endline	Overall p-value
In the last five days of school, in what kinds of lessons did you use the previous strategies mentioned with learners in your class?	Nepali reading		82.4	
	Nepali writing		70.6	
	Mathematics		41.2	
	Sciences		29.4	
	Other		47.1	
The process of using IEPs to match technologies to learners' needs could be improved.	Strongly agree		14.3	
	Agree		60.7	
	Disagree		25.0	
	Strongly disagree		0.0	
	Don't know/no response		0.0	

Appendix H
Scalability Assessment Tool

STS built upon previous scalability work conducted during ACR GCD's 2014 Grant Competition to develop a scalability assessment tool (SAT) for the 2020 Grant Competition. The 2020 SAT is a combination of quantitative measures and qualitative reflections, based in a self-assessment, and grounded in current literature. The SAT requires that awardees critically examine the maturity of their solutions, intended pathway for scale, and scalability-enabling conditions across five dimensions: effectiveness; equitability; market demand; financial sustainability; and transferability. LEARN completed the SAT self-assessment at both baseline and endline. Below are the LEARN project's completed baseline and endline SAT.

Scalability Assessment Tool - Baseline

All Children Reading: A Grand Challenge for Development

Organization	World Education Inc.
Solution name	LEARN Solution
Description of the solution[35] to be scaled	The LEARN solution represents the holistic package of UDL Matrix, Tech Toolkit, and Teacher Training to support UDL-based and ICT-supported inclusive literacy learning.
Description of target population	For purposes of this Scalability Assessment, the primary target population is teachers, including teachers in Special Schools and Resource Classes. Ultimately, however, the project targets parents and children—especially, but not solely, children with disabilities.
Date completed	30 July 2021

35 The solution may be a specific EdTech product–hardware and software–that they expect to scale following the end of ACR GCD Round 3 (2020 Competition), or it may be an intervention that includes one or more EdTech products, activities, and components.

Introduction

At what scaling stage would you currently rate your solution?[36] (select one)

- [x] **Proof of concept: When the intellectual concept behind a solution is field-tested to gain an early, "real world" assessment of its potential**
- [ ] Transition to scale: When solutions that have demonstrated small-scale success develop their model and attract partners to fill gaps in their capacity to scale
- [ ] Scaling: When a solution is in the process of replicating or adapting across large geographies or populations for transformational impact
- [ ] Sustainable scale: When a solution has wide-scale adoption or operation at the desired level of exponential growth and is sustained by an ecosystem of actors

Do you have a plan for scaling up your model? (select one)

- [ ] Yes, a mature plan
- [x] **Yes, an initial plan**
- [ ] No, no plan

What is the ultimate level of scale-up you are hoping to achieve?

- [ ] Across multiple sites within a region
- [ ] Across a local region or province
- [ ] Across a large jurisdiction or state
- [x] **Across a nation or country**
- [ ] Other :

What type of scale-up do you expect to pursue?[37] (select one)

- [ ] Vertical: Involves introducing a solution simultaneously across a whole system; results in change through policy, regulation, financing, political, or budgetary systems
- [x] **Horizontal: Involves expansion and replication; introduces a solution across different sites or groups in a phased manner, often beginning with a pilot program, followed by stepwise expansion, and learning lessons to refine further expansion**
- [ ] Diversification: Involves testing and adding a new solution to one that is in the process of being scaled; typically pursued when new needs are identified
- [ ] Spontaneous: May occur from individual to individual, community to community, or one service setting to another; most likely occurs when a solution addresses a clearly felt need or when a pivotal event draws attention to a need

Note: We anticipate that all types of scaling will occur and the project is prepared to support all types, but horizontal scaling is likely to be most prevalent.

36 International Development Innovation Alliance (2017)
37 World Health Organization & ExpandNet (2010), Milat et al. (2020)

1. Effectiveness	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
1a. Is there compelling evidence (from the literature or elsewhere) to indicate that your solution is effective in addressing reading, language, and learning needs in the target population?		1				
1b. Is your solution's impact visible and tangible to casual observation?	0					
1c. Is there a clear emotional appeal to your solution's impact?			2			
1d. Is there evidence that the benefits of your solution exceeded its costs?		1				
1e. Is there evidence that your solution's unit cost per beneficiary will be maintained or reduced if scaled?	0					
Effectiveness subtotal	4					

Please describe the rationale and provide evidence for your **effectiveness** ratings:

1a. There is some compelling evidence for UDL and ICT-supported UDL from high-income countries (see, for example: USAID Literacy for All Toolkit; USAID Using Information Communication Technologies to Implement Universal Design for Learning; resources from CAST, etc.), but such a holistic approach has not been tried in low-income countries (to the knowledge of the project team and IDP). There is some evidence for some of the ICT resources and digital content, but there is little to no evidence that specifically focuses on their impact on children with disabilities in Nepal.

1b. Impact will be visible and tangible after the implementation, but is not yet.

1c. There is emotional appeal as Government, teachers, parents, and children are interested in using ICTs and improving support for children with disabilities.

1d. No evidence for UDL matrix in Nepal

1e. No evidence for UDL matrix in Nepal

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

2. Equitability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
2a. Does your solution benefit, or intend to benefit, individuals equitably regardless of gender?				3		
2b. Does your solution benefit, or intend to benefit, your target populations equitably regardless of sociocultural contexts?[38]			2			
2c. Can your solution be accessed equitably by individuals regardless of disability status?	0					
2d. Does your solution benefit, or intend to benefit, individuals equitably regardless of disability status?			2			
Equitability subtotal	7					

Please describe the rationale and provide evidence for your **equitability** ratings:

2a. Yes, the LEARN solution will benefit students equitably, regardless of gender.

2b. Yes, by design, the LEARN solution intends to benefit students in a variety of contexts representing sociocultural diversity on a variety of dimensions including: language, rural/urban, high- / low-resource communities, caste, religion, and ethnicity. The project will reach different provinces, different ecological belts (from Terai to Hilly regions) and diverse socio economic contexts.

2c. The holistic solution is intended to address the needs of all children and all types of disability. The strategies of the UDL matrix will address all individuals; however, each individual technology might not be accessible for everyone. In addition, the solution may not fully meet the needs of students with multiple, severe disabilities and high support needs.

2d. The solution will cover all kinds of disability along with struggling learners of mainstream schools (project covered schools).

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

38 Sociocultural context means the immediate physical and social settings in which people live. Examples include rural versus urban; high income versus low income; and different geographic or cultural locations.

3. Market demand	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
3a. Is there evidence of actual and projected user demand for your solution?		1				
3b. Does your solution address an issue that is high on the policy agenda of relevant stakeholders, including national or local governments, multilateral organizations, or national or international NGOs?			2			
Market demand subtotal	3					

Please describe the rationale and provide evidence for your **market demand** ratings:

3a. Teachers, parents, and children all indicate demand for ICTs. However, because the holistic LEARN solution is under development, there is not demand for the specific solution as defined here.

3b. There is documented need for teacher training on inclusion. (See LEARN Needs Assessment.) In addition, GoN is developing new inclusive education policy (Inclusive Education policy, School Sector Reform plan and Education strategy) which further outlines GoN priority for increased provision of inclusive education. GoN also has documented priority to support learning via ICTs.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

4. Financial sustainability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
4a. Does your solution have a credible plan for financial sustainability?		1				
4b. Is the level of resourcing required to implement your solution at scale sustainable?			2			
4c. Is the problem being addressed by your solution identified as important by funding agencies?		1				
4d. Will scaling your solution be strategically useful to funders or funding agencies?			2			
Financial sustainability subtotal	6					

Please describe the rationale and provide evidence for your **financial sustainability** ratings:

4a. The LEARN solution has a plan for financial sustainability that is based on past experience of successfully scaling approaches to teacher training, pedagogy, and new educational concepts. The plan relies primarily on existing structures including federal Government, local government, OPDs, and parents. Scaling the LEARN solution does not depend on scaling specific ICTs or access to ICTs. One challenge, however, is that the economic impacts of the Covid-19 pandemic are stretching budgets for both individuals and government bodies.

4b. Yes, as described above, the LEARN Solution is intended to embed within existing structures, processes, policies, and practices. If the project can bring the solution to the intended reasonable scale and uptake within the short project duration, it will have sufficient momentum to continue scaling sustainably.

4c. Yes, inclusive education is a priority for GoN and a number of donors (e.g. UNICEF, World Bank, USAID), INGOs, NGOs, and OPDs in Nepal. GoN policies and the work of the multi-stakeholder Inclusive Education Technical Working Group are evidence of this.

4d. Yes, the solution aligns with the strategic direction to funders and funding agencies.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

5. Transferability sustainability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
5a. How technically sophisticated are the products, components, and/or activities of your solution?		1				
5b. Can the products, components, and/or activities of your solution be easily added to existing systems?		1				
5c. Do you expect that the products, components, and/or activities of the scaled-up solution will be as effective in pre-scale implementation?		1				
5d. If the products, components, and/or activities of your solution will be changed or adapted during scale-up, do you expect that the solution will be as or more effective in addressing the problem in the target population?			2			
5e. Is your solution implementable at scale within your organization's existing infrastructure?			2			
5f. Are the infrastructure requirements of your solution feasible for scale-up by other organizations?				3		
Transferability sustainability subtotal	10					

Please describe the rationale and provide evidence for your **transferability** ratings:

5a. The solution incorporates both high-tech and low-tech supports and focuses on UDL principles. It may be complex for some teachers with limited experience and resources.

5b. Yes, government can add products, components, and/or activities of our solution in their existing system. Products like UDL matrix, Teachers' Training Manual etc. are intended to be added into the existing systems after continuous testing and obtaining successful results. Development will be based on GoN teacher training policies, priorities, inputs, etc. Schools, teachers, and parents will be encouraged to access resources on existing devices.

5c. The challenges that occur during the pre-scale phase will be overcome and the gaps will be fulfilled during the scale up phase.

5d. The LEARN solution is designed to be flexible to allow for micro-contextualization given Nepal's heterogeneity of contexts and designed to incorporate new ICTs as needed, available, and relevant.

5e. From a technology perspective, implementation at scale may be supported by our organization (World Education) but does not require World Education support, as there is no proprietary technology, no hosting, no app, or website to be maintained. World Education currently implements a number of other early grade learning projects and has close relationships with key GoN stakeholders and can support scale up during and after the project through those channels.

5f. Yes. As above, there is no technology infrastructure required for a particular organization to scale. Other organizations (e.g. INGOs, OPDs will be able to replicate and support scale up in the same way other World Education projects can, as noted above.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

Totals

Instructions: Input the subtotal for each dimension. Calculate the dimension score by dividing the dimension subtotal by the total number of points for the dimension. If any questions are marked as N/A, reduce the total number of dimension points by 3 per N/A before calculating the dimension score.

For example, the equitability dimension has 4 questions for a total of 12 points. If an awardee marks *N/A* on one question, *to a small extent* on one question, and *somewhat* on two questions. The dimension subtotal would be 5, the total dimension points would be 9, and the dimension score would be (5/9*100) = 55.6%.

Dimensions	Subtotal	Dimension Score (subtotal/total dimension points * 100%)
1. Effectiveness (out of 15)	4	26.7%
2. Equitability (out of 12)	7	58.3%
3. Market demand (out of 6)	3	50.0%
4. Financial sustainability (out of 12)	6	50.0%
5. Transferability (out of 18)	10	55.5%
SAT Total (out of 63)	30	47.6%

Reflection

Instructions: Using the average scores by dimension, reflect upon areas of strength and areas for improvement. Describe what needs to be done to strengthen the scalability of your solution, including specific actions that should be taken. Also describe the type of technical assistance that ACR GCD could provide to help strengthen the scalability of your solution.

Effectiveness:

Limited evidence is an area of improvement for LEARN. UDL as a concept is relatively new in Nepal, although many of the principles have been embraced under other names. There is little to no precedent for a holistic approach to ICT-supported UDL such as that of the Matrix approach outlined in USAID's guide and which the project aims to contextualize for Nepal. While there is some evidence for individual technology components, this evidence is relatively weak as it tends to be from either outside Nepal, implementation with children without disabilities, implementation only with children with a particular type of disability, or at very limited scale (and often with a high level of resourcing). EdTech solutions have been implemented in scattered form and effectiveness is contextual.

To strengthen scalability, LEARN should generate evidence for both component ICT solutions and the holistic solution, especially in a variety of contexts.

Equitability:

Equitability is a strength of the LEARN solution. In project design, LEARN placed greater emphasis on creating a solution that will best meet the needs of all children in Nepal, regardless of disability type (or presence), level of resources available, school type, language, etc. As a result, LEARN Solution is intended to address the needs of all children and all types of disability. The strategies of the UDL matrix will address all individuals. The individual technology components might not be accessible for everyone, but the solution as a whole aims to provide options so that there will be some supports for everyone. Areas of improvement for equitability for the LEARN solution mirror those areas in need of targeted attention in education in Nepal more broadly, including: language minorities, poor communities (e.g. remote hills, Terai), etc.

Market demand:

Inclusive Education (IE) and EdTech solutions to address IE issues are always a high priority on the policy agenda of relevant stakeholders in the education sector (paper) but limited in practice. Evidence based-advocacy in regards to the use and effectiveness of EdTech solutions is necessary.

Financial sustainability:

The LEARN Solution is intended to be sustained financially by integrating with existing GoN structures, policies, practices, and plans. At the local level, by working in a few schools in each of a large number of municipalities and districts, the project aims to encourage local governments to replicate across their jurisdictions. In addition, it will be available for other implementers to replicate and incorporate into programming. Cost of and access to ICTs will likely remain a challenge; LEARN aims to therefore provide flexible options that are not dependent on a particular type of ICT.

Transferability:

The UDL matrix, training manual and some technical components can be well scaled up and easily transferred, whereas it can be a bit challenging for some individual EdTech components, depending on the technology required and resources available. The flexibility and teacher-training focus of the LEARN solution are strengths; however, flexibility could potentially prove confusing or result in ineffective adaptation.

Scalability Assessment Tool - Endline

All Children Reading: A Grand Challenge for Development

Organization	World Education Inc.
Solution name	LEARN Solution
Description of the solution[39] to be scaled	The LEARN solution represents the holistic package of UDL Matrix, Tech Toolkit, and Teacher Training to support UDL-based and ICT-supported inclusive literacy learning.
Description of target population	For purposes of this Scalability Assessment, the primary target population is teachers, including teachers in Special Schools and Resource Classes. Ultimately, however, the project targets parents and children—especially, but not solely, children with disabilities.
Date completed	19 May 2023

39 The solution may be a specific EdTech product–hardware and software–that they expect to scale following the end of ACR GCD Round 3 (2020 Competition), or it may be an intervention that includes one or more EdTech products, activities, and components.

Introduction

At what scaling stage would you currently rate your solution?[40] (select one)

- ☐ Proof of concept: When the intellectual concept behind a solution is field-tested to gain an early, "real world" assessment of its potential
- ☐ Transition to scale: When solutions that have demonstrated small-scale success develop their model and attract partners to fill gaps in their capacity to scale
- ☑ **Scaling: When a solution is in the process of replicating or adapting across large geographies or populations for transformational impact**
- ☐ Sustainable scale: When a solution has wide-scale adoption or operation at the desired level of exponential growth and is sustained by an ecosystem of actors

Do you have a plan for scaling up your model? (select one)

☐ Yes, a mature plan ☑ **Yes, an initial plan** ☐ No, no plan

What is the ultimate level of scale-up you are hoping to achieve?

- ☐ Across multiple sites within a region
- ☐ Across a local region or province
- ☐ Across a large jurisdiction or state
- ☑ **Across a nation or country**
- ☐ Other :

What type of scale-up do you expect to pursue?[41] (select one)

- ☐ Vertical: Involves introducing a solution simultaneously across a whole system; results in change through policy, regulation, financing, political, or budgetary systems
- ☐ Horizontal: Involves expansion and replication; introduces a solution across different sites or groups in a phased manner, often beginning with a pilot program, followed by stepwise expansion, and learning lessons to refine further expansion
- ☑ **Diversification: Involves testing and adding a new solution to one that is in the process of being scaled; typically pursued when new needs are identified**
- ☐ Spontaneous: May occur from individual to individual, community to community, or one service setting to another; most likely occurs when a solution addresses a clearly felt need or when a pivotal event draws attention to a need

Note: We anticipate that all types of scaling will occur and the project is prepared to support all types, but horizontal scaling is likely to be most prevalent.

40 International Development Innovation Alliance (2017)
41 World Health Organization & ExpandNet (2010), Milat et al. (2020)

1. Effectiveness	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
1a. Is there compelling evidence (from the literature or elsewhere) to indicate that your solution is effective in addressing reading, language, and learning needs in the target population?		1				
1b. Is your solution's impact visible and tangible to casual observation?			2			
1c. Is there a clear emotional appeal to your solution's impact?				3		
1d. Is there evidence that the benefits of your solution exceeded its costs?			2			
1e. Is there evidence that your solution's unit cost per beneficiary will be maintained or reduced if scaled?			2			
Effectiveness subtotal	10					

Please describe the rationale and provide evidence for your **effectiveness** ratings:

1a. Earlier, there was some compelling evidence for Universal Design for Learning (UDL) and ICT-supported UDL from high-income countries only. However towards the end of LEARN there were some compelling changes observed in the teachers' attitudes, their teaching styles, students' participation and engagement.

1b. The impact of the solution is visible and tangible. The teachers are now using the UDL strategies and the technologies (low-tech and high-tech) in their classrooms, and changes in attendance and engagement of the students in the classroom are evident. The teachers shared that the technologies catered to the auditory and visual needs of the children. It is clear through observations in classrooms that the solution provided the teachers multiple ways to teach, and teachers report it accelerated the students' participation and learning.

1c. There is emotional appeal to the solution as the interest of the teachers and head teachers in using technology in the classroom increased and significant efforts were made towards making the classroom technology friendly. They expressed that such support needs to be continued as it has added benefit for the children in their learning, especially for children with disabilities. Furthermore, the local government, provincial government, training centers, and education units also acknowledged the impact of the technology in learning and requested for technical support to continue. The solution also received a significant amount of media coverage in Nepal, demonstrating the emotional appeal of making learning more engaging for children, especially children with disabilities, using ICTs.

1d. No formal cost analysis has been conducted, but the benefits of the solution exceeded its cost because it has been seen that the teachers have been using the technologies: TV screen, tablets, speakers, and low tech materials proactively; and the students have been more engaged and encouraged to come to the school regularly. After seeing the impact, some schools have added more technologies paid for from their own budgets and arranged necessary human and technical resources required. In addition, the solution provides a model for going beyond the traditional approach wherein individual projects develop individual ICT solutions by compiling and distributing already existing free resources. At the same time, they also build capacity among teachers and the education system to use and support these.

1e. Yes, the unit cost of the solution per individual can be somewhat maintained and reduced if the provincial/local government takes ownership of the outcomes and scales up the solution in their respective areas. However, the LEARN solution includes the use of technologies and the cost of the technologies fluctuates frequently which can be difficult if scaled.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

2. Equitability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
2a. Does your solution benefit, or intend to benefit, individuals equitably regardless of gender?				3		
2b. Does your solution benefit, or intend to benefit, your target populations equitably regardless of sociocultural contexts?[42]				3		
2c. Can your solution be accessed equitably by individuals regardless of disability status?				3		
2d. Does your solution benefit, or intend to benefit, individuals equitably regardless of disability status?				3		
Equitability subtotal	12					

Please describe the rationale and provide evidence for your **equitability** ratings:

2a. Yes, the LEARN solution has benefited individuals equitably, regardless of gender. ALL students in the classroom (in different types of schools and classrooms) and the teachers can use and benefit from the solution.

2b. Yes, by design, the LEARN solution intends to benefit students in a variety of contexts representing sociocultural diversity on a variety of dimensions including: language, rural/urban, high-/low-resource communities, caste, religion, and ethnicity. The project has reached different provinces, different ecological belts (from Terai to Hilly regions) and diverse socio-economic contexts.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

42 Sociocultural context means the immediate physical and social settings in which people live. Examples include rural versus urban; high income versus low income; and different geographic or cultural locations.

3. Market demand	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
3a. Is there evidence of actual and projected user demand for your solution?				3		
3b. Does your solution address an issue that is high on the policy agenda of relevant stakeholders, including national or local governments, multilateral organizations, or national or international NGOs?				3		
Market demand subtotal	6					

Please describe the rationale and provide evidence for your **market demand** ratings:

3a. Yes, there is actual user demand for the solution. Demand can be seen by the willingness of schools and local governments to invest or commit to invest to further and expand the project. Accessibility is a major challenge for people with disabilities and there is a significant need and demand for accessibility resources in Nepal. This involves identifying and promoting existing accessibility resources, such as accessible buildings, transportation systems, and assistive technologies, and building on them to improve accessibility across the country. However, a comprehensive survey or study would need to be conducted among people with disabilities to determine the actual and projected user demand.

3b. Yes, the issue of inclusive education has been high on the list of Nepal Government as the constitution states "Right to Education" for all. Similarly, the National Education policy also states about providing free and compulsory education for all addressing all diversity within the children including their interest and needs. The government has been implementing several programs and activities that align to reach the goal of inclusive education. The alignment with Government priorities can be seen in the high level of engagement of local, provincial, and federal government stakeholders in monitoring use of the solution and learning from implementation. The solution also addresses the issue of access to education for children with disabilities, which has been a point of advocacy of several OPDs.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

4. Financial sustainability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
4a. Does your solution have a credible plan for financial sustainability?		1				
4b. Is the level of resourcing required to implement your solution at scale sustainable?			2			
4c. Is the problem being addressed by your solution identified as important by funding agencies?				3		
4d. Will scaling your solution be strategically useful to funders or funding agencies?				3		
Financial sustainability subtotal	9					

Please describe the rationale and provide evidence for your **financial sustainability** ratings:

4a. The solution has been partnering with different other stakeholders. Different stakeholders (OPDs, People with disabilities, GoN,) have committed to scaling the solution so the solution has a credible plan to some extent for financial sustainability. By drawing on free and already existing resources, the solution requires minimal ongoing funding.

4b. The level of resourcing required to implement the solution at scale is sustainable. The solution is designed to be scalable and can be implemented with a variety of resources for different types of disabilities as required.

4c. Yes, the problem being addressed by the solution is a trending area of work for many funding agencies, many of whom have started incorporating UDL and EdTech in their project design as well.

4d. Yes, scaling the solution is likely to be strategic and useful to funding agencies because of the adaptability of the solution and because the solution incorporates and takes forward many previous investments from funding agencies (e.g. apps, digital books, etc.). While the impact data and lessons learned are still being analyzed, it is likely that the solution will have additional evidence for impact, teacher reception, and use cases that will enable funders to invest in a solution with evidence.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

5. Transferability sustainability	Not at all (0)	To a small extent (1)	Somewhat (2)	To a large extent (3)	Not Applicable (N/A)	Justification for N/A
5a. How technically sophisticated are the products, components, and/or activities of your solution?		1				
5b. Can the products, components, and/or activities of your solution be easily added to existing systems?				3		
5c. Do you expect that the products, components, and/or activities of the scaled-up solution will be as effective in pre-scale implementation?				3		
5d. If the products, components, and/or activities of your solution will be changed or adapted during scale-up, do you expect that the solution will be as or more effective in addressing the problem in the target population?			2			
5e. Is your solution implementable at scale within your organization's existing infrastructure?		1				
5f. Are the infrastructure requirements of your solution feasible for scale-up by other organizations?				3		
Transferability sustainability subtotal	13					

Please describe the rationale and provide evidence for your **transferability** ratings:

5a. The products of the solution are not very sophisticated; however, a preliminary understanding of the subject matter is required in order to have optimum use of the product. It requires basic technical skills to use the different tools provided by the solution. The LEARN project has provided TV screens, tablets, Evo E-11 Daisy Player, projectors, laptops, etc. as hardware ed-tech materials and the Ed-Tech Toolkit as software, which serves as the guidebook to use all the digital materials.

5b. Yes, the components, products and the activities can be easily added in any system because it is user-friendly and is easy to integrate. It is also open source so it can be easily adapted as required.

5c. The solution is likely to be effective in scale-up; however, some backstopping is necessary. In addition, as many of the challenges encountered are on the user side with limited digital literacy and ICT familiarity among some teachers, additional support to users would be helpful.

5d. Yes, the components, products, and the activities can be updated, added to, and adapted for additional effectiveness and impact. For example, new digital materials or apps can be added. If the solution is adapted or changed, the solution will be as or more effective in addressing the problem of the targeted population as it will exactly meet the need and demand of the population and will be directly beneficial to them. The adaptation and changes will broaden the solution's scope and will directly benefit the targeted population based on their need and demand.

5e. Yes, to some degree. Other programs have already started embedding our solution, components, and activities in their project design and implementation. The organization plans to integrate these components and activities in the upcoming project and plans.

5f. Yes, as we have focused on freely available existing products which are directly being endorsed by the government, the infrastructure required for this solution is easily feasible for scale-up by other organizations.

Rating

Not at all (0): No empirical or anecdotal evidence exists

To a small extent (1): Empirical or anecdotal evidence exists; evidence does not exist for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

Somewhat (2): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for some—but not all—components of the solution

To a large extent (3): Empirical evidence exists; evidence exists for the context where the solution will be implemented; evidence exists for all components of the solution

Totals

Instructions: Input the subtotal for each dimension. Calculate the dimension score by dividing the dimension subtotal by the total number of points for the dimension. If any questions are marked as N/A, reduce the total number of dimension points by 3 per N/A before calculating the dimension score.

For example, the equitability dimension has 4 questions for a total of 12 points. If an awardee marks *N/A* on one question, *to a small extent* on one question, and *somewhat* on two questions. The dimension subtotal would be 5, the total dimension points would be 9, and the dimension score would be (5/9*100) = 55.6%.

Dimensions	Subtotal	Dimension Score (subtotal/total dimension points * 100%)
1. Effectiveness (out of 15)	10	66.7%
2. Equitability (out of 12)	12	100%
3. Market demand (out of 6)	6	100%
4. Financial sustainability (out of 12)	9	75%
5. Transferability (out of 18)	13	72.2%
SAT Total (out of 63)	50	79.4%

Reflection

Instructions: Using the average scores by dimension, reflect upon areas of strength and areas for improvement. Describe what needs to be done to strengthen the scalability of your solution, including specific actions that should be taken. Also describe the type of technical assistance that ACR GCD could provide to help strengthen the scalability of your solution.

Effectiveness:

Despite limited evidence of the effectiveness of UDL, ICTs for children with disabilities or any similar solution in the context of Nepal or any low-income countries, LEARN has been able to introduce context specific UDL strategies and technologies to support them. The LEARN team (World Education, technical, and implementing partners) and the government bodies received technical support from IDP on UDL and its principles which helped in understanding the concept and figuring out context appropriate strategies. In the course of the project several provincial and local governments have shared a commitment to take the project's outcome forward with necessary technical support from the project team. Similarly, several schools/ Headteachers/SMC have also acknowledged the progress that they have seen after project implementation and are willing to take forward the outcomes.

To strengthen the scalability of the solution, continuous follow up with the provincial and local bodies is necessary and support mechanisms for the schools/teachers need to be identified.

Equitability:

The concept of UDL aims to benefit ALL children in the classroom regardless of the existing diversity. However, many barriers exist—e.g. infrastructural, gaps in technical skills, human resource, attitudinal, etc.—and these create obstacles in ensuring equitability of the solution's benefit. LEARN has created a pool of resources and materials (EdTech toolkit) useful for children with disabilities and ALL children and has tried making it as accessible as possible. There is scope for adding/adapting and changing the resources in the toolkit so that it can be used by a wider population.

Therefore, bringing in several stakeholders together and brainstorming, identifying and creating or outsourcing more low-tech options, context appropriate technologies/materials that could be appropriate for the children with multiple or severe disabilities and ALL children is necessary.

Market demand:

The solution being implemented in Nepal has been able to successfully address the major challenge of accessibility faced by people with disabilities. Due to the significant need and demand for accessibility resources for children with disabilities in Nepal, the solution has sparked discussions around the importance of UDL and the crucial role that technology can play in bridging the existing gap on accessibility.

In order to ensure that the benefits of this solution are sustained over the long term, it is important to foster collaboration with various stakeholders, including government bodies and OPDs. By working together to create mechanisms for carrying forward the existing toolkit, these stakeholders can help to ensure that the solution remains effective and relevant to the needs of people with disabilities in Nepal. This collaborative approach is a vital step towards ensuring the long-term success of the project and meeting the ongoing demand for accessibility resources.

Financial sustainability:

The solution in question has been developed with a focus on utilizing freely available existing resources, thereby providing a solid foundation for financial sustainability of the project. Additionally, both local and central government stakeholders have demonstrated a strong commitment towards the achievement of the project's goals and objectives, ensuring continuity in its implementation. Various funders and donors have already expressed interest in taking ownership and integrating the components of the solution into their own project designs, thereby contributing further towards financial sustainability.

Despite the positive outlook, funding for sustained support and scaling has not yet been secured. However, given the aforementioned commitments and support, the project still stands a good chance of achieving its long-term financial sustainability goals.

Transferability:

The solutions implemented in this project are based on locally available resources and are designed to be easily transferable to other stakeholders. This transferability is made even simpler and more sustainable by the fact that the local governments, as well as the central government, have taken direct ownership of the solution. This ensures that access to the solution is easily granted to other stakeholders who may wish to incorporate these components into their own project designs.

Furthermore, the activities, components, and products associated with this project are all highly adaptable and can be effectively replicated or transferred to different contexts, locations, or organizations, based on specific requirements and needs. This flexibility ensures that the project can be easily tailored to meet the unique demands of different stakeholders, thereby maximizing its impact and effectiveness.

Appendix I

LEARN Monitoring & Evaluation Matrix

Evaluation Question	Associated MEL Indicator	Project tools									Evaluation tools					
		Project monitoring tools / checklist	Attendance records	Classroom observation	Teacher action research diaries	Teacher KAP survey	Training survey	Parent KAP survey	Meeting records	Home visit records	Learner survey	Teacher survey	Parent / caregiver survey	EGRA	Stakeholder KII / FGD	SAT
1. To what extent did learners receive the intended dosage of EdTech exposure based on their IEP?	FA1.A.4															
2. What were learners' levels of satisfaction with the project's different EdTech solutions?	N/A										X					
a. What do learners believe could be improved about the project's EdTech solutions?	N/A										X					
b. How well did the project's EdTech solutions meet learners' specific needs?	FA1.A.5	X										X				
3. To what extent did teachers receive the intended dosage of training?	FA1.B.1 FA1.B.2		X													
4. What were teachers' levels of satisfaction with the project's trainings?	N/A											X				
a. What do teachers believe could be improved about the trainings?	N/A											X				
b. How well did the trainings meet teachers' specific needs?	N/A											X				

Evaluation Question	Associated MEL Indicator	Project tools									Evaluation tools					
		Project monitoring tools / checklist	Attendance records	Classroom observation	Teacher action research diaries	Teacher KAP survey	Training survey	Parent KAP survey	Meeting records	Home visit records	Learner survey	Teacher survey	Parent / caregiver survey	EGRA	Stakeholder KII / FGD	SAT
5. What were teachers' levels of satisfaction with the process of using IEPs to match learners with specialized learning materials using EdTech?	N/A											X				
a. What do teachers believe could be improved about the process?	N/A											X				
b. What were teachers' levels of satisfaction with the project's EdTech solutions?	N/A											X				
c. How well did the project's EdTech solutions meet teachers' specific needs?	N/A											X				
6. To what extent did parents/ caregivers receive the intended dosage of training?	FA1.C.2		X						X	X						
7. What were parents/caregivers' levels of satisfaction with the project's trainings?	N/A												X			
a. What do parents/caregivers believe could be improved about the trainings?	N/A												X			
b. How well did the trainings meet parents/caregivers' specific needs?	N/A												X			
8. To what extent did LEARN teachers change their knowledge, attitudes, and practices on use of EdTech and UDL for learners with disabilities?	N/A					X						X				

Evaluation Question	Associated MEL Indicator	Project tools									Evaluation tools					
		Project monitoring tools / checklist	Attendance records	Classroom observation	Teacher action research diaries	Teacher KAP survey	Training survey	Parent KAP survey	Meeting records	Home visit records	Learner survey	Teacher survey	Parent / caregiver survey	EGRA	Stakeholder KII / FGD	SAT
a. Did teachers have increased knowledge and improved attitudes on how EdTech can support learners' reading and/or language skills development?	FA1.B.7					X	X					X				
b. How and to what extent did teachers utilize project EdTech solutions in their classrooms and with their learners?	FA1.B.3			X	X	X						X				
c. Did teachers have increased knowledge and improved attitudes on how UDL principles can support learners' reading and/or language skills development?	FA1.B.5; FA1.B.6					X	X					X				
d. How and to what extent did teachers utilize UDL principles in their classrooms and with their learners?	FA1.B.4					X	X					X				
9. To what extent did LEARN parents/caregivers change their knowledge, attitudes, and practices on use of EdTech for learners with disabilities?	N/A												X			
a. Did parents/caregivers have increased knowledge and improved attitudes on how EdTech can support learners' reading and/or language skills development?	FA1.C.6												X			
b. Did parents/caregivers have increased knowledge and improved attitudes on how they can support learners' reading and/or language skills development?	FA1.C.4							X					X			

Evaluation Question	Associated MEL Indicator	Project tools									Evaluation tools					
		Project monitoring tools / checklist	Attendance records	Classroom observation	Teacher action research diaries	Teacher KAP survey	Training survey	Parent KAP survey	Meeting records	Home visit records	Learner survey	Teacher survey	Parent / caregiver survey	EGRA	Stakeholder KII / FGD	SAT
c. How and to what extent did parents/caregivers utilize project EdTech solutions with their children at home?	FA1.C.3												X			
10. Did LEARN learners' reading and/or language skills improve from baseline to endline?	FA1.1													X		
a. What contextual factors–including geographic, demographic, and socioeconomic factors–were associated with learners' reading and/or language skills gains?	N/A										X		X	X		
b. To what extent did different EdTech solutions contribute to learners' reading and/or language skills gains?	FA1.A.4										X		X	X		
11. What contextual factors–including geographic, demographic, and socioeconomic factors–were associated with beneficiaries' use or non-use of the project's EdTech solutions?	FA1.A.4										X		X			
12. How scalable is the LEARN model?	N/A														X	X

Appendix J
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