LASER PULSE
Long-term Assistance and Services for Research (LASER)
Partners for University-Led Solutions Engine (PULSE)

Multi-Country Study on Inclusive Education (MCSIE)
Cambodia Interim Report

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About LASER PULSE

LASER (Long-term Assistance and SErvices for Research) PULSE (Partners for University-Led Solutions Engine) is a five-year, $70M program funded through USAID's Innovation, Technology, and Research Hub, that delivers research-driven solutions to field-sourced development challenges in USAID interest countries. A consortium led by Purdue University, with core partners Catholic Relief Services, Indiana University, Makerere University, and the University of Notre Dame, implements the LASER PULSE program through a growing network of 2500+ researchers and development practitioners in 61 countries.

Disclaimer

This report is considered interim in nature as it provides a summary of IDP's evaluative efforts to date. Information and data should be considered for formative feedback and will be further informed by discussions with the implementing partner (IP), mission staff, and USAID Center for Education[1] to ensure validity and reliability of findings.

[1] Center for Education at USAID's Bureau for Development, Democracy and Innovation (DDI/EDU)

Abbreviations

AAM	Assessor Accuracy Measure
ACL	All Children Learning
ACR	All Children Reading
AHC DMAT	Angkor Hospital for Children's Developmental Milestone Assessment Tool
CCWC	Commune Committees for Women and Children
CDCS	Country Development Cooperation Strategy
CDPO	Cambodian Disabled People's Organisation
CRPD	Convention on the Rights of Persons with Disabilities
CSL	Cambodian Sign Language
DDP	Deaf Development Program
DEC	Development Experience Clearinghouse
DOE	District Office of Education
DPO	Disabled Persons' Organization
DQA	Data Quality Assessment
ECED	Early Childhood Education Department
EGR	Early Grade Reading
EGRA	Early Grade Reading Assessment
EQ	Evaluation Question
FGD	Focus Group Discussion
GPE	Global Partnership for Education
IDELA	International Development and Early Learning Assessment
IDP	Inclusive Development Partners
IEP	Individualized Education Plan
IP	Implementing Partner
IR	Intermediate Result
IRB	Institutional Review Board
IRR	Inter-Rater Reliability
KAPE	Kampuchea Action to Promote Education
KII	Key Informant Interviews
KT	Krousar Thmey
LASER PULSE	Long-Term Assistance and SErvices for Research Partners for University-Led Solutions Engine
MCSIE	Multi-Country Study on Inclusive Education
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
MoEYS	Ministry of Education, Youth, and Sport
MoH	Ministry of Health
MoSVY	Ministry of Social Affairs, Veterans, and Youth Rehabilitation
NGO	Non-Government Organization

NISE	National Institute of Special Education
PBS	Positive Behavioral Support
PED	Primary Education Department
PIRS	Performance Indicator Reference Sheets
PITT	Performance Indicator Tracking Table
PMP	Performance Monitoring Plan
POE	Provincial Office of Education
PPP Plan	Public-Private Partnership Plan
PTTC	Provincial Teacher Training College
RTI	Research Triangle Institute
SED	Special Education Department
STEPCam	Strengthening Teacher Education Programmes in Cambodia
TLM	Teacher and Learning Material
TOC	Theory of Change
ToT	Training of Trainers
UDL	Universal Design for Learning
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WFD	World Federation of the Deaf

Table of Contents

Table of Exhibits

1. Executive Summary

The United States Agency for International Development (USAID) has demonstrated a vested commitment to supporting basic education for all learners globally, including learners with disabilities. This commitment is reflected in the 2018 USAID Education Policy (USAID, 2018c) and 2019–2023 Strategy on International Basic Education (USAID, 2018a). In line with this commitment, USAID has funded some projects and programs that support early grade learning for students with and without disabilities, such as those in Cambodia, Malawi, and Nepal.

It is against this backdrop that the Multi-Country Study on Inclusive Education (MCSIE) aims to generate evidence and lessons learned around the implementation of inclusive early grade reading (EGR) programs. The purpose of this report is to describe findings to date in the case of Cambodia. The following executive summary describes the background and purpose of the MCSIE evaluation, the methodology this evaluation utilizes, and some indicative findings to date.

1.1 Evaluation Background and Purpose

USAID is partnering with Inclusive Development Partners (IDP), through the Long-Term Assistance and Services for Research Partners for University-Led Solutions Engine (LASER PULSE) mechanism led by Purdue University, to conduct a three and a half-year evaluation of three USAID inclusive education activities in Cambodia, Malawi, and Nepal. This evaluation effort is referred to as Multi-Country Study on Inclusive Education (MCSIE) and seeks to derive lessons about what is working, for whom, and in what context to sustainably advance teaching and learning outcomes for children with disabilities in the target countries.

In the case of Cambodia, IDP has collaborated with the Cambodia Disabled People's Organisation (CDPO) to evaluate inclusive education within the All Children Reading (ACR) Cambodia project led by Research Triangle Institute (RTI) International. ACR-Cambodia delivers early grade Khmer literacy programming to learners from upper preschool (referred to as "preschool" in this document) to grade 2 in target provinces, with a focus on supporting learners with and without disabilities. Activities undertaken by the project since its inception in 2017 include developing teaching and learning materials (TLMs), including student supplementary books, teachers' guides, and resources adapted for braille and sign language; delivering in-service teacher training workshops and school-based literacy coaching; conducting school-based screenings for learners with hearing or vision difficulties; and monitoring student learning outcomes through early grade reading assessments (EGRAs).

1.2 Methodology

This report is an interim snapshot of ACR-Cambodia's activities related to inclusive education to date. IDP is using a process-evaluation design to develop individual case studies of the inclusive education system in each country and to show how the USAID-funded interventions have affected the respective systems. Five key themes provide a framework for the study and have helped to structure this report: 1) the process of setting up and implementing the project, 2) the identification of learners with disabilities, 3) teacher training models supporting learners with disabilities, 4)

instructional models to improve reading outcomes, and 5) unintended consequences of the project.

To shed light on core themes and findings in Cambodia, IDP conducted an extensive review of 57 project documents and, in collaboration with CDPO, interviewed 42 stakeholders including project staff, government employees, and representatives of disabled persons' organizations (DPOs). Data analysis was performed through qualitative deductive coding, the use of evaluative rubrics and checklists, and descriptive analyses. The methodological approach was subject to limitations including a largely remote data collection process due to COVID-19 and a related inability to triangulate findings with in-person school-based observations or interviews.

1.3 Findings

The following section describes high-level findings around ACR-Cambodia's inclusive education efforts to date, which are broken down according to the five core evaluation questions. The full report offers greater analysis and detail of these abridged summaries.

1.3.1 Process

Overarching finding: ACR-Cambodia has benefitted from strong project management that allows staff to leverage partnerships and communications with government, NGOs, parents, and community members in a highly collaborative manner, as consistent with the requirements of USAID's project solicitation. It has generally done so despite a national environment where limited inclusive education expertise is available, a challenge which the project has confronted head-on. Although the activity's focus on supporting inclusion is consistent with the USAID solicitation, initial findings indicate that at times (and perhaps unintentionally) the activity delivers work that seems more consistent with integration or segregation than inclusion. This approach is reinforced by a monitoring, evaluation, and learning (MEL) plan that makes limited attempts to analyze data related to inclusion.

Additional findings related to Process and linked to the overarching finding above include:

1. Inclusive education was added to the larger ACR project; although an important addition, the inclusive education staff were less embedded in the overall project design than if they had been focal in the initial solicitation.
2. Technical capacity in inclusive education in Cambodia is limited and impacted staff recruitment, hiring, and program implementation.
3. ACR-Cambodia leveraged formal partnerships and additional expertise to meet the inclusive education needs of the project.
4. ACR-Cambodia worked closely and collaboratively with relevant stakeholders, especially the Ministry of Education, Youth, and Sport (MoEYS), to ensure local buy-in and sustainability.
5. ACR-Cambodia's communication with and between staff members and parents has been a strength of the project.
6. ACR-Cambodia leadership reflected an awareness and appreciation of the strong ethical influence they held in decisions related to inclusive education for children with disabilities.

7. ACR-Cambodia's MEL Plan lacks explicit plans for evaluating its inclusive education efforts.
8. Data on inclusive teaching is collected but not systematically analyzed.
9. ACR-Cambodia's research agenda would benefit from studies that consider themes related to inclusive education for children with disabilities.
10. Stakeholders raised concerns regarding the continuation and sustainability of disability-inclusion activities.

1.3.2 Screening and Identification

Overarching finding: The ACR-Cambodia screening activities have yet to rise to a level of effectiveness that significantly expands the reach of inclusive education efforts for learners with hearing or vision difficulties, a challenge of which interviews and reports suggest project staff are already aware. Once learners are screened in schools, the project has reinforced the fact that the broader referral and specialist health service sector in Cambodia lacks preparedness to scale screening efforts. Despite the known limitations around teacher-led screening, ACR-Cambodia's forthcoming writing on these challenges offers significant evidence to a global community of practice interested in learning which approaches to pilot in their own projects, and importantly, which approaches *not* to pilot.

Additional findings related to Identification and linked to the overarching finding above include:

1. Implementation of screening training was bolstered by ACR-Cambodia's overall effective project management.
2. Although stakeholder engagement for screening was robust, the engagement of additional stakeholders in training could have been improved.
3. Screening training could have been improved with more opportunity to practice.
4. Screening training importantly focused heavily on eye/ear health and referral but could have provided further information to teachers about the implications of hearing and vision disabilities on literacy instruction.
5. While the LEA SYMBOLS© chart was appropriate for vision screening, the noise test for hearing screening had limitations.
6. The screening pilot provided useful feedback about limitations of a teacher-led approach, which may be relevant to other projects.
7. Screening, identification, and instruction ideally work in a closed feedback loop. ACR-Cambodia's pilot helped to expose systemic constraints to a scaled approach to screening in Cambodia.

1.3.3 Instructional Training

Overarching finding: ACR-Cambodia delivers a well-coordinated training approach that supports teachers to develop foundational skills teaching the new EGR package. Content development and training delivery appear to engage significant government collaboration and to support technical skill development among trainers. It is less clear, however, the extent to which the limited focus on inclusive education may impact teachers' enactment of inclusive practices in the classroom. While some principles of inclusion are subtly embedded into the reading package

itself, the absence of a continued focus on inclusion throughout training workshops is inconsistent with the project's stated objective of supporting the education of learners with disabilities. There is a risk that the current pre-service curriculum under development may perpetuate these same gaps.

Additional findings related to Training and linked to the overarching finding above include:

1. ACR-Cambodia's training approach is highly collaborative and builds national capacity in EGR.
2. The use of disability simulation is a controversial practice that presents risk with little added benefit.[2]
3. The training session on inclusive education is brief, the content addressed is narrow, and inclusion is not integrated throughout.
4. School-based coaching has helped to embed professional development into ongoing teacher support, but coaching related to inclusive education is unclear.
5. Pre-service training reform is an asset to long-term sustainability and presents opportunities to "do more" with regard to inclusion.

1.3.4 Instructional Approaches

Overarching finding: In formulating an instructional approach that would help support EGR development for Cambodian children with and without disabilities, ACR-Cambodia has taken a strategic approach that focuses heavily on local collaboration. Such collaboration and consultation have made possible the production of a vast suite of teaching and learning materials (TLMs) that are grounded in an evidence base and responsive to the local context. While the widespread distribution and access to such materials is supportive of learners with and without disabilities, more work can be done to embed Universal Design for Learning (UDL) principles into teachers' guides and deepen teachers' mastery of inclusive teaching strategies.

Additional findings related to Instruction and linked to the overarching finding above include:

1. The development of a diverse suite of TLMs served as a strategy to embed scaffolded and explicit evidence-based practice into EGR instructional routines.
2. Teachers' guides explicitly embed inclusive strategies throughout, but the strength of this approach varied between semesters and grades, and inclusion tips were absent in grade 2, semester 2.
3. The project negotiated with government collaborators to slow the pace of instruction in grade 1, a strategy which may enable improvements in learning for students with diverse needs.
4. The project has helped facilitate extensive technical skill development in literacy materials production in Cambodia.
5. Thoughtful political savvy and perceptiveness to government practices has influenced the success of this project's inclusive instructional approach.

[2] Disability simulations involve training participants without disabilities imitating or acting out the experience of having a disability. Silverman (2015) cautions that such simulations may be misleading and conflate the short-term experience of having a disability to the experience of having a disability over a person's lifetime.

6. The Bridge Program is well-received by government counterparts, and additional resourcing for inclusive teaching and learning in general education settings would expand the reach of the inclusion team's efforts.
7. The Bridge Program has unanswered questions about the resourcing needs for scalability or sustainability, including uncertain plans of how current students will transition into formal education.
8. The adapted EGRAs for braille and Cambodian Sign Language (CSL) represent an advancement in monitoring learner performance for learners with disabilities but require more time and further validation.

1.3.5 Unintended Consequences and COVID-19[3]

Overarching Unintended Consequence:

Despite the fact that ACR-Cambodia is described as being fully inclusive, the project in practice promotes some activities that are not consistent with inclusion as articulated in the CRPD. For example, although TLMs are generally reflective of UDL principles that would support learners with diverse strengths and needs, the project would have benefited from having the substantially sized and well-trained inclusive education team focus not only on learners who are deaf but also support a wider diversity of learners with disabilities in general education settings. While segregated settings appropriately offer students who are deaf access to an education in a CSL rich environment, in accordance with the CRPD, other categories of learners with disabilities should have access to education with peers without disabilities. There was a missed opportunity of the team to support learners who are deaf while also advocating for the advancement of more inclusive systems for other learners with disabilities.[4] Also, ACR-Cambodia's extensive training efforts at both the in-service and school-based professional development levels offer minimal focus on explicit inclusive education issues, a striking inconsistency between the project's stated objective and its actual implementation related to inclusion. This may have an unintended consequence of producing a cohort of teachers who claim to be trained on inclusive education yet are unable to demonstrate principles of inclusion in practice.

Additional *potential* unintended consequences stemming from the overarching consequence above, subject to further validation, include the following:

1. From solicitation to implementation, there was not a consistent definition or shared conceptional understanding of inclusive education.
2. The inclusion team's core activities could potentially lead to a greater focus on segregated and integrated education than the intended focus of inclusion in general education settings.
3. Inclusive education activities sometimes operate in a siloed manner and are not part of all programming.

[3] These findings are interim in nature, as further in-person data collection is needed to validate and learn more about the unintended consequences of project implementation.

[4] Recognizing that the definition of inclusion for persons who are deaf differs from other disability groups, such a distinction may not be well-understood by the general population, which may conflate these efforts with preferred approaches to inclusion for persons with disabilities in general.

4. The voice of persons with disabilities was not consistently considered in the project design and implementation.
5. The project solicitation had a clear focus on disability but did not clearly describe the diverse types of disabilities present, and this may have inadvertently led to a prioritization of hearing and vision disabilities instead of working with all types of disabilities.

COVID-19 Summary: The COVID-19 pandemic represented an unplanned challenge for education programming globally, and the project's speedy, organized, and creative response to this crisis may be informative for future programming. The project was largely successful in rapidly distributing TLMs to learners at home, producing and disseminating online content, supporting a return to hybrid instruction, and re-envisioning the way in which teacher professional development was delivered. This included the use of literacy coaches to deliver localized training programs and the standardization of some training content through pre-recorded videos. While such strategies may have supported learners with diverse needs, children with disabilities in general education schools did not receive any known special support during this pandemic to promote their engagement or participation.

1.4 Structure of Report

This interim report is composed of several sections. First, the report introduces the evaluation and the ACR-Cambodia project and then explains the methodologies used to collect and analyze data to date. Following this, the report is divided into five distinct sections that correspond to the five themes that form the focus of the Cambodia evaluation and the MCSIE cross-country comparison. These sections are Process, Screening and Identification, Instructional Training, Instructional Approaches, and Unintended Consequences. Each of these sections includes an overview of data gleaned from key informant interviews (KIIs) and document reviews to date as well as a synthesis of key conclusions generated from this data. The report concludes with a summary of key lessons learned from this report, and a description of next steps for the evaluation, including the collection of stakeholder interviews with school-based staff and parents, classroom observations, comparative case studies, and secondary source data review.

2. Introduction

This section of the report provides an overview of the purpose of the evaluation, the ACR-Cambodia program, and the purpose of the report.

2.1 Purpose of Evaluation

USAID is partnering with IDP, through the LASER PULSE mechanism led by Purdue University, to conduct a three and a half-year evaluation of three USAID inclusive education activities in Cambodia, Malawi, and Nepal. These inclusive education activities represent USAID's most concerted effort to date to build systems to ensure students with disabilities have access to quality education.

This evaluation effort titled the Multi-Country Study on Inclusive Education (MCSIE), seeks to derive lessons about what works, for whom, and in what context to sustainably advance teaching and learning outcomes for children with disabilities in the target countries. Toward this goal, IDP is using a process-evaluation design to develop individual case studies of the inclusive education system in each country and to show how the USAID-funded interventions have affected the respective systems. Five key themes provide a framework for the study: process, identification, training, instruction, and consequences. For each theme, IDP generated an evaluation question (EQ) to inform the project of both individual country programs as well as programming across the three countries:

1. **Process:** What worked well/poorly in the process of setting up an efficient, effective, and sustainable system to focus on improving the quality of education for learners with disabilities?
2. **Identification:** What methods worked best to identify learners with disabilities?
3. **Training:** What training model(s) worked best to provide teachers with the resources and support they need to best meet the needs of learners with disabilities?
4. **Instruction:** What instructional models worked best to improve classroom instruction and reading outcomes among learners with disabilities?
5. **Consequences:** Were there any unintended consequences of the activity? What were they?

Each question includes the following sub-questions:

1. How does the method/model work?
2. Why does it work/not work?
3. How costly is it? In which contexts is it likely to work best?
4. How sustainable (both in terms of capacity and financial resources) is it?
5. What is the impact on gender?

While not a part of the original evaluation questions, this study also examines for whom the programs work or do not work and what specific contextual factors may influence successes or create barriers. Furthermore, a summary of the impact on the project related to the COVID-19 pandemic has been added to the section related to Unintended Consequences.

USAID and its partners will use the MCSIE evaluation to inform adaptations to its inclusive education activities in Cambodia, Malawi, and Nepal and to plan for new inclusive education programming globally. The data for this report was collected in real time, and the findings are not indicative or predictive of future project activities or final project outcomes. Evaluations of this type should be considered part of an iterative and responsive research methodology that generates knowledge over time. The following report outlines evaluation findings from ACR-Cambodia, while cross-national comparisons will be made in the endline phase of MCSIE.

2.2 Overview of ACR-Cambodia Inception and Current Programming

In 2017, RTI International became the prime awardee of the ACR-Cambodia project that seeks to improve the EGR abilities of children in preschool to grade 2.[5] ACR proposes to achieve its goals by developing, testing, and implementing a rigorous, practical, and scalable intervention in Khmer language for this student population in at least two provinces. These provinces currently include Kampong Thom and Kampot. RTI is working with the Cambodian MoEYS, its IPs, and nongovernmental organizations (NGOs) to implement this activity, while also supporting the ministry in developing plans and building the ministry's capacity to eventually scale up the EGR program at a national level.

Furthermore, RTI currently partners with several international sub-awardees, including Room to Read, Save the Children, World Education, and World Vision and has formerly partnered with local institutions, including Krousar Thmey (KT). As part of the ACR-Cambodia project, RTI also collaborates with Global Partnership for Education (GPE) activities, which include both Khmer literacy and mathematics implemented in other provinces in Cambodia (ACR-Cambodia, 2019a). In September 2018, RTI received additional funding from USAID under the All Children Learning award to expand the integration of inclusive education principles into the existing EGR programming.[6] While there are two funding streams supporting this activity, all project reports refer to the work generally as ACR-Cambodia.

With the infusion of the additional funding, ACR-Cambodia's revised mission is to support EGR for all children, including those with disabilities. As such, the project features broad messaging on inclusive education (ACR-Cambodia, 2019a). Early activities included a situation analysis on disability-inclusive education conducted in 2017 (Hayes & Bulat, 2018), followed by incorporation of inclusive education strategies into teachers' guides and Khmer-language TLMs. ACR-Cambodia also adapted TLMs for braille and sign language, primarily for use in special schools, along with the development of an adapted EGRA for the same population (ACR-Cambodia, 2019a). Another ACR-Cambodia activity was a hearing and vision screening pilot implemented in regular schools (ACR-Cambodia, 2019e). ACR-Cambodia also supports a small number of children who are deaf to receive sign language instruction from volunteer community members with the ultimate aim of helping these children transition to formal schooling in the future (ACR-Cambodia, 2019a). These and many other strategies to support both inclusive and special education will be discussed in this interim report.

2.3 Purpose of Interim Report

The MCSIE is comprised of four phases: 1) inception, 2) initial data collection, 3) midline data collection, and 4) endline data collection.[7] During the inception phase, IDP developed a framework that sought to identify promising practices in inclusive education that are both contextualized and

[5] The initial target population were children in grades 1 to 3.

[6] USAID's Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA) contributed funding for these integration efforts.

[7] These phases are subject to change based on the COVID-19 pandemic and shifts in data collection plans and project end dates.

aligned at the local level and to identify where gaps exist in practice. To familiarize IDP, local partners, and stakeholders with MCSIE, IDP conducted an initial inception visit to each of the three countries. Following the inception visit to Cambodia (November 3–9, 2019), IDP produced a report presenting core findings and analyses generated from KIIs and stakeholder engagements conducted during the visit. These findings informed the development of an evaluation-design matrix, along with a data collection plan, to guide the implementation phases of the evaluation for Cambodia.

Since the MCSIE start date began well after project implementation commenced in Cambodia, IDP was only able to collect data closer to the midline and endline of project implementation. Furthermore, IDP proposed an interim report as an alternative to an initial or midline report due to the restrictions imposed by the COVID-19 pandemic, which put a halt on all in-country data collection for the MCSIE team and slowed many of ACR-Cambodia's activities. The initial data collection phase was originally projected to include KIIs, focus group discussions (FGDs), the collection of household information via survey, teacher training and classroom observations, and a review of secondary data. This interim report includes a review of secondary source data from the implementing partner, a short implementing partner survey, and the KIIs/FGDs.

The collection of household data and observational data had to be postponed due to the COVID-19 pandemic. However, IDP was able to develop, translate, and conduct cognitive testing to improve the validity and comprehensibility of these data collection tools. Classroom observation data, comparative case studies, parent interviews, teacher interviews, and school director interviews are all forthcoming. Finally, through the MCSIE Areas of Intervention Mapping activity, IDP will examine and document the various screening, teacher training, and instructional efforts undertaken broadly in Cambodia by other stakeholders such as local and national NGOs. A forthcoming report on this topic will provide a comprehensive picture of who has been or is currently active in this space in Cambodia, how these efforts function and relate to one another and to ACR (where relevant), and what future efforts can be ascertained.

This interim report seeks to provide a snapshot of the available evidence to answer each of the five areas of inquiry or evaluation (process, identification, training, instruction, and consequences), as they pertain to the work of the ACR-Cambodia project. The report also serves to shed light on the status of inclusive education programming for relevant stakeholders in Cambodia, others within the USAID network, and global stakeholders who would like to learn from the evidence generated.

3. Methodology

This methodology section provides a general overview of the methods used to obtain data for the report, including information on data collection and analysis methods, the role of evaluative rubrics and checklists, and the limitations of this study.

3.1 General Overview

This chapter describes the general evaluation methods used to answer the five target questions about process, identification, training, instruction, and consequences. For the purpose of this interim report, IDP and its local partner, CDPO, developed and implemented a general staff survey; collected and reviewed 57 secondary sources including reports, training materials, and TLMs that were developed by the ACR-Cambodia project (see Project Documents Reviewed); and conducted KIIs or FGDs with 42 stakeholders. These stakeholders included core ACR-Cambodia staff from RTI and subcontracted partners; DPOs; central-, provincial-, and district-level government officials; and others.

To provide a consistent set of evaluation criteria to help IDP staff draw conclusions, staff used a series of rubrics to identify strengths and potential gaps in screening, training activities, and TLMs. Because of COVID-19 and timing restrictions, IDP could not directly observe training or screening activities, but used rubrics to make preliminary assessments of activities based on available data and followed up with questions in KIIs and FGDs to clarify any issues rubrics or reports could not identify. The paragraphs below provide additional information on the interview and rubric methodologies. Data was collected and analyzed from November 2019 through December 2020. Findings from this data should be considered formative in nature as the project activities are currently ongoing.

3.2 Key Informant Interviews and Focus Group Discussions

In line with MCSIE's data-analysis plan, IDP conducted KIIs and FGDs with project staff from RTI and subcontracted partners; DPOs; central-, provincial-, and district-level government officials, and other persons familiar with the project to inform the interim report. The purposes of the KIIs and FGDs for the various stakeholders were as follows:

1. **ACR-Cambodia project staff from RTI and subcontracted partners:** To understand process considerations as well as IP perspectives on achievements and lessons learned.
2. **Government:** To understand perceptions and roles of local and national government officials in MCSIE projects.
3. **DPOs:** To understand perceptions, roles, and contributions of DPOs to MCSIE projects.

3.2.1 Sampling

Sampling was purposive in nature and limited only to people with deep familiarity with the project (aside from DPOs). When collecting data with qualitative instruments, the research team selected participants who could describe in most detail the benefits and challenges of programming. ACR-Cambodia also provided recommendations at the project and government level. Although IDP aimed for gender parity in interviews and focus groups, males predominately hold governmental offices in Cambodia. Therefore, IDP recruited diverse perspectives to the extent possible with available participants in particular categories while acknowledging the limitations of gender-unequal roles in various aspects of implementation. CDPO interviewed all major DPOs active in the target provinces; this included four DPOs in Kampot and one in Kampong Thom.

Exhibit 1. KII and FGD Sample

Stakeholder Type	Total	Male (%)	Female (%)
Implementing partner staff	13	4 (9.5%)	9 (21.4%)
National government	4	4 (9.5%)	0 (0%)
Subnational government	20	14 (33.3%)	6 (14.3%)
DPO	5	4 (9.5%)	1 (2.4%)
Total	42	26 (61.9%)	16 (38.1%)

3.2.2 Enumerator Training

IDP's international research team conducted remote enumerator training with CDPO to prepare for KIIs and FGDs of stakeholders, including all government and DPO stakeholders whose preferred language for interviews was Khmer. This training introduced MCSIE, familiarized local enumerators with the data collection tools and procedures, provided a how-to training for conducting KIIs and FGDs, reviewed ethical considerations, and provided time for interview skills practice. The training also provided background on the ACR-Cambodia programming and its related activities. Additionally, IDP trainers reviewed the data collection protocol specifically for members of government and DPOs. Once participants discussed and understood the procedures for data collection (including informed consent), IDP's international team reviewed the interview tools and facilitated interactive discussions and activities for practice. The training concluded after a discussion on various scenarios that might be encountered in data collection and a question/answer session.

To ensure enumerator training for the full project staff was delivered in the local language and context through Cambodian leadership, two IDP researchers provided preparatory training to IDP's local consultant for MCSIE, Sophak Kanika Nguon, and six CDPO staff. This preparatory training—focused on orienting local enumerators to administer KIIs and FGDs to both government and NGO/DPO representatives in Cambodia—was delivered on August 6–7, 2020. Following this, Ms. Nguon and CDPO staff co-facilitated the enumerator training workshop on August 11–13, 2020, in the Khmer language at the Diakonia Centre in Phnom Penh. The training was three days in duration and included a CDPO independent training activity on August 11, which introduced trainees to general principles of disability inclusion in a Cambodian context. Following this, the practical training on August 12–13 provided an overview of data collection required for this evaluation. Seventeen participants were in attendance, including representatives from CDPO, local DPOs based in the Kampong Thom and Kampot provinces, and IDP's consultant Ms. Nguon.

While all training attendees were not immediately required to participate in data collection activities, CDPO staff considered it prudent to engage all potential data collectors over the life of the evaluation to ensure they were aware of the evaluation's scope and could develop skills in data collection since many enumerators were inexperienced. Therefore, more trainees attended than would be required for the initial data collection activities. DPO participants left midway through the final day of training, so that a half-day session could be allocated to training the remaining data collectors on interview strategies with DPO stakeholders as respondents. The attendees' demographic information (including trainers) is described below:

Exhibit 2. Enumerator Training Participants

Organizational Affiliation			Sex		Disability Status		Total
CDPO	Provincial DPO[8]	IDP local consultant	Male	Female	Person with a disability	Person without a disability	
6	10	1	8	9	17	0	17

3.2.3 Data Collection

KIIs and FGDs were conducted from August to November 2020, with government interviews conducted after this date (delayed due to COVID) generally not included in interim reporting. While some interviews were as short as 40 minutes or as long as two hours in duration, most interviews were approximately one hour in length. Select project staff, with extensive responsibilities in areas related to this evaluation, were interviewed on two different occasions. Most interviews were conducted remotely via Zoom, Telegram, or telephone, with a limited number of in-person interviews conducted with national government personnel as requested by the government and in compliance with relevant national health and safety protocols. All KIIs/FGDs were recorded and transcribed for data analysis, and verbal informed consent was obtained for each.

Interviews and focus groups conducted in Khmer were transcribed by CDPO and translated into English by a professional translation firm in Cambodia. IDP provided the translation firm with guidance on the appropriate translation of disability terminology into English to ensure IDP could understand the intended meaning as conveyed by Cambodian interviewees in Khmer. The translation firm performed quality checks on the CDPO transcriptions where any ambiguities arose, and CDPO and Ms. Nguon assisted in quality checking a selection of translations completed by the professional translation firm. IDP researchers sought clarification for any ambiguities in the final English translations, finding few.

Using Otter transcription software, IDP researchers translated interviews and discussions conducted in English. A second IDP researcher performed a quality check for all transcriptions. Individual transcripts were imported into NVivo software for coding and analysis and de-identified for this report.

3.2.4 Data Analysis

IDP conducted qualitative analysis using a combination of approaches. First, a series of thematic deductive codes were developed into a codebook related directly to the evaluation questions for this project (Annex B). Qualitative analysts developed additional deductive codes when interviewees presented outliers or anomalies in the data. The principal investigator oversaw the development of the qualitative research initial codebook as well as the inductive codes identified during preliminary analyses. The IDP team coded all KII and FGD data for analysis and synthesis in this report. Data was collected on a rolling basis alongside secondary source data analysis

[8] Not present on afternoon of final day of training, which focused on methods for interviewing DPOs.

throughout this evaluation and was used to triangulate and clarify any substantial inaccuracies in the secondary source data analysis.

Exhibit 3. Qualitative Data Analysis

Tools	Utilization of analyses	Descriptive Analyses	Content Analyses
Government KIIs	Understand perceptions and roles of local and national government officials in MCSIE projects.	Government evaluation of programming and linkage to policy and existing initiatives. Focus on gender as mediating influence.	Particular focus on deductive codes "identification", "training", "instruction", "EGRA", and "consequences" as well as sensitizing concept analysis of IP/government relationships and process analysis of policy development.
DPO Interview/FGD	Understand perceptions, roles, and contributions of DPOs to MCSIE projects.	DPO perceptions of involvement, human rights perspectives, and project consequences. Focus on gender as mediating consideration.	Particular focus on "identification", "training", "instruction", and "consequences" as well as sensitizing concept analysis of DPO/IP relationships.

3.3 Objective of Evaluative Rubrics and Checklists

Based on the results framework, IDP developed evaluative rubrics and checklists to guide the review of inclusive education (IE) and related project materials developed or used in the USAID-funded EGR programs (Cambodia, Nepal, and Malawi). Rubrics offer a process for making the explicit judgments in an evaluation (Davidson, 2005) and are used to measure the quality, value, and/or importance of the materials used in conjunction with particular EGR activities. Rubrics are made up of evaluative criteria, the aspects of performance on which the evaluation focuses, and merit determinations, the definitions of what performance looks like at different ranking levels.

Rubrics have the potential to be used either holistically or analytically.[9] For this report and in support of the ethos of progressive realization,[10] IDP researchers used an analytical approach for this evaluation. Using this analytic approach, researchers mapped data against evaluative standards from both international and local inclusive education and literacy evidence bases. This

[9] King, McKegg, Oakden, and Wehipeihana (2013) discuss two possible ways to use rubrics: holistically or analytically. Where rubrics are used holistically, an analyst makes a single, quick-to-administer judgment, considering all evaluative standards. Where rubrics are used analytically, an analyst makes separate judgments of each evaluative standard in a step-by-step process. These judgments are sometimes then synthesized into one overall evaluation claim.

[10] This term references the concept of "progressive realization" toward the expectations of the Convention on the Rights of Persons with Disabilities (CRPD) by signatory countries. The CRPD recognizes that countries have disability rights and unique inclusive education contexts but should all be making policy changes and economic investments to progressively realize the aims of the treaty.

process allowed the research team to identify where projects aligned with promising practices related to literacy and inclusive education and where there were gaps. It also allowed the team to take the country and project context into perspective and note specific areas of progress. This approach allows for individualization within the rubrics while ensuring consistency of measurement across each MCSIE country for comparability. The rubric and checklist approach led to scores and narrative summaries that provided an overview of practice, describing areas of strength as well as areas for recommended improvement within the project and possible causes (see Annexes for full rubric scores).

3.4 Methods for Evaluative Rubrics and Checklists

The rubric and checklist design process began by identifying core domains related to the area of interest and outlining the evaluative criteria. For example, one teaching and learning material (TLM) inclusive education rubric was based on the seven core principles (i.e., domains) for promoting literacy skills for students with disabilities, as identified in the USAID publication *Universal Design for Learning to Help All Children Read* toolkit (Hayes, Turnbull, & Moran, 2018). For each domain, IDP developed standards that provide a more nuanced understanding of the respective domain. These standards were then placed on a rating scale for assessment. In addition, for each standard, IDP developed rich descriptions for all ratings to aid reviewers using the rubric.

Rating scales varied slightly depending on the rubric, but most used a five-level rating scale such as the one displayed below.

Exhibit 4. Rating Scale

N/A	Not applicable
0	No evidence
1	Limited evidence
2	Some evidence
3	Strong, high-quality evidence

IDP piloted each rubric/checklist with a multidisciplinary team based on researchers' areas of expertise. The team scored rubrics independently and discussed divergent scores until consensus was achieved. Due to the multidisciplinary nature of the team and its varying levels of familiarity with the educational context of Cambodia, this approach was favored over inter-rater reliability. The team revised scores based on the pilot results to ensure context and the conceptual validity of the area of inquiry. The team then developed narrative templates to summarize the findings for inclusion in the interim evaluative reports. Because of its more advanced project implementation timeline, the Cambodia project was prioritized for the first interim report. A description of each rubric/checklist can be found below.

Exhibit 5. Rubric/Checklist Descriptions

Evaluation Question	Rubric/ Checklist	Purpose
Process	Process Checklist	To review the IP's technical implementation of their project and any impact it has on meeting the contractual obligations under the statement of work, particularly as it relates to inclusive education. Evaluators will review organizational, planning, and reporting documents to identify elements that showcase beneficial implementation practices as well as note any missing information or programming delays and changes.
Process	MEL Plan Rubric	To evaluate each activity against USAID guidance and best practices in monitoring, evaluation, and learning (MEL); to gain insight into how progress and outcomes are measured and reported, particularly as it relates to inclusive education.
Identification	Screening Rubric	To evaluate each activity's screening tools and protocols as aligned with current standards related to target population, ethical considerations, validity, reliability, fairness, referrals, and data use/sharing.
Training	Training Checklist	To evaluate each training activity in terms of target audience, content, delivery, accessibility, and sustainability.
Instruction	TLM Rubric IE and Literacy	To evaluate the degree of alignment between TLMs and evidence-based international standards for inclusive literacy instruction, with standards derived from core inclusive education principles referenced in the *Universal Design for Learning to Help All Children Read* toolkit (Hayes et al., 2018) and core reading principles as outlined by the National Reading Panel (2000).
Instruction	EGRA Rubric	To evaluate each activity's adapted EGRA process for children with identified disabilities, from design and instrument development, through assessor training, pilot testing, and data collection, to analysis and reporting. Evaluation criteria are derived from the *USAID EGRA Toolkit* (2016). Information related to accommodations or modifications for children with disabilities is captured using the rubric and examined against available, relevant literature but not evaluated against standards specific to the EGRA, as these are not yet established for children with disabilities.

In total, the evaluation team reviewed 57 official project documents, including training materials, teacher TLMs, screening materials, and project reports. Some documents were brief, such as teacher training handouts, while others were more than 100 pages in length, such as teachers' guides. A full list of project sources reviewed is detailed in Project Documents Reviewed.

3.5 Limitations

Because of ongoing project activities and project changes due to the COVID-19 pandemic, IDP collected all the relevant secondary source information available to the research team to date. The team was unable to collect any in-person data; thus, data has not been triangulated with data collection activities to take place in the future (classroom observations, teacher interviews, in-person training observations, and more).

As for another noteworthy limitation, some government interviews could not be included in the primary data analysis due to the window of time in which this interim report was produced. There was a protracted delay in obtaining an official government permission letter allowing CDPO to interview its stakeholders. This delay took longer than anticipated; in addition, CDPO and government staff had to reschedule interviews because plans continually changed due to COVID-19. As a result, some government interviews could not take place until December 2020 and January 2021 and were conducted too late to include in qualitative analysis. Therefore, some government perspectives could not be considered when generating narrative accounts, and IP staff perspectives have subsequently formed the basis of some evaluative findings. A subsequent report will include these government perspectives.

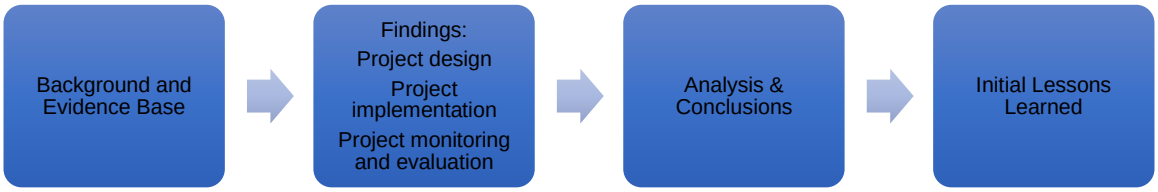
Additionally, the MCSIE team was unable to access the original ACR-Cambodia solicitation due to its release under a task-order contract mechanism that is not publicly posted. Consequently, the solicitation analysis performed in this report—including a comparison between the solicitation and the delivery activities—was only based on the All Children Learning (ACL) solicitation, which MCSIE was able to publicly access.

Finally, there are limits to the use of rubrics and data collected from secondary source materials and post-hoc KIIs. While IDP was able to identify programmatic challenges and successes through the secondary source data, the reasons behind programmatic decisions were not always apparent. The purpose of the KIIs and FGDs were to shed light on these decision points that were not always readily apparent in secondary source materials.

4. Evaluation Question 1: Process

The purpose of this section of the report is to provide a background on the process evaluation, findings from this evaluation, and analysis of these findings. Exhibit 6 provides a visual overview of the process section of the report.

Exhibit 6. Information within Process Section



4.1 Evidence Base: Background on Process and the Project Cycle

Evaluation question #1 specifically seeks to evaluate "What worked well/poorly in the *process* of setting up an efficient, effective, and sustainable system to focus on improving the quality of education for learners with disabilities?" To this end, IDP examined the technical aspects of implementing the ACR-Cambodia project using a program life cycle lens.[11] This included developing evaluative tools (Process Checklist and MEL Rubric) linked to the activity design, implementation, and monitoring phases of a program life cycle and is supplemented by KIIs. For the purposes of MCSIE, IDP is evaluating the inclusive education activities within the ACR-Cambodia project under the umbrella of USAID's Cambodia project cycle, specifically activity design and implementation. The program life cycle approach allows IDP to frame MCSIE findings with this broader lens.

The following subsections outline the components of the activity cycle and the types of evaluation questions they help to answer.

Activity Design

During the *design* phase, an IP acquires human, capital, and material resources required to carry out the activity and develops activity planning documents, such as communication and annual work plans. This includes making decisions based on project start-up activities, staffing, and locations for implementation.

1. Activity start-up (e.g., does the implementing partner ensure timely completion of start-up inclusive education activities and adhere to specific Cambodian government requirements?)

[11] This is consistent with USAID's own approach, which uses a program life cycle approach to "ensure its policies, strategies, allocations of human and financial resources, budget requests, and award-management practices are evidence-based and support governments, civil society, and the private sector in each country" (ADS 201, 2020, p. 12).

2. Staffing (e.g., how does the implementing partner hire inclusive education project staff, including staff recruitment, hiring, onboarding, supervision, ongoing staff training and development, etc.?)
3. Location (e.g., do inclusive education locations align with the activity's geographical scope and goals, and do they allow for interactions with key stakeholders?)

Activity Implementation

During the *implementation* phase, the IP executes activities outlined in its planning documents, which can include engaging other stakeholders to carry out these activities. This implementation also encompasses themes of partnership and communication between stakeholders to encourage local buy-in and capacity-building.

1. Implementation (e.g., does the IP implement inclusive education activities in a timely and efficient manner?)
2. Partnerships (e.g., does the IP develop formal and informal partnerships with government entities, DPOs, and other organizations working on inclusive education or EGR activities in Cambodia?)
3. Communication (e.g., does the IP communicate regularly within its consortium and with stakeholders, including USAID, regarding inclusive education activities?)

Activity Monitoring

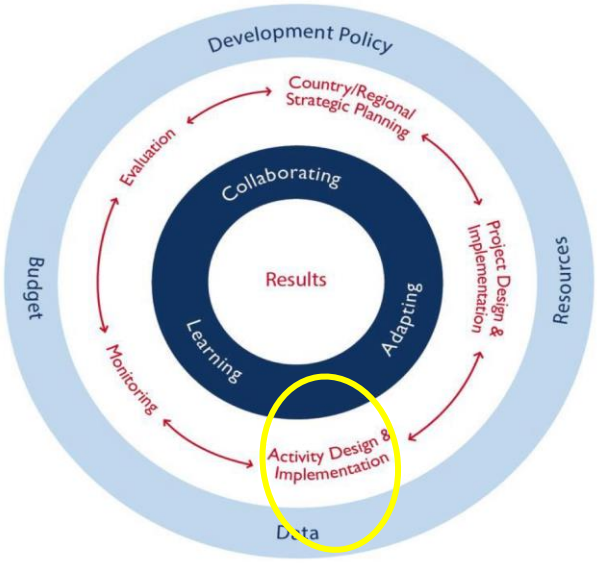
During the *monitoring* phase, the IP ensures data is accurately recorded and reported, oversees resource utilization, and works to maximize program sustainability. Activities to support monitoring include information sharing and sustainability efforts through the activity life cycle.

1. Monitoring (e.g., does data gathered during implementation support learning and adaptive management?)
2. Information sharing (e.g., does the IP have established procedures to store and share data with stakeholders safely and securely?)[12]
3. Sustainability (e.g., does the IP work to facilitate the lasting integration of activities into Cambodia's inclusive education system?)

The following exhibit highlights the areas of evaluation for the MCSIE Process Checklist and MEL Rubric that align with USAID's project cycle (USAID Learning Lab, 2020). The diagram is circular, indicating that evaluation is not a final, summative action taken at the end of a linear program but is a way of providing feedback and information to the activity, its sponsors, and its government partners in order to facilitate continuous learning and improvement. Specifically, MCSIE is reviewing the ACR-Cambodia activity design, implementation, and monitoring.

[12] Data on information sharing has largely been added to Annex B.

Exhibit 7. USAID Project Cycle



Source: USAID Learning Lab, 2020

Process Evaluation

In order to evaluate process, IDP collected primary data through an IP survey and KIIs as well as reviewing secondary source materials.

This section does not address how the COVID-19 pandemic impacted the ACR-Cambodia project as this is addressed in greater detail in the COVID-19 section of this report. The sections below highlight areas of strength related to process domains as well as missed opportunities or opportunities for growth. In some instances, ACR reported strengths and missed opportunities; in other instances, IDP identified strengths and opportunities through its review. The rest of the section is organized by the three phases of the project life cycle outlined above.

4.2 Findings

Below are the main findings related to the process evaluation, organized by the project cycle phases: 1) project design, 2) project implementation, and 3) monitoring and evaluation.

4.2.1 Project Design

Within the project cycle component of project design, IDP analyzed the solicitation, project start-up activities, the recruitment of staff, and staff training. Each of these components is discussed in further detail below.

Solicitation

Highlights

Strength

- The ACL-Cambodia solicitation affords extensive focus to issues of inclusion.

Missed Opportunity

- The solicitation could have been strengthened by defining inclusive education, ensuring all categories of disabilities were mentioned, producing a theory of change, and requiring DPO engagement.

The ACR-Cambodia project is part of RTI's larger All Children Reading–Asia contract with USAID, which began in 2018. The larger program was already designed when, during Q3 of fiscal year FY18, RTI received additional funding from USAID under the All Children Learning (ACL) award to integrate inclusive education practices into the program. Although an inclusive EGR package and hearing and vision screening activities were already underway from the original ACR-Cambodia award, the additional funds helped the project focus on issues related to disability inclusion and employ dedicated inclusive education staff. The expanded funding helped support the five segregated special schools nationally, an inclusive education community mobilization strategy, and screening activities for "mild and moderate disabilities," alongside general education activities such as materials development and pre-service curriculum development.

The solicitation for ACL asks the implementer to identify opportunities to integrate inclusive education for students with "mild disabilities" in the EGR program. A focus on hearing, vision, and intellectual disability or cognitive delays is mentioned, but no other disability categories, such as physical or learning disabilities, are described. Inclusive education as a term is used repeatedly throughout the solicitation and is described as an approach that supports people with disabilities as among the most marginalized; however, no conceptual definition of inclusive education was found in the ACL solicitation. Additionally, the ACL solicitation does not provide a theory of change to describe the anticipated impact of its programming through targeted interventions. Finally, while government and NGO partnerships are heavily emphasized in the solicitation, no such requirement exists for the IP to collaborate with DPOs.

Project Start-Up

Highlights

Strength

- The project collaborated with government stakeholders to negotiate plans.

Missed Opportunity

- The project encountered delays related to registration, hiring, and change in scope, affecting the timeline of implementation.

Broadly speaking, the work undertaken by the ACR-Cambodia project aligns with the program's solicitation requirements. However, IDP notes there have been some shifts from project design to implementation. During project start-up, for example, ACR-Cambodia experienced delays,

modifications to project activities, changes in geographical scope, and changes in project staff. ACR-Cambodia provides explanations and justification for most but not all of these shifts in their progress and annual reporting.

Before adding the inclusive education activities, ACR-Cambodia experienced start-up delays due to the length of time required to obtain official registration as a nongovernmental organization (NGO) in-country. This impacted ACR's ability to hire national staff in a manner consistent with local labor law, its ability to subcontract with project partners, and its ability to engage international staff through employment contracts. These delays do not appear to have had an impact on the inclusive education activities. However, the addition of inclusive education tasks did require the project to coordinate with many stakeholders, such as MoEYS, the Global Partnership for Education (GPE), and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (themes related to the partnership are explored in more depth in the next section: Program Implementation). Through this consultation process, a decision was made to shift the program's target population from grade 1 through grade 3 to preschool through grade 2. The program also shifted its geographic scope, moving project activities from Siem Reap to Kampong Thom to coordinate with other stakeholder activities.[13] Due to this shift in location, ACR-Cambodia had to repeat initial data collection in Kampong Thom at the time of inclusive education project start-up in order to have the data needed for project implementation.

After the award of ACL, additional staff were required with specific technical expertise to support the program's expanded inclusive education activities. Firstly, the collaboration and coordination advisor transitioned into the role of inclusive education team lead because the advisor had previous experience working in inclusive education. Following this, RTI began to recruit for other members of the inclusive education field team, which initially comprised two inclusive education officers and one inclusive education technical advisor and later one deaf education specialist. The experience of bringing these staff on board is discussed further below.[14]

Staffing

Highlights

Strength

- The project recruited inclusive education staff with diverse special education or disability backgrounds and attempted to source additional international expertise as needed.

Missed Opportunity

- The staff working on inclusion were sometimes siloed from general project activities including training, and a bank of additional technical experts may have helped fill gaps related to limited national staff experience in inclusive education.

[13] IDP did not yet investigate the reason for this shift.

[14] The experience of finding staff and volunteers for the Bridge program is discussed further in the Bridge section of this report.

Ensuring technical capacity within the inclusive team is complex and often requires a specialist background by staff. This is certainly a challenge that ACR-Cambodia encountered. Although not focused on management of development projects, Sokal and Sharma (2017) found that formal coursework and practical teaching experience in inclusive education significantly improve teachers' attitudes and capabilities related to inclusive education. This work and others (e.g., Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007) point to the importance of academic background for inclusive education when implementing inclusive education activities. Hickey, Bukenya, and Sen (2015) found that marginalized groups (such as children with disabilities) need representation in development planning or will likely remain marginal in implementation. Together, the arguments of Sokal and Sharma (2017) and Hickey et al. (2015) present an important consideration for all-inclusive education programs: the presence of an academically prepared core staff member who can speak to ways inclusion can be generated within development initiatives is needed.

ACR-Cambodia experienced hiring challenges related to these positions due to an extremely limited pool of qualified candidates in Cambodia with the necessary technical expertise to fill inclusive education roles. Recruitment for these positions was difficult and sometimes required multiple rounds of advertisement. Existing staff leveraged their professional networks, such as the Working Group on Education and Disability, to advertise for positions and recruited applicants with disabilities by including the statement "persons with disability are strongly encouraged to apply" in all ads. Based on secondary documentation review, delays in hiring inclusive education field staff, particularly the deaf education specialist, impacted ACR-Cambodia's timeline for implementation of inclusive education project activities, such as its ability to pilot screening tools and adapted assessments.

Despite delays, ACR-Cambodia also sourced international staff with inclusive education technical expertise to meet the needs of the program. The first international inclusive education advisor had limited experience in EGR programs but expertise in deaf education, expertise in field-based screening in Africa, and a doctoral degree in a relevant field. Following the resignation of this individual, a second international advisor was engaged, who has over 15 years' relevant experience, post-secondary degrees, teaching experience in inclusive education, and extensive technical-advising experience with diverse stakeholders in Cambodia and abroad.

ACR-Cambodia staff reported it was very challenging to find staff with inclusive education experience in Cambodia as opposed to special or general education experience, given the concept of inclusive education is relatively new to in-country. ACR-Cambodia staff were therefore able to hire staff with deep experience with engaging students with disabilities in local contexts, such as in segregated school environments. Those who did have prior inclusive education experience reported their past related work mostly focused on disability screening and referral and little on instruction in inclusive classrooms. Other special education-related experiences reported by project staff included supporting students who are blind or have low vision, deaf education, sign language interpretation, device procurement for learners with mobility disabilities, disability vocational training, or early childhood disability service provision.

In interviews, ACR-Cambodia inclusion staff described diverse past experiences in segregated classrooms and in general education settings where there was a focus on providing accommodations, such as preferential seating for learners with difficulty seeing. However, no one described previous experience, prior to joining the project, related to UDL or supporting teachers to develop inclusive teaching strategies that support all learners, irrespective of whether they have a diagnosed disability. ACR-Cambodia's challenges in finding staff with experience in inclusive education speaks to an emergent trend in educational policy—the shift from providing accommodations for *some* to designing programming which promotes accessibility for *all*. This distinction has been observed by Edyburn (2010) who notes that approaches which aim to meet the needs of people with disabilities often move from providing individual *accommodations* for people with disabilities to a universal design approach that considers *accessibility* for all, thus facilitating a reduction in need for individual accommodations.

Ultimately the ACR-Cambodia leadership described intensive efforts to find quality resources in-country and hired outside consultants to provide additional support. While the resulting inclusive education team was comprised of professionals with a variety of areas of expertise, no one person's experience addressed the inclusive education needs of the project in a holistic manner because of the project's diverse scope. For example, one inclusive education specialist was a deaf education expert but still required support with designing a standardized assessment (i.e., producing a modified CSL EGRA), while another inclusive education specialist had diverse pedagogical expertise but IDP observed gaps in the specialist's knowledge about contemporary screening approaches for students with disabilities.

Project staff mentioned multiple types of support that would be helpful when considering building the technical capacity of new and existing staff. Project staff expressed it would be helpful to have more staff in director and inclusive education advisor roles who had more breadth and depth in terms of understanding inclusive education, although many recognized that such expertise is hard to obtain. While project staff had many areas of experience and expertise, staff expressed their knowledge and the application of their knowledge felt siloed and disconnected from the larger overall picture of inclusive education. For example, inclusive education staff were not regularly involved in activities such as teacher training that might contribute to a vision of inclusion across project activities.

As a possible solution to breaking down siloes and staff experience not meeting complex project needs, a staff member suggested having a "bank" of consultants to bring into the project as needed for support and to ensure all project pieces connect in meaningful and cohesive ways. As a result, staff who are newer to the project would not be left with that responsibility. According to this staff member, a consultant bank would help fill known technical gaps likely to arise given no single individual could fill all required areas of expertise. Moving forward, one respondent suggested it may be worthwhile to have more quality control measures to evaluate gaps in technical capacity related to inclusive education within the project consortium in order to identify the necessary support that can be called upon as needs arise.

Finally, regarding language differences, some international interviewees expressed challenges collaborating with stakeholders in content development because of different language proficiency levels. Respondents shared that because some parties either had limited English or Khmer language skills, they sometimes relied on very simple language and on translation to communicate, which impacted the time it took to develop materials and share information. This is a common constraint encountered in USAID literacy programs that leverage both local and international expertise. In the future, some project staff suggested that non-Khmer speaking new staff be provided with a basic overview of the Khmer language, including letter identification and a basic overview of literacy instructional approaches.

Staff Training

Highlights

Strength

- Inclusive education staff received training and ongoing mentoring on diverse and relevant topics.

Missed Opportunity

- Training on disability-inclusive topics is not known to have reached staff who were not specifically working on inclusive education.

With such a wide range of project staff with varied capacities related to inclusive education, the ACR-Cambodia inclusive education leadership—with support from home office RTI professionals—provided the inclusive education team with training that ranged in length on a variety of topics: advocacy and community awareness, including parental engagement; disability laws and policies on child protection; DPO engagement; instructional approaches for students with and without disabilities; use of illustrations and TLMs to promote UDL and inclusive principles; education of students with visual or hearing difficulties; deaf culture and CSL; disability screening and referral processes for hearing and vision; and education for students with intellectual disability. Trainings were often provided by local NGOs that have content-specific training knowledge and/or inclusive education project staff, and were provided according to the evolving identified needs of the team. In the early days of the ACR project, newly hired staff would receive a specific training and then go into the field to observe classroom practice in general education and segregated schools. Additionally, project staff reported they had monthly meetings where they would receive formal and informal mentoring and support that was job specific.

For disability-specific training, new staff would visit segregated schools to see how teachers in that setting provided instruction to their students. Staff with more extensive disability-inclusion experience attended workshops on the findings from the recent inclusive education situational analysis completed in Cambodia, reviewed recent ACR-Cambodia documents, and were encouraged to ask cultural-, disability-, and context-related questions to a local Cambodian staff member with contextual expertise.

4.2.2 Project Implementation

In analyzing the project's approach to implementation, the MCSIE team focused on partnerships, communication, and general implementation strategies in its analysis. The following subsections provide this analysis according to the intermediate results (IRs) of the ACR-Cambodia project in order to analyze what enablers and constraints have arisen in the process of implementing these various activities.

IR 1: Improve usage of inclusive, evidence-based teaching and learning materials (TLMs) by teacher and school leaders

ACR-Cambodia's chief goal has been to produce an EGR Khmer literacy package that supports the teaching and learning process for learners with and without disabilities in target regions. Broadly speaking, this has included the development of TLMs for both students and teachers working in inclusive classes, integrated educational settings, and segregated school environments. It has also included a hearing and vision screening pilot in Kampong Thom and extensive teacher training and coaching activities that underpin the delivery of the entire reading package. As this objective encompasses most activities performed under the project, it has been discussed in detail across the remaining sections of this report.

Furthermore, the Bridge program implemented by ACR-Cambodia is another effort to promote the use of TLMs for learners with disabilities. Section 7.3 describes the Bridge program in greater detail. However, because this program has been referenced throughout this report, an initial summary of the activity has been provided here (below).

ACR's Bridge Program

ACR-Cambodia has been supporting 13 young learners in Kampong Thom who are deaf and did not previously have access to any form of education. These learners are instructed through 1:1 or small-group lessons offered by volunteer community members trained in CSL—none of whom are deaf themselves. Some lessons take place in community settings while others take place in separate classrooms (*integrated classes)* in general education schools. ACR-Cambodia has actively worked to develop engaging and age-appropriate TLMs for these learners to acquire basic CSL skills, using the expertise of deaf education experts. The aim is to support these learners' transition (or "bridge") into integrated classes in the province for learners who are deaf or into a segregated special school in a more distant province. The Bridge program is profiled in greater detail in Section 7 on Instruction.

IR 2: Strengthen and develop partnerships that promote collaboration, coordination, and synergies between partners supporting early grade learning

A stated focus of the project is to build the capacity of local government officials, educators, other NGOs, and the community at large to help sustain efforts to enhance Cambodia's education system. IDP examined ACR-Cambodia's formal and informal partnerships with government entities, DPOs, and other organizations working on inclusive education or EGR programs in Cambodia. In annual and quarterly reports, ACR-Cambodia clearly identifies its current partners and explains the reason for each partnership. However, it is unclear from reporting alone why

some partnerships ended and how responsibilities changed over time. The following sections discuss ACR-Cambodia's consortium and local partnerships, while government partnerships are discussed under IR3.

Consortium Partnerships

Highlights

Strength

- Each consortium partner leverages relevant Cambodia-specific expertise with the consortium acting as a unified voice for inclusive literacy development with MoEYS.

Missed Opportunity

- Discontinued partnership with Krousar Thmey due to disagreements with ACR presented challenges in project delivery, especially related to supporting CSL materials.

Throughout interviews, respondents highlighted the importance of ACR-Cambodia having project staff, partners, and additional stakeholders with expertise in specific areas to aid in program implementation. Major partners of RTI, such as Room to Read and World Education, provided insight into how the organizations collaborate in some areas and provide technical leadership in others. As described in interviews with project staff, ACR's core technical team feels it benefits from the relevant Cambodian background experience each partner organization offers. The partners bring complementary knowledge and skill sets, with some leading on support for children who have hearing or vision difficulties, some offering general inclusion support in TLM development, and others embedding inclusion into coaching models.

In the project consortium, RTI established partnerships with local and international organizations offering specialized expertise. For example, Room to Read supports various aspects of materials development, including the vast suite of student materials the project has developed over time. Room to Read is also the major partner responsible for developing the pre-service syllabi and course materials related to inclusive EGR, discussed further in this report's section on Training. A Room to Read staff person along with a part-time RTI consultant represent ACR among a 12-member development team made up of MoEYS and the Provincial Teacher Training College (PTTC) representatives. At the time of the interview, the team had completed three of the four years of course content for the newly expanded bachelor's degree program.

World Education staff described their role in the consortium as being involved in developing TLMs, drawing from research RTI had already conducted prior to the partnership. They also are closely involved in developing session content for teacher training, including converting face-to-face workshop materials to a "hybrid model," utilizing video content. At the provincial level, World Education supports teachers and literacy coaches in participating schools in Kampong Thom and Kampot. In IDP's 2019 inception visit, Save the Children described their contributions as being primarily centered on supporting grade 1 teachers' guide development, with Save the Children making specific suggestions for the inclusion tips and piloting the EGR package in 20 schools.

The subcontractor staff that IDP interviewed were complimentary of the partnership and ACR's commitment to collaboration and communication.

Krousar Thmey was originally engaged in the first phase of ACR to supply expertise related to screening children for hearing and vision difficulties, adapting EGRA development, and developing TLMs. Krousar Thmey is no longer a formal partner after disagreements arose between Krousar Thmey and ACR related to the proposed revisions to TLMs for use in segregated schools (particularly related to CSL) as well as the timeline for revising existing materials (section 7.3 of this report offers more information related to Krousar Thmey). ACR-Cambodia engages many other partners such as World Vision, Kampuchea Action to Promote Education (KAPE), Enfants et Développement, and Open Institute, but because of IDP's initial focus in interviewing partners involved with inclusive education, IDP was unable to interview these partners at the time of this report.

Overall, RTI project staff as well as representatives from USAID explained that the consortium of partners working together on ACR-Cambodia is a significant asset because, previously, the various organizations working on literacy in the country were focused on different components and were not necessarily aligned or coordinated. Staff noted MoEYS was very receptive when USAID approached them with the concept of ACR, a program that would consolidate the disparate efforts together under a national initiative. Staff commented that the various players have learned a lot from each other. Staff also noted that, historically, projects and organizations working in Cambodia's education sector were reluctant to criticize the national curriculum because such feedback was not received well by government partners. According to some project staff, this resulted in a continuation of the status quo despite its ineffectiveness. Staff expressed that a major benefit of the ACR-Cambodia design is the ability to unite the voices of the major players in the education sector to diplomatically suggest alternative approaches to EGR instruction supported by data, including data that MoEYS itself collects.

Local Partnerships

Highlights

Strength

- The project brought in a diverse group of local NGOs with relevant sectoral and geographic experience.

Missed Opportunity

- National systemic barriers related to hearing and vision screening may have been underestimated, and limited engagement of DPOs throughout the project left gaps in understanding the lived experience of persons with disabilities.

ACR-Cambodia works with local organizations to support various project activities, such as hearing and vision screening, identification, and referrals. ACR-Cambodia also serves as an active collaborator with local organizations and communities in sharing information on disability and inclusive education policies as well as inclusive education practices. Project staff also share disability-specific information with organizations and community members, such as resources

about screening and information assistive devices available for learners with disabilities. Local partnerships related to disability identification are discussed further in this report's section on Identification.

While ACR-Cambodia has leveraged local resources to support learners with disabilities, it has also confronted challenges with implementation that are likely to affect any organization involved in similar implementation nationally. For example, of the project's partnerships with NGOs that offer services (therapy, assistive devices, or other interventions) for learners with disabilities once they are identified, respondents noted that most organizations have extensive waitlists and are thus unable to provide immediate support to students referred by the project. More broadly, staff noted that the support infrastructure for learners with disabilities in Cambodia was less developed and available than the impression given by how many organizations purport to serve this population. This led some inclusive education project staff to reflect on the diversity of unexpected barriers that arose once children were identified for referral after hearing or vision screening. A lesson learned by the project seems to be to make fewer assumptions about and deeply assess existing capacity before finalizing plans for partnerships.

Finally, interviews with DPOs indicated that DPOs were under-utilized resources. In general, DPO interviewees had positive opinions about ACR-Cambodia but also reported they were not engaged as partners in districts where there was both a project and DPO presence. Specifically, some DPO interviewees only became aware of ACR-Cambodia when they were invited to participate in interviews for this evaluation (through communication in 2020 from CDPO as a MCSIE data collection partner). At the early stage of the project in Kampong Thom, the project team involved DPOs when connecting families with health centers, and DPOs have supported the project's communication efforts within local communities of one province by distributing leaflets as well as recruiting Bridge teachers for children who are hard of hearing. Such efforts are consistent with ACR-Cambodia's Inclusive Education Community Mobilization strategy, which seeks DPO engagement in school screening and identification activities. One DPO representative mentioned the project asked him to attend meetings and to evaluate "the testing of children with disabilities." However, because the compensation was insufficient, the representative discontinued his involvement. Through this evaluation, IDP has discovered that DPOs in the two targeted provinces have little experience in the education sector, which suggests they likely would have required additional support with technical capacity-building to collaborate in a more substantive manner in these regions.

IR 3: Strengthen MoEYS system, policies, and oversight for early grade learning delivery and ability to implement the national early grade learning program after activity implementation

Highlights

Strength

- The project built explicit check-in points and communication processes to leverage government buy-in at national and subnational levels.

Missed Opportunity

- A small minority of government interviewees felt overburdened by the workload expected to collaborate with ACR while also managing competing professional demands.

Systems strengthening is a fundamental principle of ACR-Cambodia and derives from USAID's solicitation of the project, which seeks to support local and national government officials, educators, and families and communities throughout its life cycle. From the program's inception, ACR-Cambodia has worked closely with the government, including establishing a presence in local offices with MoEYS. ACR-Cambodia also leverages the MoEYS's Technical Working Group for Early Grade Reading, which includes members from various departments within the ministry, as a vehicle for collaboration and partnership.

Of the processes underpinning ACR-Cambodia's partnership with MoEYS, the process described during interviews was that ACR-Cambodia's "core team" develops a draft version of a given deliverable, engages with MoEYS to develop the full version, and shares the full version with senior ministry officials for approval. A similar process applies to the development of pre-service curriculum with PTTC counterparts, where a core team works on content that is then reviewed and approved by a wider panel.

Following approval of the in-service training content by the government, the ACR-Cambodia core team trains national trainers, who in turn deliver training to educators at the subnational and school levels. The national trainers are government personnel (managerial and technical staff within MoEYS) and partner/NGO staff. Project staff noted that while the government personnel do not all possess the level of technical capacity necessary for effectively contributing to deliverables, their involvement is critical for buy-in, particularly among educators who have historically been afraid to accept any new instructional approaches or materials that are not clearly and explicitly approved and promoted by the ministry. Interview respondents attributed the need for governmental buy-in on new initiatives to the hierarchical culture within the Cambodian education system, sharing that teachers are generally very compliant with governmental authorities.

ACR-Cambodia staff interview respondents also described some of the challenges working with the recently established Special Education Division (SED) within MoEYS. Interviewees noted SED staff are committed but need support in building the capacity to fulfill the SED's mandate of developing inclusive education policy and overseeing its implementation. Evaluation interviewees also noted SED has struggled to fulfill its coordinating role, possibly due to competing reforms the government is pursuing. Respondents in IDP's 2019 inception visit noted that many core SED staff moved to the National Institute of Special Education (NISE) upon NISE's establishment, leaving a major capacity gap at SED. Nonetheless, the project has been able to step in and fill some of these capacity gaps. As one government official expressed, "What the ministry lacks, the project helps to complete. This is how we educate for all, so that children get good results." A small number of government trainers from subnational PTTCs were also interviewed and expressed an overwhelmingly favorable opinion about the project's approach to partnerships with ministry actors.

Interviewees also revealed that because local actors lacked knowledge of Cambodia's disability and inclusive education policies, ACR-Cambodia had to spend time upfront informing individuals of these policies. While many government interviewees stressed the importance of collaboration in the process of implementing inclusive education nationally, many subnational stakeholders are not yet aware of the 2018 Inclusive Education Policy or how it might impact inclusion processes. One interviewee shared that with the policy in hand, it is easier for ACR-Cambodia to talk to subnational officials and leaders and get their support on program implementation and larger inclusive education principles. Another interviewee shared that for Cambodia to achieve the Inclusive Education Policy's goals of raising awareness and understanding among the government officials, it is necessary to encourage and inspire others to implement inclusive education throughout the country. While awareness-raising can be considered part of capacity-building, building knowledge, and developing buy-in from local actors, the progressive realization of inclusive education in Cambodia is still an ongoing effort.

At the provincial level, collaboration between field staff and government departments has helped in troubleshooting challenges that arise. For example, the Inclusive Education Team stays in close communication with authorities at the district and provincial levels, including village chiefs, commune chiefs, and Commune Committees for Women and Children (CCWCs) as well as officers from the Ministries of the Interior, Women's Affairs, and Education. Staff described such communication as useful for gathering or confirming information about children with disabilities, troubleshooting implementation challenges, and planning the support that the project can provide. The inclusive education team communicates with health centers and hospitals on behalf of children with hearing and vision difficulties to coordinate screening or other support.

Almost all government respondents within MoEYS were favorable of the project's communication styles and suggested the project used the appropriate government customs to communicate and collaborate with counterparts. This included all subnational interviewees who indicated they were satisfied with the project's communication. One stated that "the US partners that are starting to implement this are good, both communicating, collaborating, and arranging professional officers in this planning." Others referred to the project's use of standard communication strategies used with the Ministry in Cambodia, such as getting permission letters from the national level that guide work at the subnational level. Similarly, one national-level government official stated that "weaknesses in cooperation or communication seem to be limited because RTI always [works with] our ministry officials."

However, a small minority of interviewees voiced concerns about the project's approach to collaboration. One partner expressed some doubt about the project staff having sufficient knowledge and skills to carry out the work compared to others who had a longer history in Cambodia as well as frustration about the demands made by ACR on partners' time and schedules, which were perceived as being unreasonable in light of the stakeholder's other commitments. These concerns may indicate that communication between ACR and partners about staff level of effort and availability, particularly relative to a given partner's existing or ongoing work, lacked clarity during initial discussions.

4.2.3 Project Monitoring and Evaluation

The final phase evaluated—program monitoring—is informed by three domains: monitoring, information sharing, and sustainability. Each of these domains is included in the narrative results described below. During the *monitoring* phase of a program life cycle, the implementing partner works to ensure program data is accurately recorded and reported, oversees resource utilization, and maximizes program sustainability. In the following subsections, the Activity Monitoring, Evaluation, and Learning (MEL) Plan is evaluated along with information sharing. Evidence of sustainability efforts that the ACR-Cambodia has already initiated as well as areas needing further support to ensure sustainability beyond the project's lifetime are also included.

Monitoring

Highlights

Strength

- The project MEL Plan is clearly written and provides significant detail.

Missed Opportunity

- The MEL Plan lacks outcome indicators related to inclusive education, inclusion data is not systemically analyzed, and the research agenda does not include possible studies related to children with disabilities.

The MEL Plan rubric was developed using USAID's documented guidance for the required and recommended components of an activity's MEL Plan (USAID, n.d.). Annex B describes the full rating scales and criteria used for this evaluation along with a detailed review of each MEL subsection evaluated. According to rubric results, ACR-Cambodia's MEL Plan is strong overall, containing all of USAID's required components as well as several recommended components. It is clearly written and provides the reader with a good understanding of how the project intends to monitor implementation and measure progress. However, the MEL reports lacked detail on the make-up of the monitoring and evaluation (M&E) team and members' roles and responsibilities, partner roles and responsibilities, training and field monitoring plans for data collection, and data analysis plans.

In addition to the lack of staffing details, the absence of explicit plans for evaluating the ACR-Cambodia's inclusive education efforts is an omission relevant to MCSIE. The output indicators specifically about learners with disabilities or vulnerable persons are useful for tracking inclusive teacher professional development (number of teachers trained) and adapted assessments (number of learners with disabilities assessed and number of ministry or partner staff trained to administer adapted assessments). However, there is a lack of outcome indicators specific to students with disabilities and related to these students' learning outcomes. This omission conveys that the project was not designed to measure learning gains among this subpopulation of its target beneficiaries. It is unclear from the MEL Plan whether this choice was driven by feasibility constraints or by the program's theory of change, which is not articulated in the MEL Plan or elsewhere.

Although not mentioned in its MEL Plan directly, the ACR project requires literacy coaches to use a series of structured lesson observation forms when visiting preschool, grade 1, and grade 2 classes. These forms embed indicators related to inclusive practice, such as noting whether teachers accommodate students with hearing and vision difficulty, support struggling learners, and provide individualized support as needed. These observation form indicators, however, were not elevated to the MEL Plan.

Finally, the research agenda described in the learning section of the MEL Plan includes numerous possible research studies that could be of interest for the project, but none are related to inclusion of children with disabilities. Moving forward, in order to create more accountability for inclusive teacher professional development at the classroom level, it may be beneficial to incorporate inclusive principles into research and include an outcome indicator linked to the inclusive practices measured in coaching observation forms.

Interviews provided further context on ACR-Cambodia's intended MEL approach. Interviewed staff noted that the project's intention to monitor through supportive and mentoring relationships between a teacher and a coach is relatively new and unfamiliar in Cambodia. Teachers are accustomed to being visited by district-level pedagogical advisors or inspectors, but the relationship is very hierarchical and not focused on support. Thus, ACR-Cambodia has worked to intentionally forge and align the coach-teacher relationships, in part through ensuring coaches receive the same pedagogical training teachers receive and, in some cases, by providing opportunities for coaches and teachers to experience training together. Staff noted that over the course of the training workshops, they have been able to see signs of growing ease in the relationships between coaches and teachers. In addition to participating in the same trainings as the teachers, literacy coaches receive supervision and support in the field from literacy officers (employed and managed by World Education).

Staff explained that project monitoring data is collected, in part, through coach visits by means of levelled lesson-observation forms and student-assessment tools specifically developed for this project. The tools serve multiple purposes: 1) to measure teacher progress and fidelity of implementation, 2) to support teachers' professional growth, and 3) to monitor implementation of the coaching intervention. Through routine analysis of the collected observation data, the MEL team has been able to provide support to various technical staff (literacy coaches and officers as well as trainers) by identifying changes in teacher performance over time. Conversely, through this analysis, MEL staff have also been able to flag coaching data that stands out or appears "strange," such as when there is little to no variation on a given indicator, which could suggest a lack of understanding among coaches. Staff described generally how exploring cases like this has led to iterative improvements of training and tools by revealing areas where more training, supervision, and support for coaches, or refinements to the observation tool itself, have been needed.

Regarding the inclusion indicators in the observation tools, staff emphasized that the observation tool is designed to capture data on specific inclusive practices that teachers have been trained to employ (among other indicators). Staff described how the forms are levelled from basic skills to

more advanced skills and that the final form (level 3) is where the specific inclusion indicators are located. Examples of indicators at this level broadly include supporting students with hearing or vision impairment and aiding struggling readers.

Nevertheless, when asked how such data are used, staff acknowledged that despite being readily available, data are not regularly analyzed specifically as they pertain to inclusion. Finally, interview participants explained that the monitoring, data collection, and data analysis typically carried out by the MEL team shifted due to programmatic changes resulting from the COVID-19 pandemic.[15] While schools were closed to in-person instruction, the MEL team focused much of their time and effort on gathering the information needed by technical staff to provide support to students and their families in alternative ways, such as by tracking how many student books were delivered from schools to homes and what percentage of parents were engaged in Facebook groups for classes.

Development projects typically collect more MEL data than they analyze and use during the course of implementation. A variety of factors tend to determine data point selection and prioritization for ongoing analysis and review. These factors can include staff time or resource availability, donor priorities and reporting requirements, and requests of the MEL team by technical staff, who make decisions about training and materials development. During interviews, senior ACR-Cambodia technical staff reflected that more could be done with the inclusion data collected by coaches through lesson observations. Staff described possible analysis and learning based on the design of the tools, both generally and with regard to data from inclusion indicators, but conceded that existing inclusion data was not being explicitly examined.

The lack of instruction-related data specific to inclusion is complicated by the MEL data on screening. Project documentation related to hearing and vision screening carried out by ACR-Cambodia indicates that very few students screened were found to have vision or hearing difficulty, an issue discussed further in this report's section on Identification. Thus, it is possible that teachers and coach observers are not sufficiently aware which students in the classroom would need the kinds of support described in the observation form indicator, or they do not have any such students. The inclusion indicators related to supporting struggling learners—such as walking around the classroom to check and provide support for students' reading—are likely to be more broadly relevant across classrooms, even where students' disability status is unknown, but are under-utilized.

However, the absence of a theory of change makes it difficult to know how or why various project choices were made. In the case of inclusion data, more information is needed to ascertain whether ACR-Cambodia staff operate with an assumption that teachers who adhere to the training and support provided by the project will inherently provide inclusive instruction, such that explicit confirmation through data analysis is not needed, or if the lack of attention to such details is an oversight, albeit a significant one. Either way, these unexamined data likely represent missed

[15] For a full review of COVID-related changes that were made, see the COVID-19 section of this report.

opportunities for learning and adapting and potentially strengthening the delivery of a programmatic element that is stated to be central to ACR-Cambodia's design.

Information Sharing

Highlights

Strength

- The project regularly and systematically communicated, especially during COVID, with various stakeholders, including USAID, internal project staff, other partners, and parents.

Missed Opportunity

- The project's communication plan would have benefitted from more explicit plans to regularly share information with DPOs.

To communicate with NGO partners, ACR-Cambodia engages in regular discussions with individual organizations and holds a bi-monthly meeting with all partners. These meetings are used to discuss activities both directly and indirectly related to the ACR-Cambodia program, serve as a space to synthesize information between the different stakeholders, and promote a more comprehensive, holistic approach to early grade learning and inclusive education program implementation within the country. Both project reports and staff interviews emphasized that the project also regularly communicates with parents of learners with and without disabilities through social media, print materials, and verbal communications according to the activity and parent context. During COVID-19, this has included the use of multimodal communication strategies through Facebook Messenger, Telegram, and phone calls to Bridge parents to support those without literacy.

Communication between ACR-Cambodia and project partners (including MoEYS) is further enhanced by the publication of its quarterly community of practice newsletter and Facebook page, which shares general information about EGR activities, disability, inclusive education, and work conducted in Cambodia to promote the education of learners with disabilities. The community of practice newsletter regularly includes issues related to disability-inclusive education, signaling that issues of inclusion are being shared in a relevant stakeholder community. Interview responses also indicated that awareness-raising contributes to buy-in from stakeholders. Interviewees believe that once there is an awareness of disability and inclusive education, stakeholders better understand the importance and usefulness of information shared through the program. For example, one respondent expressed that when stakeholders obtain an awareness and understanding of disability and inclusive education, they are more invested and better able to develop their technical skills to support the learning of children with disabilities.

Within ACR, the inclusive education team members at project headquarters and in the field are in regular communication, utilizing email, Skype, and coordinating schedules via Outlook calendars. Field team members report to the inclusive education team lead in Kampong Thom province, who in turn reports to the inclusive education director in Phnom Penh. The director also involves the inclusive technical working group, and other project administrative or operational staff are

contacted as needed. Prior to the pandemic, the inclusive education director and team lead would meet monthly. During COVID, staff shared that meeting occurred weekly in order to communicate "our activity plan, priorities, challenges, so that we can support each other as a team well and on timely manner." This responsiveness to the changing communication needs of project staff is indicative of strong adaptive management to changing conditions.

Lastly, senior ACR staff indicated that regular meetings with USAID counterparts were held every two weeks but said that ad-hoc communication also occurs as needed and that USAID maintains openness and availability for such discussions—whether face to face or over the phone. Staff expressed appreciation for the nature of their communication with USAID. They described being able to have open and honest conversations about some of the challenges experienced while working in the Cambodian context, particularly regarding the existing landscape of disability and inclusive education initiatives. This includes project staff who, in IDP's 2019 inception visit, described USAID key contacts as "really understanding", and project staff credited USAID for allowing ACR-Cambodia to focus on quality and ethical implementation over meeting pre-determined benchmarks. While ACR-Cambodia has encountered more or different challenges than originally anticipated, staff expressed not feeling pressure from USAID to determine immediate solutions and have valued the collaborative discussions with the donor.

ACR's Ethical Approach

The 2020 GEM Report on Inclusive Education stresses the need to "strike a balance" when it comes to identifying children with specific disabilities such that disability labels do not perpetuate stigma or discrimination, noting that data collection activities among students must "do no harm" (UNESCO, 2020, p. 74). Similarly, interviews with ACR staff shed light on the project team's consideration of its ethical impact on Cambodian students, especially those with disabilities. While ACR-Cambodia recognizes its responsibility to USAID to implement project activities that align with the solicitation and produce quality data, key leadership have also reflected upon the importance of taking a person-centered approach that reduces potential risk of harm to project beneficiaries. ACR-Cambodia's consideration of ethics in its program implementation was most evident when respondents discussed screening and identifying learners with disabilities. One example was the way in which ACR-Cambodia pivoted from its original plans for conducting a broader disability screening activity to scaling back the scope of screening to hearing and vision only, until such time that resourcing and services are meaningfully available in target communities for students who are identified with other support needs. A reflective understanding of the gaps in existing resourcing, and the risks of identifying students with disabilities in the absence of this resourcing, appeared to be well-understood by some interview respondents.

Sustainability

Highlights

Strength

- Materials were developed with scalability and ease of use in mind, and close engagement with MoEYS staff in all activities allowed for increased skill development.

Missed Opportunity

- The Bridge program is resource-intensive and newly developed, requiring the project to identify clear pathways for sustainability in communities.

The solicitation for ACR-Cambodia emphasized the sustainability of project activities to ensure their lasting integration into Cambodia's education system through engagement with local NGOs, private sector stakeholders, and the Cambodian government. Sustainability is a fundamental aspect of ACR-Cambodia's work with the goal of making permanent improvements to Cambodia's education system. ACR-Cambodia's original solicitation prioritizes country-owned interventions that seek to leverage partnerships to enable MoEYS to move "towards self-reliance in its own oversight of early grade learning." ACR-Cambodia is also working towards creating sustainable systems through their close working relationships with NGOs and building the capacity of MoEYS officials and local educators, including on issues related to disability-inclusive education. Sustainability is regularly emphasized in project reports on the capacity-building of government officials, teachers, and community and family members. In addition, ACR-Cambodia project staff have worked closely with MoEYS officials on the development and approval of TLMs, in-service and pre-service teacher training, and school-based professional development, all of which lend themselves to sustainable action and resources over time. ACR-Cambodia annual reports indicate significant improvement in the capacity of MoEYS to date, and subsequent stakeholder interviews have confirmed the strong promise that investment in pre-service training holds for sustainability.

The ACR-Cambodia project has also developed an *Inclusive Education Community Mobilization Strategy* to promote greater understanding of the requirements to create inclusive education systems in Cambodia. This strategy targets raising the awareness of the MoEYS leadership, NGOs, and the broader Cambodian community on how to overcome the complex challenges in providing inclusive pre-primary and primary education through partnerships, training, and capacity-building activities throughout the project that will promote sustainable changes for inclusive education. Sample activities within this strategy include mobilizing and providing tips to families and educators on the use of assistive devices, informing them of the necessary follow-up medical appointments for assistive devices, encouraging family members and educators to learn CSL, and raising stakeholder groups' capacity, awareness, and understanding of the needs of children with disabilities.

As a component of the program monitoring phase of the project cycle, key informants highlighted ACR's approach to partnership and collaboration as a key area of sustainability. ACR-Cambodia has worked with relevant stakeholders, such as relevant national ministerial officers, provincial and district-level offices, pre-service college lecturers, and teachers, with the expectation that they

would continue the inclusive and integrated classroom work currently being implemented. With this transition in mind, curriculum and support materials were designed with simplicity to ensure clarity and continuation of use. This theme was reflected as early as IDP's inception visit in 2019, during which project leadership spoke about their constant consideration of fidelity at scale and in alignment with teacher capacity, while advancing an approach the ministry would be able to sustain.

Despite these promising practices, interviewees leveled some concerns about the sustainability of disability-inclusion activities. Regarding hearing and vision screening, respondents expressed concern about the continued burden on teachers if asked to sustain screening and suggested the need to improve inter-ministerial collaboration with the Ministry of Health. According to one subnational government respondent, this includes identifying who will assume responsibility for providing assistive devices to students in the future, such as glasses or hearing aids. Multiple respondents also stressed that current programming does not address the full resourcing and support required to sustain inclusion in mainstream settings and suggested the need for more technical expertise from those with experience on inclusion in development contexts. Furthermore, interviewees levelled a variety of concerns about the challenges of sustaining the project's Bridge program, concerns that are discussed further in this report's section on Bridge.

With regard to future opportunities to build more sustainability, the importance of systems strengthening approaches was well-reflected in interviews. One respondent described the importance of district level and local leadership in sustaining literacy instructional practices particularly after the project cycle ends. Another respondent spoke in depth about the importance of training cluster-level cohorts to develop relevant expertise to support local community schools. The interviewee suggested perhaps systematizing the use of school inspectors through government budgets to support such initiatives, stating, "In each cluster, we need to have expertise … when there is a new teacher coming, [they] can support … if we suggest only the school principal [trains] in their own school, they are not motivated to do it." Cluster systems could become technical support centers that serve as communities of practice beyond the project cycle.

An interviewee from the subnational government spoke about the importance of a budget for continuous professional development opportunities to review the teaching approaches with the in-service teacher trainees, so that "we do not abandon them." In support of government-funding structures, RTI has developed a costing model for scale-up and recently introduced it to the government for future decision making. This will allow the government to make fiduciary decisions to ensure future investment in inclusive education. Further data collection through MCSIE may shed light on this model's support to sustainable investment.

The above analyses relate to sustainability as it pertains specifically to the *process* of implementing an inclusive EGR program and support to the system that underpins this implementation. MCSIE data collection has also highlighted sustainable practices and opportunities as it pertains to the project's screening, training, and instructional approaches. Each of these analyses is elaborated according to the relevant evaluation question in subsequent sections of this report.

4.3 Process: Analysis and Conclusions

Overarching finding: ACR-Cambodia has benefitted from strong project management that allows staff to leverage partnerships and communications with government, NGOs, parents and community members in a highly collaborative manner, as consistent with the requirements of USAID's project solicitation. It has generally done so despite a national environment where limited inclusive education expertise is available, a challenge which the project has confronted head-on. Although the activity's focus on supporting inclusion is consistent with the USAID solicitation, initial findings indicate that at times (and perhaps unintentionally) the activity delivers work that seems more consistent with integration or segregation than inclusion. This approach is reinforced by a MEL Plan that makes limited attempts to analyze data related to inclusion.

IDP's overall findings related to the process of developing and delivering the ACR-Cambodia project are described below:

1. **Inclusive education was added to the larger ACR project; although an important addition, the inclusive education staff were less embedded in the overall project design than if they had been focal in the initial solicitation.** In its earnest attempt to promote inclusive education for children with disabilities in Cambodia, USAID's solicitation may have inadvertently led to unintended consequences that have inhibited the execution of tasks that promote inclusive education. Inclusive education activities may have been less integrated into the overall project design than if they were included in the original ACR solicitation; the absence of a clear definition of inclusive education the ACL solicitation may have compounded this challenge. For example, inclusive education staff were not regularly involved in activities such as teacher training that might have contributed to a vision of inclusion across project activities.

2. **Technical capacity in inclusive education in Cambodia is limited and impacted staff recruitment, hiring, and program implementation.** The project drew from an extremely limited pool of qualified candidates with the necessary technical expertise to fill inclusive education roles. This resulted in internal staff reallocation, multiple rounds of recruitment, and the addition of inclusive education consultants to fill gaps. Despite delays and challenges, ACR-Cambodia was able to source technical expertise to meet the needs of the project. The varied experiences of staff did create a significant need for staff training, which some staff felt could have been better supported.

3. **ACR-Cambodia leveraged formal partnerships and additional expertise to meet the inclusive education needs of the project.** ACR's project staff benefit greatly from the variety of formal and informal partners the project convenes. While some partnerships have been strained due to programmatic disagreements related to deaf education, multiple stakeholders confirmed ACR's overall ability to work collaboratively with an array of partners in a complex and emerging sector.

4. **ACR-Cambodia worked closely and collaboratively with relevant stakeholders, especially MoEYS, to ensure local buy-in and sustainability.** This collaboration supported a comprehensive, holistic approach to early grade learning and inclusive education within the country. The ministry reviewed, vetted, and supported materials and trainings developed, and as a result, schools were more likely to adopt materials and trainings. MoEYS developed and branded project TLMs, reflecting ownership and control over materials to be used after project activities conclude. While ACR's in-service training and mentorship was noted to be at risk for continuation, the addition of a pre-service teacher training was highlighted as an effective way to educate the nation's emerging workforce that will produce results in years to come.

5. **ACR's communication with and between staff members and parents has been a strength of the project.** Due to the emerging nature of inclusive education in country, timely and continuous communication was required to execute programmatic activities. ACR conducted communication with staff over a variety of platforms such as emails, Skype, coordinated meeting calendars, and more. This was particularly vital once the COVID-19 pandemic hit and programmatic activities were required to adapt in real time.

6. **ACR-Cambodia leadership reflected an awareness and appreciation of the strong ethical influence they held in decisions related to inclusive education for children with disabilities.** The project has stressed the importance of a person-centered approach while country-level capacity in inclusive education is advanced and has chosen approaches driven by quality over meeting large-scale metrics, most notably in the evolving approach to screening and identifying children with disabilities. ACR-Cambodia pivoted from its original plans for conducting a broader disability-screening activity to scaling back the scope of screening to hearing and vision only until such time that resourcing and services are meaningfully available in target communities for students who are identified with other support needs. To minimize the exclusion of these other disability groups, some project staff referenced an alignment with UDL approaches to include students of all learning styles and abilities, which would enable classroom teachers to provide support even if a disability is not identified.

7. **ACR-Cambodia's MEL Plan lacks explicit plans for evaluating its inclusive education efforts.** While the MEL Plan does include output indicators for tracking the numbers of teachers trained, there are no outcome indicators specific to learners with disabilities. Technical staff have chosen not to prioritize analyzing data showing the extent to which teachers are implementing inclusive teaching practices within a project that emphasizes inclusion throughout its design.

8. **Data on inclusive teaching is collected but not systematically analyzed.** The school-based observation tool used by coaches includes indicators tied to the inclusion tips contained within the teachers' guides. However, the project does not analyze data specific to inclusive indicators collected in the observation forms, which may represent a missed opportunity to understand the extent to which teachers implement inclusive practices

specifically or the way in which coaching affected this implementation. This decision is unfortunate and perplexing, particularly given that there are no explicit outcome indicators tied to inclusion.

9. **ACR-Cambodia's research agenda would benefit from studies that consider themes related to inclusive education for children with disabilities.** Inclusive education, as an emergent field in development contexts, would benefit from additional research studies related to children with disabilities prior to and along with intervention. For example, possibilities include qualitative interviews with the parents of learners identified as having hearing or vision difficulties during the project; research related to sign language education through Bridge activities; participatory action-based research involving classroom teachers; or outcomes studies of literacy interventions in classrooms.

10. **Stakeholders raised concerns regarding the continuation and sustainability of disability-inclusion activities.** Numerous interviewees voiced concerns about the continued burden on teachers to sustain screening activities (which have consistently proven challenging to implement), the provision of assistive devices for children in the future, and the support and technical capacity necessary to ensure inclusion does take place in mainstream settings. As covered in the Bridge section of this report, the sustainability of teachers with the capacity to support students who are deaf is also an ongoing concern.

4.4 Process: Initial Lessons Learned

The process of reviewing information for this interim report revealed some initial lessons learned that can be applied to both future programming in Cambodia as well a broader global audience working on inclusive education projects. Exhibit 8 provides initial lessons learned based upon the report findings related to Process. These lessons learned are gleaned from both project strengths and missed opportunities. In some cases, the "lesson learned" described is a strategy that ACR-Cambodia already successfully utilized; nonetheless, its use serves as important guidance for future projects.

Exhibit 8. Initial Findings and Lessons Learned for Process

Finding	Lesson Learned
1) Inclusive education was added to the larger ACR project; although an important addition, the inclusive education staff were less embedded in the overall project design than if they had been focal in the initial solicitation.	Integrating inclusive principles in EGR programs can be an effective way of leveraging funds to reach a broader student population. However, to meaningfully promote inclusion in larger projects, inclusive principles must be embedded in the original design and all aspects of programming. While adding inclusion to existing projects may lead to less sustained impact than embedding such a focus from the start, it is nonetheless a viable option, but the entire project must be reviewed to find opportunities to cohesively support learners with disabilities.
2) Technical capacity in inclusive education in Cambodia is limited and impacted staff recruitment, hiring, and program implementation.	In many countries, inclusive education is an emerging concept. It is important to allow for ample time to train all staff—not just those focused on inclusion—on the CRPD and other best practices at the beginning of the program and engage international technical expertise to strengthen knowledge.
3) ACR-Cambodia leveraged formal partnerships and additional expertise to meet the inclusive education needs of the project.	It is important to have a variety of local and international partners with the appropriate technical expertise and contextual knowledge to support inclusion projects.
4) ACR-Cambodia worked closely and collaboratively with relevant stakeholders, especially MoEYS, to ensure local buy-in and sustainability.	Having a strong, communicative relationship with relevant government counterparts can strengthen project implementation and support sustainability.
5) ACR's communication with and between staff members and parents has been a strength of the project.	It is essential that projects produce detailed communication plans at start-up that also map strategies to communicate with parents of children with disabilities.
6) ACR-Cambodia leadership reflected an awareness and appreciation of the strong ethical influence they held in decisions related to inclusive education for children with disabilities.	Projects must embed regular progress checks and monitoring to assess their support to child-centered approaches, ensure they do not inadvertently cause harm, and identify strategies to quickly rectify any potential risk.
7) ACR-Cambodia's MEL Plan lacks explicit plans for evaluating its inclusive education efforts.	All inclusive education projects, integrated or stand-alone, should have specific indicators on inclusive teaching and learning practices within the MEL Plan.[16]
8) Data on inclusive teaching is collected but not systematically analyzed.	Data on inclusive teaching should be regularly collected and analyzed to assess progress and identify needs.

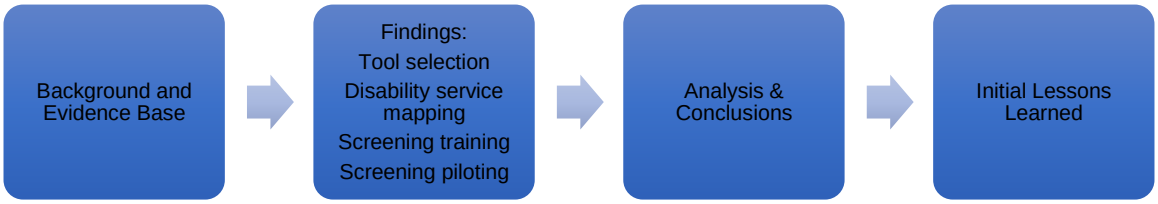
[16] Recognizing the challenges inherent in linking MEL indicators to students with disabilities where such populations are not widely identified, proxy indicators can include teachers demonstrating UDL strategies or struggling learners with improved literacy outcomes, for example.

9) ACR-Cambodia's research agenda would benefit from studies that consider themes related to inclusive education for children with disabilities.	Projects that have research components should prioritize studies related to inclusive education, given the emerging nature of the field and limited existing evidence base.
10) Stakeholders raised concerns regarding the continuation and sustainability of disability-inclusion activities.	Sustainability plans should be a part of proposal and project start-up phases to identify strategies to sustain activities beyond the project lifetime.

5. Evaluation Question 2: Screening and Identification

This section introduces a global overview of the purpose and practices associated with screening and identification. The section is intended to provide a basis for understanding global trends related to screening and identification and a framework for communicating the rationale for the evaluation conclusions drawn by IDP. This general introduction section is followed by overviews of screening and identification in Cambodia specific to the ACR project. Exhibit 9 provides a visual overview of the screening and identification section of the report.

Exhibit 9. Overview of Screening and Identification Section



5.1 Background on Screening and Identification for Learners with Disabilities

This section provides a general overview of evidence-based practices for screening and identification for learners with disabilities, which help to undergird the evaluation of ACR-Cambodia' screening approaches. This section also provides a general overview of the ACR-Cambodia approach to screening and identification.

The intended purpose of school-based screening is to identify students with vision and hearing challenges, refer them to medical professionals for a diagnostic exam and treatment, and provide teachers information to modify the classroom environment and more effectively support these students. In Cambodia, other screening instruments, such as the Angkor Hospital for Children's Developmental Milestone Assessment Tool (AHC DMAT), have been adapted for community-based use to identify difficulties beyond hearing and vision, but their use is not widespread and referral services are not widely available (Nguon, de Mey, Baesel, Khann, & Stoey, 2020). There are risks associated with identifying students with disabilities without the ability to provide appropriate referral services and resourcing, such as risks of exclusion or stigmatization (Hayes et al., 2018), challenges that the ACR-Cambodia leadership understood and referenced in interviews with the MCSIE team. It is in this context that the ACR-Cambodia program opted to focus on hearing and vision screening in schools, as these functional difficulties are most likely to be both identified and treated by community medical professionals. Given the ACR-Cambodia project's focus on screening for hearing or vision difficulties, the following sections will focus only on these types of screening.

5.1.1 Evidence Base: General Good Practices on Screening and Identification of Learners with Disabilities

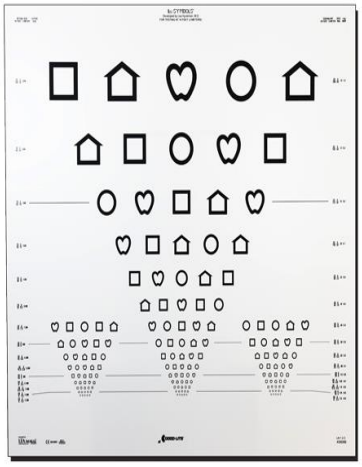
In a global context, for referral to occur, the school or project conducting the screening can perform a referral mapping in advance of screening. This mapping should include medical clinics and NGOs that provide hearing and vision diagnosis and treatment, including the provision of glasses and hearing aids. These referral resources can be shared within schools to ensure parents and the broader community have access to this information (Hayes et al., 2018).

Ethical Considerations for Screening and Identification

Screening and identification play a complicated, yet necessary, role in inclusive education and includes an added risk of discrimination. Minow (1990) highlighted a "dilemma of difference" that occurs when people with disabilities must live with a label in order to receive services. Ideally, screening and assessment are used as part of a feedback loop between assessors and teachers that allows for educational changes that promote inclusion for children with identified disabilities. For example, a child who is suspected of having a visual disability through screening might be assessed, receive needed glasses and school-based accommodations, and then be screened again with glasses later to see if any updates are needed.

For vision screening, the evidence base shows that the LEA Symbols chart is an effective screening tool particularly for young children because it uses symbols for pre-literate learners, rather than letters, numbers, or spatial orientation (testing the direction of a letter). The LEA chart is made up of four symbols: an apple, a circle, a house, and a square, which children can identify either verbally or by pointing to a matching picture card (see Exhibit 10). Since the tool uses symbols rather than anything culturally or alphabetically specific, the tool can be used across contexts and language groups (Nottingham Chaplin & Bradford, 2011).

Exhibit 10. LEA Chart

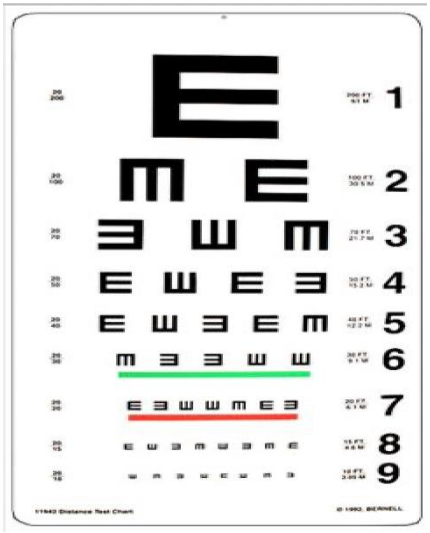


In contrast, the Snellen Tumbling E chart (see Exhibit 11), although used in many countries, is generally not recommended for use with children under the age of eight, as it requires spatial orientation skills young children have not yet developed (Nottingham Chaplin & Bradford, 2011).

Additionally, the letter E is not a letter found in the alphabet in many languages, including Khmer in Cambodia. In a study of 62 children and adults, the LEA symbols had been shown to measure visual acuity at least one line more accurately than the Tumbling E chart (Dobson, Maguire, Orel-Bixler, Quinn, & Ying, 2003).

As for hearing screening, low-tech methods—such as parent reports and noisemakers—are largely evaluated as ineffective ways to identify hearing levels (Gomes & Lichtig, 2005; Krishnan & Donaldson, 2013; Richburg, Davie, & Smiley, 2011; Muñoz, Caballero & White, 2014). Parent reports are not consistently accurate because many children have sloping hearing levels that may allow them to still hear low-frequency sounds. Such sloping hearing levels may give children the appearance of having normal hearing even if they are unable to hear high-frequency sounds necessary for understanding speech and language (Gomes & Lichtig, 2005; Muñoz, Caballero & White, 2014). Additionally, the use of noisemakers has been shown to be unreliable and inaccurate due to the inability to test individual ears or calibrate the noise produced. Noisemakers are made up of multiple frequencies, and the intensity of the sound cannot be controlled. As a result, the screener cannot identify which level a child is responding to, and unilateral or mild hearing loss may remain unidentified (Krishnan & Donaldson, 2013; Richburg et al., 2011).

Exhibit 11. Tumbling E Chart



Current research recommends app-based hearing screening paired with calibrated headphones as an effective screening practice, as it is standardized and uses pure tones. One of the most reliable and valid apps is HearScreen, which is based in South Africa and has been used in 38 countries. This app was developed for use with community health workers and has been validated on over 1,000 school-aged children (Bright & Pallawela, 2016). Unlike other apps, HearScreen has internal monitoring of noise levels and can inform screeners when noise levels interfere with screening. This is a common concern of school-based screening, which occurs outside of soundproof booths.

However, app-based hearing screening is not without its challenges. The HearScreen headphones need to be regularly calibrated to ensure accurate results, and this calibration must

be performed by HearScreen professionals. HearScreen recommends yearly calibration to guarantee reliability, which requires the screening kits to be mailed to South Africa. Additionally, the cost of the screening kits (starting at $860[17] per kit, not including software subscription or shipping) makes scalability difficult. Finally, another challenge with the use of apps, such as HearScreen, is the administration of tests in schools that have a large amount of background noise, which is common in many countries with high enrollment rates and classrooms situated closely or adjacent to one another. Although HearScreen indicates when background noise interferes with hearing screening, it does not currently have the capability to limit this interference.

Research also shows that screeners need initial or refresher training at least one time per year, and significant training time should be devoted to practicing the screening techniques (Teerawattananon et al., 2014). Longer trainings with more hands-on practice can help to improve the accuracy of teacher-led screening (Teerawattananon et al., 2014). Several studies attributed the high rates of false negatives to the poor quality of training and the need to improve the confidence of teachers when implementing screening (Kaur et al., 2016; Sudhan et al., 2009).

Literature has found that teacher-led screening leads to more false positive and false negative results than screening conducted by health professionals, such as ophthalmologists and health workers (Kaur et al., 2016; Marmamula et al., 2018). One study in India found that two-thirds of referrals following teacher-led vision screening were unnecessary (Sudhan et al., 2009), while a study in Thailand found that teachers were more likely than health care professionals to *miss* children with mild vision difficulties (Teerawattananon et al., 2014). Conversely, health care workers had better diagnostic accuracy (Marmamula et al., 2018; Ore et al., 2008), which one study attributed to the experience they gain over time by consistently screening children as a part of their jobs (Marmamula et al., 2018).

5.2 Findings on Screening and Identification for Learners with Disabilities

The following section provides a summary of findings regarding ACR-Cambodia's screening activities, organized by the order in which the activities took place. These activities include tool selection, the mapping of disability services and referral processes, field testing and piloting of a screening methodology, and conducting related training.

5.2.1 Tool Selection

Highlights

Strength

- Screening tools were selected using a consultative process with relevant NGOs and were selected with scalability and contextual relevancy in mind; the use of the LEA Symbols chart is supported by an international evidence base.

Missed Opportunity

- Hearing tools selected for use in the project's screening pilot are not considered reliable.

[17] See https://www.hearxgroup.com/shop/hardware

Before undertaking screening and referral activities, the ACR project consulted with a variety of organizations that were already screening and conducting more comprehensive assessments aimed at identifying children with disabilities. For example, before starting any activities, ACR consulted with Krousar Thmey, Save the Children, the Hope Foundation, the Starkey Foundation, All Ears Cambodia, and the Fred Hollows Foundation. According to KIIs, the screening process developed was the result of piloting and internal conversations about which tool would be most appropriate, cost-effective, and easy for teachers to use within their existing classroom frameworks. In the end, a non-alphabetic eye chart was chosen because the Tumbling E chart was deemed inappropriate for users of the Khmer language.

ACR-Cambodia used the LEA Symbols chart (a non-alphabetic screening tool) for vision screening, which is consistent with the evidence base referenced in section 5.1.1. Specifically, based on the rubric scores and supported by research evidence, IDP found that the LEA chart does not require spatial orientation or knowledge of the alphabet and provided the option for non-verbal responses by pointing to or matching symbols. Additionally, the lines of the text and the positioning of symbols were proportionally spaced.

The project selection of the informal hearing screening procedure was also purposeful. The procedure was selected after a long deliberation of different options. At one point, app-based[18] programs were considered but ruled out because as one staff member familiar with an app-based program stated, “It’s on a cell phone, and they have calibrated headphones. And you need a very quiet place, which is one of the big issues. And it’s also just very expensive.” This staff member also expressed concerns about the sustainability of such initiatives at scale in Cambodia beyond the life of the ACR project.

Ultimately, for the hearing screening tool, a teacher stood behind and to the right or left of the student, out of sight, and made a “psss” sound. If the child heard the sound, the child raised the corresponding hand on the side in which the sound was heard. Similarly, a teacher clapped on one side and then the other of a child, and the child raised a hand to indicate the side from which the child heard the clap. Schools sent a letter to parents of children who were unable to hear the “psss” sound or clapping, and the school requested permission to further test the child.

Based on available evidence worldwide related to hearing screenings, the hearing screening tools used had limitations. Specifically, based on the rubric scores and supported by research evidence, IDP found these tools did not use standard, pure, and isolated tones, did not test individual ears, and did not administer a clear pass/fail criterion for each screening[19]. Additionally, parent and teacher reports (also included in this ACR pilot) have been shown to be inaccurate and, in some cases, missing most cases of mild hearing loss (Lo et al., 2006; Muñoz, Caballero

[18] The documentation provided by ACR-Cambodia did not specify which app-based programs were considered for the project.

[19] IDP is aware that there are limited tools available globally which meet these specific criteria, and cost-effectiveness and scalability are a global challenge and area of need. The HearScreen technologies are consistent with IDP’s rubric criteria but are costly and require recurrent calibration in South Africa.

& White, 2014). The tools used do not have standardized sound, internal calibration to ensure consistent noise intensity, or the capability to identify both high and low frequencies. Annex C provides a detailed description on the full pilot process and includes full scoring criteria for both hearing and vision screening.

5.2.2 Mapping of Disability Services and Feedback Loop

Highlights

Strength

- Mapping available referral services helped to draw from existing local resources, and the project successfully supported some students to receive needed supports.

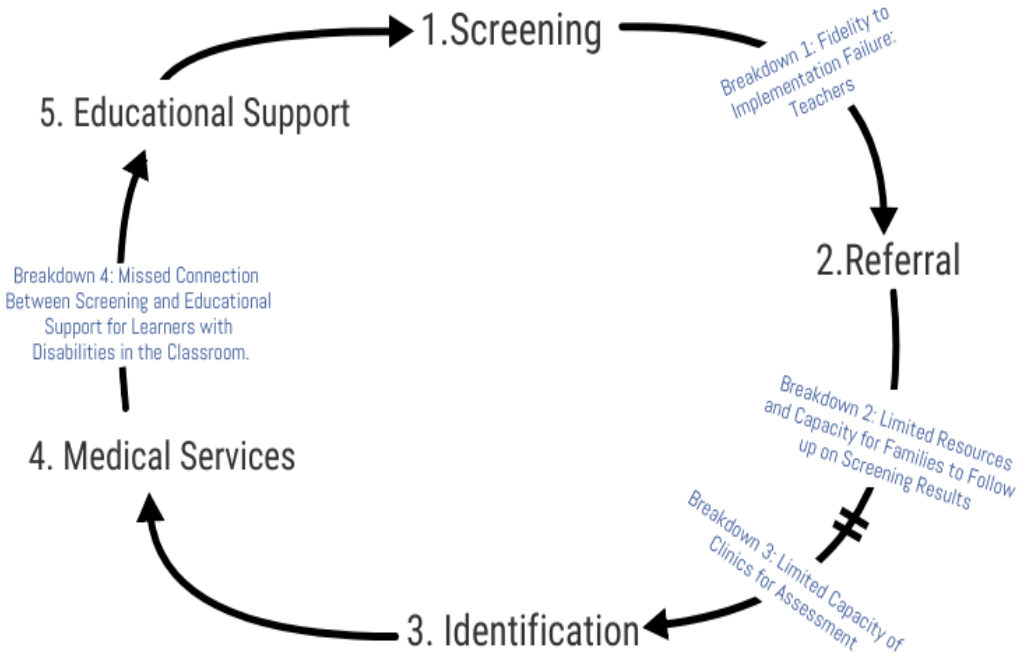
Missed Opportunity

- The project may have underestimated the level of management and supervision required to implement teacher-led screening with fidelity.

In advance of implementing screening activities, ACR conducted a scoping or "mapping" of disability services for learners with disabilities in the Kampong Thom Province and used the information to create a local referral source: the Online Disability Service Directory for Cambodia. Teachers and school directors were introduced to this resource in screening trainings. ACR also met with local NGOs/service providers in the two pilot districts to determine their capability to provide further assessment and/or assistive devices (for vision: Eye Hospital in Kampong Thom and Fred Hollows Foundation; for hearing: Hope Cambodia and All Ears Cambodia). This approach is consistent with evidence-based good practices.

KIIs revealed that the design of the screening component of the ACR project was created to include a feedback loop comprised of screening, referral, identification, education support, and medical services (Exhibit 12). One respondent described the structure as it was designed by ACR: first, teachers screened students; follow-up (i.e., referrals) occurred as needed; "students receive[d] study materials"; and "students with disabilities easily learn[ed] with children without disabilities." Another respondent commented on the strong logic behind the ACR model: "[ACR] asked teachers to make preliminary conclusions from the school, and then [ACR] cooperated with the Kampong Thom Provincial Health Center to check whether it is true to identify that [disability] … The ministry is thinking to itself that RTI can do it at this place, which is good for children." In a few instances, the loop was closed. A project staff member reported that in some instances the project team received screening information from teachers and followed up with parents to pursue further testing for children. The ACR team then also provided additional support to teachers.

Exhibit 12. Screening and Identification Feedback Loop



Screening-assessment-instruction feedback loops, however, can be broken at any point in the cycle. This process requires buy-in from a wide range of stakeholders as well as an agreed-upon intentionality about the purpose of establishing screening and assessment procedures. KIIs provided valuable insights and lessons learned from this part of the project and revealed places where ACR's logical plan hit barriers. These barriers included 1) lack of teacher knowledge and capacity to conduct classroom-based screening following screening training, 2) limited capacity of parents of learners identified as having potential disabilities to follow-up on screening results, 3) limited capacity of clinics to perform medical diagnostics or identification, and 4) screening and identification information not designed to funnel educational strategies back to teachers.

At the point of implementation, teachers were trained on how to screen for suspected visual and hearing disabilities, but one respondent shared, "Honestly, we don't know exactly whether the teachers conducted the screening or not." This reflection aligned with data reported in ACR quarterly reports, which cast doubt on whether teachers who were left unmonitored genuinely completed the screening activities, such as in cases where an entire classroom of students was reported to have identical results. A second respondent validated the challenges with the teacher approach saying, "We just follow up with [teachers], but they said that no students were caught from the screening … zero students from this approach." This respondent suggested teachers disengaged from the process: "Teachers may feel like this is not their job or because they feel like that's a lot for them to do."

The second location where screening-assessment-instruction feedback loops can be broken was related to the capacity of parents to follow-up on screening results when available. The project attempted to reduce barriers to assessment for parents by providing transportation, but the nearest clinics for assessments—especially for hearing—were far from the schools. One staff member worried about follow-up after the initial transportation was covered: "You know, you can educate the parents, but if they are living in poverty, they may not have the means."

The third point of breakage in the screening-assessment-instruction loop appeared to be related to the capacity of clinics to perform assessments. Staffing at clinics was often not at capacity to handle new referrals when they arrived. One staff member reflected, "It was becoming quite challenging as referrals were made. There wasn't really anyone or anywhere that those referrals could then be acted upon or followed up on." This gap is possibly explained by the complications of crossing ministerial lines in government programs. School-based screenings were under the auspices of MoEYS, but clinics were part of the Ministry of Health. At the time of this project, one respondent noted there was an attempt to create inter-ministerial guidelines for programs to link schools and clinics, but these guidelines do not yet exist.

The final breakage point was related to inclusive instructional changes that could occur because of assessment data. KII respondents described the current referral and identification system as one that links children with NGOs that provide services for learners with specific disabilities. These NGOs, according to KIIs, "have a significantly long waiting list ... and so they actually cannot take on a number of the students that are identified." Some KII participants observed that the screening activity appeared to miss its definitive goal: screening and assessment information should be used to funnel educational strategies back to teachers.

In summary, the ACR project was designed to screen, to identify, and then to provide feedback to teachers about educational strategies to enhance opportunities for learners with specific disabilities. This evaluation identified several places where the design was unable to come to fruition. The screening-assessment-instruction loop was broken as follows:

- A lack of fidelity of implementation by teachers.
- Limitations in the hearing tool selected that was not sensitive enough for adequate hearing screening.
- Lack of easily accessible and well-staffed clinics for follow-up assessment.
- Time delays between diagnosis (at the clinic) and service provision (typically by an NGO).
- Disconnect between the purpose of screening and its impact on or use in classroom instructional practice.

In all these ways, the ideal feedback loop for screening, identification, services, and instruction was not achieved. This hindered the project's larger goal of identifying learners to provide the

support and services necessary for increasing learning outcomes of students with and without disabilities.

5.2.3 Screening Training

Highlights

Strength

- Training for hearing and vision screening was well planned and executed, including the provision of detailed manuals and engagement of relevant government counterparts.

Missed Opportunity

- DPO engagement was largely absent from trainings, and the sustained use of the project's screening approach or guide is uncertain.

ACR implemented three one-day screening workshops (October 2018) in the two pilot districts (Kampong Svay and Stueng Saen), training 199 preschool and grade 1 teachers (the target was 220) and 90 school directors (the target was 102) on screening and referral. Women comprised 49% and 17% of the teachers and school directors who participated in the training, respectively.[20] In addition to teachers and school directors, 26 representatives from relevant national and subnational government entities (the Early Childhood Education Department [ECED], Provincial Office of Education [POE], SED, and the District Office of Education [DOE]) also participated mostly as observers in the screening training as did 19 representatives from the CCWC as well.[21]

The ACR-Cambodia team demonstrated strong project management skills when implementing screening training. This is evidenced by the screening trainings reaching their intended beneficiaries (teachers and school directors), the engagement of government stakeholders and community leaders in the training process, the appropriate geographical span, and nearly reaching the intended number of participants outlined in reports. Further, the trainings were successful in implementing events on the timeframe, frequency, and intended duration needed for information dissemination. In terms of gender participation, training participant gender demographics were similar to those within the professions in Cambodia (a majority of teachers in primary schools are female, while a majority of head teachers are male).

As for another project management feature, master trainers conducted the training workshops and were supplied with a detailed training manual and materials needed to be effective. The manual directly linked training content to the inclusion tips for learners with vision and hearing disabilities contained in some of the teachers' guides and was supplemented by videos detailing the screening and referral process. All trainings were conducted in Khmer to ensure linguistic accessibility for teachers.

[20] The latter percentage is reasonably consistent with education statistics from Kampong Thom Province, where only 28% of non-teaching primary school staff are women (MoEYS, 2019).

[21] Established in 2004, CCWCs monitor the situation of children and women within their respective commune and advise the Commune Council on issues relating to services and support that meet the needs of these children and women.

There were, however, some project management gaps. For example, DPOs were largely not included in trainings. This is relevant as DPOs can provide important perspectives on the lived experiences of learners being screened, the importance of early detection, and strategies to combat stigma and discrimination in the community. The screening training also focused heavily on eye/ear health and referral, which is important, but provided minimal information to training participants about the implications of hearing and vision disabilities and their impacts on literacy instruction. The 45-page Screening Training Manual only contained two paragraphs on what to do if a child has a suspected vision or hearing disability. Instead of elaborating on this content in the manual itself, and alternative would have been to link the manual to further guidance in teachers' guides, but this also did not appear to be the case.

Beyond the immediate trainings, reports did not indicate if any of the screening training materials or content would be further integrated into government pre-service or in-service training, thus increasing opportunity for project sustainability. This may have been a missed opportunity to link screening and training materials to ACR's broader literacy goals.

5.2.4 Screening and Identification Pilot Implementation

Highlights

Strength

- The project demonstrated adaptive management skills by pursuing alternative screening approaches after the first pilot located few students.

Missed Opportunity

- The number of children identified with hearing or vision disabilities is significantly lower than anticipated for the sample screened, suggesting some students with hearing or vision disabilities were missed and may not receive needed supports and accommodations.

ACR-Cambodia piloted several screening tools in two selected districts (Kampong Svay and Stueng Saen) of the Kampong Thom Province during the 2018-2019 school year. The purpose of the ACR screening pilot was to determine if teachers could be trained to implement screening with fidelity to identify children who may have hearing or vision difficulties. ACR also wanted to test the procedures that would enable referrals for further evaluation, support, and devices for learners who may have hearing and vision difficulties.

Screening took place in 103 schools (28 in Stueng Saen and 75 in Kampong Svay). The project screened 5,594 of a possible 5,804 children during the full pilot test. Children who were not screened were absent, but ACR reported "10 students were perceived to have an intellectual disability that made it difficult to participate in the screening" (Screening Report, p. 3). A total of 96% of preschool students and 96% of grade 1 students were screened overall. According to ACR's screening report, 32 (0.57%) of the 5,594 students screened in the two districts were referred for additional assessment. Of these, 23 (0.41%) students were referred for a vision assessment, which resulted in 16 children (0.29%) being identified with vision challenges (Exhibit

13). Eleven (0.29%) children were referred for a diagnostic hearing test, which resulted in four (0.07%) learners being identified as hard of hearing and one learner with another medical condition (wax) (Exhibit 14).

Exhibit 13. ACR's Screening Report Exhibit on Vision Referral (p. 5)

Vision					
Total screened	**Referred**	**Medical assessment**	**Total receiving assistive devices**	**Further referral**	**False positives**
5,594	23 (0.4% of all children screened)	23	15 (0.27%)	1 (eye condition not corrected by glasses)	7
			16 (0.29%) children identified with vision impairment		

Exhibit 14. ACR's Screening Report Exhibit on Hearing Referral (p. 5)

Hearing					
Screened	**Referred**	**Medical assessment**	**Total receiving assistive devices**	**Other medical condition**	**False positives**
5,594	11 (0.2% of all the children screened)	11	4 (0.07%)	1 (wax)	6

ACR reported mixed results from piloting the screening tools and procedures, including referral. Rates of learners identified as having a hearing or vision disability (prevalence rates) were lower than expected and scores reported made ACR suspect teachers were not implementing screening with fidelity. ACR hypothesized that one reason for this low rate of identification was inconsistent screening by teachers (ACR reported that all learners in one class had the same results). At the same time, ACR's Screening Report indicated other countries with similar projects yielded similar results in rates of identification. Globally, World Health Organization (WHO) data indicates that prevalence rates are higher than what was found in Cambodia (WHO & World Bank, 2011). In general, the prevalence of hearing and vision disabilities among young children is lower than among other age groups, but not as low as screening results indicated. Furthermore, the Screening Report acknowledged that monitoring teachers was associated with fewer false positive identifications and more accurate identification of learners needing supplemental testing, support, or devices.

Because initial screening results were determined to be inaccurate, the project re-screened a subsample of 504 students from six of the participating schools six months after the initial screening and found an additional eight students in need of referral. Interviews with teachers and

input from the inclusive education field team indicated that teachers were not "performing the screening accurately" (Screening Report, p. 4).

Based on the pilot results, ACR concluded that teacher-led screening is not a cost-effective or reliable method and that the project should explore other options (such as health-center-led screening) and recommended using local health care providers to conduct screening. They also recommended supporting teachers to make instructional modifications that benefit all students, including struggling learners and students with disabilities. Based on these results and recommendations, ACR, in conjunction with MoEYS, devised four alternative strategies to screening and referral and piloted them in FY19:

1. **Providing referral information and support to teachers in Kampong Thom.** Pilot results indicated some teachers knew of learners they suspected to have a disability even before the screening had been conducted but lacked information and support with referral. To respond to this issue, ACR prepared an information package that included a list of available referral services and a telephone number that teachers could call if they thought a child in their class may have a disability. The information packaged was provided to all teachers in Kampong Thom who had not previously been trained in screening and referral by ACR at a refresher teacher training workshop.

2. **Providing refresher training in video format to teachers *already trained* in screening and referral in the pilot districts.** Pilot results indicated that even though teacher-led screening proved not to be cost-effective and reliable some referrals had been made. This provided the rationale for ACR to invest in refresher training for teachers and school directors who had already been trained in screening and referral in the two pilot districts in Kampong Thom (Kampong Svay and Stueng Saen). Specifically, teachers received a link to a refresher video at the beginning of the 2019-2020 school year with a request to screen new students.

3. **Piloting health-center-led screening in five select schools in the pilot districts.** Pilot results suggested that the roles of health care professionals are more closely aligned with screening and referral activities than the roles of classroom teachers. Thus, ACR recruited five schools that had already participated in the screening pilot and their respective local health centers to help pilot an approach that used health center staff to conduct the screening and referral

4. **Providing professional development on instructional modifications to 41 select teachers *already trained* in screening and referral in the pilot districts.** ACR recruited 41 teacher volunteers from the two pilot districts to participate in monthly professional development workshops specifically focused on instructional modifications. This activity was supposed to run parallel to the teachers screening children in their classrooms for disability with the support from ACR's inclusive education field team.

The screenings led by health care professionals in five schools led to zero referrals, as did screenings in two districts that were led by trained teachers provided with a video refresher. Once ACR discovered that teacher and health care screening participation was uneven or lacking entirely, ACR shifted to a different strategy. Rather than have teachers perform screenings in the classroom, the project simply told teachers "if there's a child that you think has a disability in your class ... you can call this number and we can talk about referral services." Providing a simple point of contact to teachers for follow-up without conducting screenings with students resulted in the later identification of seven learners who had support needs. This approach has obvious risks that relate to over- or under-identification of children by teachers based on their observations. At the same time, the approach aligns with strategies teachers had been using before the ACR approach, with the added support of a specific number to call in the event of a concern. It also responds to the observed challenges around high-cost investments in formalized screening programs that lead to few referrals. Further data collection on this approach is warranted.

5.2.5 Sustainability of Screening Initiatives

At this point within the evaluation, sustainability of screening practices cannot be determined. The screening pilot found that teacher-led screening is not the most cost-effective and reliable method. Health-center-led screening did not yield better results. While ACR did devise four alternative strategies in response to feedback they received on screening and referral, ultimately, recent project reports suggest that more time and data would be helpful to understand the varying utility of these approaches, especially as some activities have been halted during the pandemic. ACR's work, however, yielded important systemic insights that will inform the disability service feedback loop.

5.3 Screening and Identification: Analysis and Conclusions

Overarching finding: The ACR-Cambodia screening activities have yet to rise to a level of effectiveness that significantly expands the reach of inclusive education efforts for learners with hearing or vision difficulties, a challenge of which interviews and reports suggest project staff are already aware. Once learners are screened in schools, the project has reinforced the fact that the broader referral and specialist health service sector in Cambodia lacks preparedness to scale screening efforts. Despite the known limitations around teacher-led screening, ACR-Cambodia's forthcoming writing on these challenges offers significant evidence to a global community of practice interested in learning what approaches to pilot in their own projects and, importantly, what *not* to pilot.

ACR-Cambodia has demonstrated both rigor and persistent dedication to piloting screening methodologies and supporting the feedback loop that leads to disability services. The ultimate solution for identifying learners with disabilities has yet to be found, but much can be learned from ACR's activities to date. IDP's analysis has been written in the form of findings and are presented as follows:

1. **Implementation of screening training was bolstered by ACR-Cambodia's overall effective project management.** ACR-Cambodia actively engaged government,

community, and NGO leadership in the training process, reached the targeted geographic and demographic populations, and nearly reached the intended number of participants. Given unforeseen challenges, such as delays in obtaining parent consent or linking students to appropriate referral services, the project-management approach met many intended goals.

2. **Although stakeholder engagement for screening was robust, the engagement of additional stakeholders in training could have been improved.** DPOs provide important perspectives on the lived experiences of children being screened, the importance of early detection, and strategies to combat stigma and discrimination in the community. Further, involving parent leaders and hospital/service provider staff in the training, particularly in the discussions of the referral process, could have enhanced teachers' training experience, their knowledge of the consent and referral processes, and their familiarity with referral sources and partners. Engaging additional stakeholders in screening training and piloting may have helped teachers to better appreciate the purpose and utility of the screening exercise.

3. **Screening training could have been improved with more opportunity to practice.** A second area for improvement would have been for the teachers to practice screening approaches on children with structured feedback during training, which may help to improve screening accuracy (Teerawattananon et al., 2014). Peers in the training were both familiar with the activities and likely cooperative participants for screening practice. Practice opportunities with children may have helped teachers to better understand the time, approach, and strategies needed to successfully screen large numbers of children.

4. **Screening training importantly focused heavily on eye/ear health and referral but could have provided further information to teachers about the implications of hearing and vision disabilities on literacy instruction.** While solutions to how to identify learners with disabilities are still to be explored, much could be done to educate teachers on the connection between screening and supporting learners with disabilities in the classroom. This would both improve teacher buy-in to screening activities and improve responsive classroom instruction. Explicitly addressing the educational purposes for screening and the pedagogical adaptations that can be made based on screening results in the Screening Training Manual would have helped link the objectives of the screening trainings to the practical objectives for supporting all learners in the classroom setting.

5. **While the LEA Symbols chart was appropriate for vision screening, the noise test for hearing screening had limitations.** The noise test proved to be challenging because of the inability to standardize or calibrate sounds. Complementary to the noise test, an informal parent questionnaire was also problematic, as accuracy of parent responses could not be assured.

6. **The screening pilot provided useful feedback about limitations of a teacher-led approach, which may be relevant to other projects.** Project reports and staff interviews

were forthcoming in reflecting upon the conclusion that teacher-led screening is not the most cost-effective and reliable method. The project also provided data to show that rates of children identified through screening were lower than expected, in part, because of inconsistent screening by teachers. Monitoring of teachers was associated with fewer false positive identifications and more accurate identification of children needing supplemental testing, support, or devices.

7. **Screening, identification, and instruction ideally work in a closed feedback loop.** ACR-Cambodia's pilot helped to expose systemic constraints to a scaled approach to screening in Cambodia. ACR's screening approach was developed in consultation with stakeholders, with an understanding of what was already happening in Cambodia, and with consideration for sustainability and capacity. However, to improve such a feedback loop, more buy-in from stakeholders, time for coordination, and agreement on the purpose and utility of screening activities is needed.

As governments and inclusive education projects globally continue to contemplate effective student screening practices, the extent to which ACR data casts doubt on the utility of teacher-led or even health-center-led screening activities is highly pertinent and worthy of further exploration. These findings do not suggest that ACR has missed opportunities related to its piloting of various screening professionals, but rather needs to continue searching for the answer that will yield the most accurate screening results in this context.

5.4 Screening and Identification: Initial Lessons Learned

The process of reviewing information for this interim report revealed some initial lessons learned that can be applied to both future programming in Cambodia and a broader global audience working on inclusive education projects. Exhibit 15 provides initial lessons learned based upon the report findings related to Screening and Identification. These lessons learned are gleaned from both project strengths and missed opportunities. In some cases, the "lesson learned" described is a strategy that ACR-Cambodia already successfully utilized; nonetheless, its use serves as important guidance for other future projects.

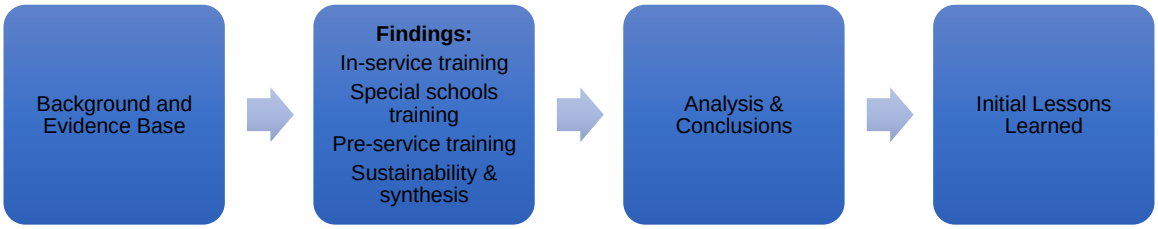
Exhibit 15. Findings and Lessons Learned from Screening and Identification

Finding	Lesson Learned
1) Implementation of screening training was bolstered by ACR-Cambodia's overall effective project management.	Projects choosing to implement screening activities must budget for ample project management supports and anticipate the need for adaptive management for changing and emergent conditions.
2) Although stakeholder engagement for screening was robust, the engagement of additional stakeholders in training could have been improved.	Mapping out all relevant stakeholders in the screening-identification-referral process, including persons with disabilities, DPOs, parents, and medical professionals, can support the implementation of screening initiatives and may help foster sustainability.
3) Screening training could have been improved with more opportunity to practice.	Projects should provide trainees the opportunity to practice screening with children (or adults if needed) during training to familiarize trainees with the process of school-based screening implementation.
4) Screening training importantly focused heavily on eye/ear health and referral but could have provided further information to teachers about the implications of hearing and vision disabilities on literacy instruction.	Projects should identify explicit opportunities to link screening activities to training on strategies for classroom-based instruction for students with identified disabilities.
5) While the LEA Symbols chart was appropriate for vision screening, the noise test for hearing screening had limitations.	Projects should research which tools are considered valid and reliable for the age group they are screening and only promote those tools within implementation.
6) The screening pilot provided useful feedback about limitations of a teacher-led approach, which may be relevant to other projects.	Pilots should compare the reliability of screening results when collected from different individuals within the school system, such as school directors or district-level officials. Teachers or other school officials should have adequate oversight to ensure fidelity to implementation.
7) Screening, identification, and instruction ideally work in a closed feedback loop.	Projects that implement screening activities should review the Screening and Identification feedback loop (Exhibit 12) to identify possible breakages in the feedback loop and mitigation strategies.

6. Evaluation Question 3: Instructional Training

This section provides a background, findings, and analysis related to the evaluation of instructional training. Exhibit 16 provides a visual overview of the instructional training section of the report.

Exhibit 16. Overview of Instructional Training Section



6.1 Background on Instructional Training

Evaluation question #3 (training) specifically seeks to evaluate, "What training models and resources worked best to equip teachers of learners with disabilities?"

6.1.1. Evidence Base: General Good Practices on Inclusive Instructional Training

In the case of ACR-Cambodia, instructional training to teachers aims to provide an overview of tools and practices that facilitate literacy in learners with and without disabilities. Although policies, screening, and assessment are all important aspects of inclusive education, instructional practice may have the greatest impact in classrooms across Cambodia. Each day, teachers make curricular and pedagogical choices that have the opportunity to enhance literacy development for students. For this reason, USAID and other education experts have endorsed a series of evidence-based practices that focus on phonological awareness, phonics, reading fluency, vocabulary, and comprehension (National Reading Panel, 2000).

IDP evaluated ACR's trainings and training materials, which convey its instructional approach, based on two educational concepts. The first concept was Rose and Meyers' (2002) universal design for learning (UDL). This concept broadly focuses on the opportunity for end users to experience accessible material. In teacher training, accessibility is generally realized through accessible environments, accessible communication, and the intuitiveness of new learning. USAID has promoted UDL for students (Hayes, et al., 2018) and, over the past few years, has advocated for embedding UDL in materials development and training activities. In this evaluation, IDP investigated how UDL might improve teacher instructional training.

Accessibility
An important aspect of ensuring training can be utilized by participants is accessibility. Access can be provided to participants with simple strategies such as holding training in a central, easy-to-reach location, ensuring training is conducted in the language of trainees, and providing useful TLMs as part of the training. Accessibility (Rose & Meyer, 2002) and relevance of content (Bashiruddin, 2018) can also enhance stakeholder engagement. For persons with disabilities, accessibility may include ensuring that the training site is physically accessible and that accommodations are provided for participants with learning or sensory disabilities. Accessibility and implementing a UDL approach in training are authentic ways of reinforcing the inclusive principles that were recommended in the teacher and school director training.

The second conceptual framework for training is the infusion of inclusive education concepts throughout training curricula. Waitoller and Artiles (2013) found that across countries, inclusive education teacher development programs were significantly limited because they focused on disability inclusion as a separate curricular item rather than focusing on intersectional exclusion, school barriers, and the importance of inclusive education strategies across all teacher development activities. Building on this research, IDP examined the extent to which disability-inclusive strategies were found throughout literacy teacher training. When training programs address inclusive education as distinct from everyday literacy, artificial boundaries are drawn between students with and without disabilities. To blur artificial boundaries in training, Waitoller and Artiles recommend professional development (i.e., training) in which teachers seek to dismantle "multiple barriers to learning and participation for all students" (2013, p. 347). This approach requires not only teaching the concepts of inclusion through direct instruction but also embodying the ethos of inclusive practice through designing inclusive trainings which both demonstrate and provide instruction on inclusion; this includes designing an accessible training, providing opportunities for learning from a variety of stakeholders with lived experiences with disability, and providing hands-on, interactive experiences and coaching for trainees to apply their knowledge.

Disability Representation in Training

In delivering inclusive education training, evidence also supports the importance of consulting and engaging the experiences of persons with disabilities. For example, DPOs can serve as beneficial allies in the training process, representing firsthand experience with disability and advocating to ensure inclusive education content is present in all teacher instructional training.

Rieser (2012) outlined the benefits of DPO engagement by stating that DPOs:

> Can help change attitudes by their presence and pressure. They are a very important element of change, by advocating rights-based approaches, compared to charity and medical approaches. Educating teachers to confront their own and their communities' traditional idea of disability as a stigma is a necessary first step, as is getting them to understand that if they are a good teacher, they can be a good teacher for all children. (Rieser, 2012, p. 294)

Rieser (2013) later pointed to examples from grey literature in Burkina Faso, Malawi, Mali, Mozambique, Niger, Senegal, Sierra Leone, and Togo in which DPOs were involved in teacher development; these could be used as examples for other training initiatives such as those in Cambodia.

As an alternative to DPO representation, inclusive education trainings sometimes attempt to raise teacher awareness through the use of disability simulations. Such simulations are an experiential way for teachers to understand what it is like to try to learn without sight or hearing. Disability advocacy organizations have noted that such activities may enhance empathy in participants. However, they often do not build capacity in how to create accessible environments and fall short of exposing participants to the actual lived experiences of persons with disabilities (Silverman, 2015). In the example of simulations of blindness, Silverman elaborates that such simulations are also liable to provide misleading information to training participants, conflating the experience of *becoming* blind for a few minutes with the experience of *being* blind over many years or a lifetime. Such simulations may also lead participants to perceive disabilities in purely negative or pitying terms, which may inadvertently promote bias that perpetuates discrimination. Questions remain in the field related to the unintended negative consequences of these activities.

Coaching

The importance of teacher professional development extends beyond in-service training alone, and coaching is one strategy for embedding this development within schools. According to Piper and Spratt (2017), teacher change occurred when a "triple cocktail" of support was used. Support included 1) structured lesson plans that are scaffolded to support lower-skilled teachers, 2) instructional materials that are carefully aligned with lesson plans, and 3) ongoing coaching that reflects the information learned in training. The literature on instructional coaching as an additional component of training has chronicled mixed results. USAID's *Landscape Report on Early Grade Literacy* (Kim et al., 2016), for example, found that coaching has demonstrated promising results in some settings but that many studies are descriptive in nature, so more research is needed. Desimone and Pak (2017) reviewed literature on instructional coaching and found the strategy is often ineffective, but the authors argued that coaching may be effective if its intentions align with empirically proven teacher development strategies of content focus, active learning, duration, collective participation, and coherence. Finally, Piper and Zuilkowski (2015) found that coaching is an effective strategy but loses effectiveness as coaches' caseloads increase (i.e., the greater the school load for coaches, the fewer visits each teacher receives).

Sustainability

Furthermore, sustainability is an important component in extending the learning propelled by teacher training programs beyond project lifetimes. Sustainability is also informed by Fullan's (2016) theory of change. Fullan notes that the only real way an educational initiative will be sustained is if it demonstrates changes in the lives of students. Such changes require constant feedback loops between administrators and teachers, teacher buy-in, and sustained engagement at both the policy and instructional level. Specific to inclusive education training, Sindelar et al.

(2006) found teachers were more likely to sustainably implement new learning when there was a combination of both technical support and workplace accountability for their actions. Similarly, teacher learning is likely to be sustained when there is follow-up from trainers. Ideally, this continues even after the project has ended.

6.2 Findings for Instructional Training

The findings for instructional training are organized by project activities implemented by ACR, which includes general education in-service training, segregated schools in-service training, and pre-service training as related to inclusive education. Since ACR focused primarily on general education in-service training, the evaluation of this training is divided into the following subsections: training content and material development, training of master trainers, training of teachers, training follow-up and coaching, and sustainability.

6.2.1 General Education In-Service Training

Participants who received ACR-Cambodia's initial in-service teacher training included teachers in preschool and grades 1 and 2 and school directors from Kampong Thom. Efforts have since expanded to multiple provinces. In addition to engaging teachers, school directors, and master trainers, ACR-Cambodia invited representatives from relevant government agencies and offices to participate in or observe trainings.

Four main features comprise ACR's general approach to training. First, the training content that ACR-Cambodia developed was intentionally aligned with Cambodia's national curriculum. In this way, the project acted as a support structure to existing EGR standards in Cambodia. Second, the project acknowledged and integrated evidence-based approaches to literacy into its training content, including practices that focus on the five components of reading (National Reading Panel, 2000). A third feature of ACR-Cambodia's training approach was that all teacher and school director development activities were conducted in Khmer language and led by Cambodian trainers. This was accomplished through the development of a cadre of master trainers comprised of both NGO trainers and assigned (national and provincial) government trainers. Inclusion of the latter was meant to facilitate integration with government policies and promote sustainability. Master trainers were trained by ACR-Cambodia using a training-of-trainers model. ACR-Cambodia also engaged national and international NGO partners in the development of teacher training materials and with follow-up coaching visits with trainees. Finally, ACR-Cambodia piloted and evaluated all materials before utilizing them in training sessions.

Inclusive education content was embedded within ACR-Cambodia's broader training in the form of a 90-minute session as part of the first of three teacher training workshops in grades 1 and 2. No such session is offered in the preschool training package. In the grade 1 training content, which formed the focus of this evaluation, the first activity is a disability simulation, where trainees are variously instructed to be blindfolded, plug their ears with tissues, or place one arm behind their back to act out the experience of students who are deaf, blind, or have a physical disability. Following this simulation, a debriefing activity is designed to engage participants to describe their experience as learners with disabilities in order to identify strategies teachers can use to be more

supportive to these learners in their classroom. This session concludes with a short activity where inclusive education is defined and facilitators provide guidance and strategies to support inclusion, such as using multiple teaching methods, having a good attitude, or providing clear instructions. Finally, teachers are provided with a Checklist of Inclusive Education for Teachers and Principals, which outlines core characteristics that should be observed in inclusive classrooms. The session is underpinned by messaging that inclusion is a benefit for all learners and helps students to better participate and learn.

Training Content and Material Development

Highlights

Strength

- Teacher trainings were user-friendly, designed with practical application in mind, and leveraged both a strong literacy evidence base and contextual grounding through stakeholder consultation.

Missed Opportunity

- There is very limited explicit attention afforded to inclusive education in the training package, and the core inclusion session is grounded in a disability simulation, which is inconsistent with international best practice.

Training content and materials were developed with an awareness of the broader challenges around teacher preparation in Cambodia and to match trainee's capacities. According to one planner of the trainings, the approach is "super, super simple" and focuses 80% on practice and only 20% on theory. The rationale for this simplistic approach is that Cambodia only recently implemented the requirement for individuals to have 12 years of schooling to qualify for teacher training college and that bachelor-level programming is still in development. According to interviews, teachers receive two years of training before they are placed in schools, and in-service training for teachers is most often provided by NGOs. ACR-Cambodia staff explained that because teachers face so many barriers (low pay, over-crowded classrooms, lack of formal support, etc.), ACR-Cambodia intentionally set up trainings to reflect "what is the simplest practice for the teachers to implement that they can focus on right now." This may have also been the rationale behind the brevity of the inclusive education training within the larger teacher training activities.

Throughout the training development and implementation process, ACR-Cambodia demonstrated a commitment to involving a variety of stakeholders, with the noteworthy exception of DPOs. In an especially relevant outreach activity, ACR consulted with educators before finalizing the training and training materials for implementation to make the materials teacher-friendly. Such consultation is especially important considering a recent JICA study in Cambodia that found major gaps in training when teachers perceived training materials to be irrelevant to their work (Kuroda, Kartika, & Kitamura, 2017). ACR collected teacher feedback through school visits and guided reflection with teachers as part of the training. These combined efforts demonstrated ACR's willingness to adjust the content of the materials to fit the local realities and needs of teachers while maintaining fidelity to evidence-based instructional practices and alignment with ministerial

literacy aims. ACR-Cambodia worked to ensure all training content and delivery aligned with MoEYS's emerging continuous professional development policy, framework, and standards.

In general, the literacy component of the training content and materials were an area of strength for ACR-Cambodia. ACR linked its teacher instructional training with TLMs that were developed for the projects. Teachers were trained in evidence-based practices recommended by USAID for EGR, namely the five components of reading and a gradual release of responsibility methodology (National Reading Panel, 2000). Additionally, training materials also aligned with national literacy goals. ACR's teacher training provided a level of standardization in the approach to literacy that was embraced by MoEYS. Reports indicate that ACR's training and training materials (in conjunction with the TLMs) are now being used to align the literacy curricula utilized by various NGO-funded schools with national literacy aims and strategies.

There were, however, gaps related to inclusive education content in this training model, which only received 90 minutes of structured time in grades 1 and 2 and no time in preschool. A first concern was the use of disability simulations to raise teachers' awareness about disabilities, which inadvertently has the potential to perpetuate bias and discrimination.[22] Using the majority of a short 90-minute session on this simulation was time used at the expense of working with teachers on other inclusive awareness-raising and instructional strategies. A second concern was the lack of integration between inclusive education checklists describing what an inclusive school environment should look like and the core elements of literacy training. Participants were provided an inclusive education checklist, but the checklist appeared as an add-on document rather than its contents informing literacy training. ACR-Cambodia did not reference the checklist throughout sessions in the workshops or by extending this discussion of inclusion beyond the first of three annual workshops. Finally, while ACR provided supportive coaching for teachers after the workshops, reports do not mention the degree to which the inclusive education checklist was reviewed in coaching visits. In each of these three cases, elements of inclusive education were in training, but linkages between these activities and everyday inclusive practice appeared to be missing.

A final observation related to the inclusion session was an inconsistent perception of the utility of this session among stakeholders, an observation that is consistent with the project's overall absence of a definition of inclusive education. During KIIs, different project staff offered slightly different interpretations of this session's key goal. One respondent described this session as focusing on how inclusion is manifested in classroom teaching approaches, including behavior and classroom management, along with the way that teachers can use inclusive behaviors to interact with students. A different group of respondents described the training as simulating students' disabilities and teachers' attitudes and responses to students, both positive and negative. A government respondent stated that the training provoked participants to consider "how do [students with disabilities] feel when a teacher uses a word that hurts their feeling[s]?" Ultimately, some variation in understanding can and should occur, but there is also a risk that this variation would lead to a misinterpretation of the principles of inclusive education.

[22] The evidence base on the limitations of simulation activities is described further in Section 6.1.1 above.

Training of Master Trainers for General Education Approach to Inclusive Education

Highlights

Strength

- Respondents reported strong progressive skill development among the cadre of master and core teacher trainers established through the project.

Missed Opportunity

- Training of master trainers had limited participation by the inclusive education team, and content explicitly focused on inclusion may be too brief to adequately prepare teachers to educate learners with disabilities in their classrooms.

To implement teacher and school director training, ACR used a training-of-trainers (ToT) approach without cascading, a widely used method in the education professional development field. This approach responds to known concerns in Cambodia about the distillation of messaging and content through cascade structures (Kalyanpur, 2014; Song, 2015). The project recruited a team of master trainers, comprised of representatives from central- and provincial- level government (PTTCs and POE) and NGO partners, and trained them in the early grade learning package, including inclusive education, the competencies expected of teachers, and facilitation skills. The inclusive education training was provided by ACR's inclusive education director. Involving government and NGO staff as training participants and master trainers in the training speaks to ACR-Cambodia's commitment to sustaining training content and activities beyond the end of the award.

Interviewees estimated there were approximately 75 national trainers from PTTCs who worked directly with teachers. The relatively high number of trainers served two purposes. First, because the core ACR-Cambodia staff was relatively small, a high number of national trainers allowed for wider reach in terms of teacher participants. In addition, according to respondents, MoEYS was keen to develop the capacity of their own training corps. The national trainers were varied in terms of their experience and capabilities. As a result, ACR-Cambodia staff described the need to strategically adapt the training of trainers to meet the developmental needs of the newly recruited national trainers. The core trainer team (made up of experienced ACR-Cambodia staff and NGO partner trainers) came first, and they trained and continue to train the national trainers on all aspects, including inclusive education. This core team typically debriefed after training sessions to share experiences and problem-solve any challenges. On occasion, ACR-Cambodia's inclusive education team members (who were neither core members nor national trainers) would join the core team at the national trainer events and co-facilitate the inclusive education session.

At the same time, ACR-Cambodia staff noticed changes in the master training corps that occurred over several years. The changes were at times subtle but demonstrated how sustained interactions between the project and its national master training corps led to changes in perspectives and understanding of inclusive literacy. One staff member said they saw the greatest shift in master trainer "thinking around what is best for small children…the cognitive science around how children learn to read, the best practices for engaging all children, definitely, there has been a significant improvement." Staff further discussed the changes they saw in classroom practice as a result of master trainer efforts: "When you see the teachers practice, you see them,

really, you know, incorporating, the [inclusive education literacy] tips that we have. The walking around, even the fingers and eyes, having text in front of the student, and having them follow along with their finger and eyes is again, just so different than what is normally done. And that in and of itself, really supports children at all levels." These observations of improved practice are consistent with a UDL approach, which centers the importance of learner engagement and representing content through multiple means. ACR-Cambodia staff acknowledged there is still more work needed in relation to inclusivity in classrooms, but visible changes could be observed in classrooms because of the content a dedicated master trainer staff delivered through in-service training.

Implementation of Training Model for General Education

Highlights

Strength

- ACR-Cambodia demonstrated strong project management by recruiting and retaining the targeted teacher trainees throughout the first two years of training, and engagement of government stakeholders lent credibility to the training.

Missed Opportunity

- Explicit instruction on inclusive education was not part of preschool trainings nor was it included in trainings for terms 2 and 3 for grades 1 and 2, and was a missed opportunity to better prepare teachers to educate learners with disabilities in their classrooms.

As the project has scaled up year-by-year, ACR-Cambodia has added a new grade-level training package each year, and now provides three trainings annually to preschool, grade 1, and grade 2 teachers. As mentioned above, of these three trainings, grade 1 and 2 teachers and grade 1 school directors received a 90-minute session on inclusive education during the first training. Preschool teachers and grade 2 school directors were not provided with information on inclusive education.

Teacher Training Package

Preschool teachers: Three trainings (5 days total) – No IE training
Grade 1 teachers: 4-3-2 training day model (9 days total) – 90 minutes on IE
Grade 2 teachers: 4-3-2 training day model (9 days total) – 90 minutes on IE
School directors: One training (2 days) – 90 minutes on IE (grade 1 only)

For this evaluation, only grade 1 teacher training delivery in Kampong Thom was reviewed, and therefore, the following analysis and statistics pertain to this population only. This was due to the availability of materials at the time of this report, which was limited to grade 1 only.

For grade 1, targeting teachers and school directors for training on evidence-based EGR and inclusive education is an asset in promoting school-based learning communities. ACR-Cambodia demonstrated great effort to successfully recruit and train many grade 1 teachers and school directors in the Kampong Thom province and to consistently sustain teacher engagement across

multiple training events. In the original intervention model for the 2018–2019 school year, ACR planned to train approximately 562 grade 1 teachers and 480 school directors from eight districts in Kampong Thom. Teachers were to receive nine days of training divided into three workshops of four, three, and two days. School directors were to receive three days of training split into two workshops. Reports confirm the project met both its training participant targets and number goals. Specifically, ACR trained a total of 676 grade 1 teachers (68% female) and 494 school directors (20% female). The 68% of teacher trainees who are female exceeds the provincial average of 56% for primary teachers in Kampong Thom. MoEYS does not disaggregate teacher demographics by grade level, so it is unknown whether gendered participation aligns with grade 1 teacher demographics (MoEYS, 2019). Furthermore, the 20% of school directors who are female mirrored provincial demographics from the MoEYS statistic of 18% for non-teaching staff; however, this category encompasses school directors and other non-teaching professionals (MoEYS, 2019). In both cases, no MoEYS data was available on specific variables (grade 1 teachers by gender and primary school principals by gender) to make accurate assertions on gender representation, but trends in workshops generally appeared to align with trends in workforce demographics in Kampong Thom Province.

ACR-Cambodia demonstrated the ability to sustain teacher engagement in multiple training events over two years (October 2018–October 2020). In the first year, the vast majority of teacher trainees attended both initial and follow-up trainings although project reports noted regular teacher turnover, with approximately 115 of the 676 teachers (17%) unable to attend all three workshops within the first year. Further, the presence of government representatives in the training events added credibility to the training and may have positively impacted sustained teacher engagement in these professional development efforts over time. For example, His Excellency Dr. Nath Bunroeun chaired the opening ceremony at the first teacher training workshop, which was held twice (teachers were split into two groups), and 22 DOE and POE staff participated in these events. Government (central and provincial) and NGO partners were also involved as master trainers in this training effort, ensuring the experience and skill development among trainers expanded beyond the ACR project staff team.

Training Follow-up by Literacy Coaches

Highlights

Strength

- ACR's structured and supportive coaching approach is viewed as advantageous by project and government interviewees as compared to governmental inspection approaches.

Missed Opportunity

- Without a linkage between inclusion indicators used in coaching and the MEL plan, it will be difficult to measure the project's impact on inclusive teaching methodologies in practice.

An important feature of ACR-Cambodia's training model is the provision of follow-up coaching support provided by literacy coaches. The purpose is to support teacher implementation of new

skills immediately following trainings but also to promote sustained practice after the award period. Coaching was delivered by literacy coaches who were recruited, extensively trained, and supervised by one of ACR-Cambodia's NGO partners. These literacy coaches were part of a highly structured coaching support system guided by observational tools and teacher support delivered at the school-level. All teachers received some form of coaching, but interventions were staggered to examine effectiveness of specific coaching support models. In addition to literacy coaching support, teachers in the two screening pilot districts (Stueng Saen and Kampong Svay) also received support from ACR-Cambodia's inclusive education field team that typically coordinated teacher observations and feedback sessions with the respective literacy coaches.

Interview respondents mentioned that coaches used the structured observation form when they visited classes and that this form also communicated to teachers "where they are for their performance or teaching in the class with regard to … inclusive education." The tablet-based observation tool includes indicators tied to the inclusion tips contained within the teachers' guides; the inclusion tips support learners with low vision or who are hard of hearing. Staff explained that the inclusion indicators, as well as all other indicators within the tool, were presented as specific observable behaviors to minimize ambiguity for coach observers who have limited expertise in the instructional and inclusive practices. However, as discussed in this report's section on MEL, the project does not analyze data specific to inclusive indicators that are collected in the observation forms, which may represent a missed opportunity to understand the extent to which teachers are implementing inclusive practices. ACR-Cambodia staff revealed there was a sense of improved practice and a greater recognition of struggling students and were examples of preferential seating for children who wore glasses (it was unknown whether these children needed preferential seating, but it was occurring, which was considered a positive change).

ACR-Cambodia's coaching approach provided a forum for the continued focus on the content presented, an opportunity for teachers to practice with feedback, and an extension of the learning that could occur from training. Although a full evaluation of the coaching component still needs to be conducted, preliminary anecdotal evidence of positive outcomes may indicate effectiveness if these outcomes align with best practices in teacher development in general (Desimone & Pak, 2017). The ACR-Cambodia plan appears to follow Piper and Spratt's (2017) recipe of combining coaching with materials and structured lessons, demonstrating that learning from previous experiences can inform future decision-making. According to interview respondents, current ACR-Cambodia practice stands in contrast to existing governmental "inspection" processes, which are deemed to be more punitive and less supportive to teachers than coaching.

To promote consistent conversations between coaches and teachers, literacy coaches receive the same training as the teachers (plus one additional training specific to coaching). According to respondents, literacy coaches and teachers are trained together so both parties can get to know each other and start a relationship that allows coaching and mentoring to occur in productive ways. The ACR-Cambodia literacy coaches tend to be young (they may be recent teacher training college graduates, may have briefly worked as teachers, and/or may have worked in education for other NGOs). The fact they are young was perceived to be advantageous in that they can be easily trained, but also disadvantageous in that they lack experience (which may impact their

ability to effectively use the observation tool) and lack seniority (because teachers in Cambodia are accustomed to being visited or monitored by people in authority, such as district-level pedagogical advisors or inspectors). ACR-Cambodia staff noted that if coaches perform well in their first year of coaching, they may become co-facilitators in the teacher trainings, working alongside the core and national trainers.

However, ACR-Cambodia may have some missed opportunities. For example, interview respondents noted that classroom management was an intentionally small part of training and follow-up, as the topic was considered outside of core literacy objectives, but Popova, Evans, and Arincibia (2016) reported that classroom management trainings facilitate positive change in teachers. Other evidence supported linking training and opportunities for teacher promotion or advancement, which are not known to exist within ACR-Cambodia or other teacher training programs more broadly in Cambodia. For these reasons, optimism by interview respondents about training and coaching models is warranted, but further information is needed to determine the impact on teachers.

6.2.2 Training for Five Special Schools

Teachers from Siem Reap's special schools attended the grade 1 teacher training in October 2018 and discussed material adaptation suggestions with ACR-Cambodia's inclusive education team. These teachers followed up with ACR-Cambodia to report on their use of the materials in practice and attended subsequent teacher training workshops that discussed the use of decodable texts in lesson delivery.

After the pilot of adapted materials such as Braille books or CSL videos of storybooks in Siem Reap, ACR-Cambodia began rolling out the adapted and specialized materials and teacher training to the other special schools in 2019–2020. Training was delivered to all special school grade 1 teachers of children with visual disabilities, school directors, and technical grade leaders in October and December 2019. In addition, three teachers of preschool students who are deaf in the special schools joined the training in December 2019 along with the Bridge volunteers. Training included information about the five components of reading, how reading materials are adapted for use in braille literacy lessons, and the use of video-based storybooks to teach CSL vocabulary and comprehension skills.

6.2.3 Pre-Service Training

Highlights

Strength

- The expansion of the reading package to pre-service training offers a strong opportunity to support sustainability, including the embedding of the reading package's existing inclusion tips in the pre-service package.

Missed Opportunity

- The expansion of the reading package to pre-service training offered an ideal chance to strengthen ACR's influence in the field of inclusive literacy education, yet it does not appear that the project made any significant attempt to think beyond the in-service content to further embed principles of inclusive literacy instruction into the pre-service content.

Although pre-service teacher training was not a core function of the ACR-Cambodia project, it was highlighted as the project's "best chance" to impact long-term contributions to training. The process of adapting in-service materials for pre-service usage was intentional and is already underway. Specifically, MoEYS Cambodia is currently developing a four-year Bachelor of Arts teacher preparation program aimed at developing teachers who can teach at the primary school level, and the ACR-Cambodia literacy package will fit into that overall program with two credit hours for Khmer literacy each semester over three years. Interview respondents noted MoEYS has already adopted these additions to pre-service training and taken ownership of curricular integration at teacher training institutions. Respondents expect that once cohorts of teachers have been trained in these materials they will see positive impacts in the classrooms. This approach aligns with previous research by Johnstone and Chapman (2009) who found that sustaining in-service training is costly and, even in the most ambitious programming, cannot reach all in-service teachers. The authors instead suggested integrating inclusive education pedagogies into pre-service teacher training to eventually educate the nation's emerging teacher workforce.

According to the interview respondents directly responsible for the ongoing pre-service content development, there are both great opportunities and multiple challenges. One asset is that staff preparing the materials have experience in inclusive education and adapting materials for children with disabilities, and the leader of this component is extremely well-versed on the implicit inclusion principles from the ACR-Cambodia package. However, the focus on inclusion within the materials currently under development is quite limited and not embedded consistently across the design. One three-hour session that focuses on inclusion of students with various disabilities specifically as it pertains to literacy instruction is included in the syllabus, and this draws from existing content already used in post-secondary teacher training prior to ACR's involvement.[23] Other inclusion principles from the ACR package will be reflected, such as inclusion tips and basic CSL signs. Unfortunately, it did not appear that the pre-service content development has considered ways in which to expand or embed principles of inclusion across the syllabus in a way that reaches beyond what already exists. In other words, there has been no concerted effort to add more inclusion

[23] IDP believes this is content that UNICEF has produced in collaboration with MoEYS but was unable to verify.

content so inclusive principles are better reflected across each lesson instead of as standalone content areas in specific lessons.

6.2.4 Follow-Up and Sustainability

Highlights

Strength

- The project has embedded numerous strategies to promote sustainability, including extensive government collaboration and skill-building supports, and made materials openly accessible electronically.

Missed Opportunity

- It is challenging to foresee how teacher training would be sustained at the in-service level without donor support, and it is not yet clear what financial supports may be allocated by the government for inclusive education activities.

As mentioned in the sections above, ACR-Cambodia utilized several approaches to ensure new learning is carried on beyond the life of the project. The first strategy to support sustainability was the training of trainers. As noted above, many of these trainers were local government officials who can reinforce teacher learning through follow-on activities after the project has completed. Furthermore, ACR-Cambodia avoided possible slippage in training knowledge by 1) implementing the teacher training workshops at critical points in the school year, 2) providing intensive on-site coaching support to trained teachers, eventually supplemented with training videos, and 3) following up with refresher training for teachers two years after the baseline training. ACR's coaching strategy aligns well with international evidence that coaching is an important complement to other forms of instructional training (Pflepsen, 2019) and further supports the implementation of evidence-based practices by teachers who may have been implementing new literacy strategies for the first time. Aligning ACR training and training materials with MoEYS literacy policies and agendas is another strength of the project. ACR materials have been incorporated into both in-service and pre-service teacher training, thus providing an opportunity for sustainability.

In addition, ACR developed and maintained a repository for TLMs so heads of schools, NGOs, and other organizations could access these materials. Project reports, however, did not mention if a similar repository for information from training manuals exists. Uploading training materials in the ACR repository would allow teachers to review training information. ACR also established a Facebook page[24] with a wealth of information on the project in general, including information shared in teacher instructional training. This Facebook page, which is administered by NGOs and MoEYS staff, provides updates on training workshops, but at present, there is no indication whether the Facebook page is interactive for continued coaching and implementation questions or whether it is only used as a dissemination site for its 6,000 users.

[24] https://m.facebook.com/allchildrenreadingcambodia

ACR intends for teachers who have been trained through ACR to serve as a future human resource and to continue to use their new skills and methods in future classroom practice. However, interviewees expressed concerns related to the degree of sustainability in general that results from in-service teacher training. One participant noted, "In the past, I remember a lot of NGOs and some [projects were supported by] our government [and] the Ministry of Education, but after their project ends, it ends." The reality of a sharp decrease in activity once funding has ended is not new in the field of development and threatens sustainability. This is especially true for well-funded in-service training schemes that may not be replicated by governments after international funding has stopped. In fact, a key sustainability theme that emerged from the interview data was the government's need to formalize a budget structure to support inclusive education activities, while acknowledging that the government budget is limited. Interviewees specified this budget should include funding for teacher training, the provision of monitoring materials, equipment used to help families with children with disabilities who cannot afford it, and classroom materials.

Interviewees recommend, in addition to training, that teachers should have the opportunity to participate in refresher training each year, supplemented with in-person follow-up and mentorship to ensure sustainability. Mentorship and coaching have been a key area of focus for ACR and interviewees voiced concerns that once the project is complete, the coaching support will cease. Without continuous training and professional development, the training skillset may be lost when teachers turn over. Interviewees suggested that a sudden drop of training activities could be ameliorated by transitioning teacher activities to pre-service institutions, where they would be sustained within higher-education budgets as described in the pre-service section above.

Interviewees also raised an additional issue regarding teacher training: ACR's use of per diem for training opportunities. Although this is not a concern directly linked to inclusive education, in brief, a lack of per diem was posited as a potential disincentive for teachers to attend trainings and a disincentive for national trainers to deliver any other project workshops that do not provide per diems.[25]

Acknowledging the above-mentioned challenges, ACR-Cambodia has pushed for sustainability and advocated for a continuous teacher professional development system to improve motivation, and the ministry is contemplating the development of a national mentoring program (in part based on ACR's mentorship experience, including coaching observation forms). Government key informants also stated that training should be followed up by "monitoring, encouragement, and direct support from partners or the government," suggesting that both the government and ACR-Cambodia agree about the usefulness of mentorship post-training.

Interviewees also discussed how to enable long-term, supportive models. Government officials strongly urge support partners to continue to ensure sustainability, as one-to-two years of trainings is not enough for success. One suggested approach to ensure sustainability was a

[25] Evaluators note this is not a concern that differs from any other donor-funded project supporting teacher training with per diems, as is the practice on a national scale.

"cluster" model wherein schools are grouped together by geography and within every group (or cluster) there is a core school that can provide professional development or model inclusive literacy for other schools. Government officials spoke in depth about the importance of training cluster-level cohorts that develop relevant expertise to support local community schools, perhaps systematizing the use of school inspectors through government budgets to support such initiatives, stating "In each cluster, we need to have expertise…when there is a new teacher coming, [they] can support … if we suggest only the school principal [trains] in their own school, they are not motivated to do it." In this way, cluster systems can become technical support centers that serve as communities of practice beyond the project cycle. This approach is common in development and is frequently also known as a "hub-and-spoke" approach. A similar strategy called a "model school" approach has also been used in other settings as a way of connecting well-resourced and well-trained schools with other nearby schools that may need further support in implementing new initiatives (Peters et al., 2008). The recommendations provided by interviewees reflect ways in which Cambodian entities can continue supporting teachers to provide inclusive literacy instruction. Further information is needed in relation to plans for the cluster model as a means of sustainability.

6.2.5 Synthesis for Future Training Efforts

Highlights

Strength

- The participatory and interactive nature of teacher training workshops is consistent with an international evidence base and helps to model practices teachers can utilize in their own instruction.

Missed Opportunity

- Although some UDL principles were implicitly included in the reading package, the likelihood of sustaining UDL principles in practice may be lower if teachers are not explicitly exposed to the concept in training.

Cambodian classrooms, like classrooms around the world, are filled with children who have diverse abilities and motivations. The same child, for example, might find one topic easy and struggle with another. Often a clear disability/ability dichotomy is not apparent to teachers. Because of this diversity, inclusive education approaches, such as UDL strategies, are generally effective in heterogeneous classrooms. According to one respondent, the inclusive education session that was introduced to trainers imbedded UDL approaches, with the intention that trained trainers would reflect this principle when working with teachers. It was unclear, however, how inclusive approaches like UDL were fully integrated into trainings based on interview responses and materials reviewed, and the likelihood of sustaining UDL principles in practice may be lower when teachers are only implicitly, as opposed to explicitly, taught the concept. The role of the inclusive education team was also inconsistent with what their job titles would suggest. For example, one staff member noted that "overall, the inclusive education team didn't do a ton of training," which is aligned with that team's recollection that they were only involved in the development of one 90-minute session and were not consistently involved with other sections or with regular training delivery.

Because of the comparatively small presence of inclusive education strategies in training, some respondents recommended that inclusive education be incorporated as a topic into subsequent trainings and that subsequent workshops should dive deeper into inclusive education strategies. For example, IDP found inclusive education insertions in grade 1 trainings but absent in an initial review of preschool trainings. As one respondent concluded, the minimal exposure to inclusive education strategies aligned with the overall approach of reducing complexity for teachers. The respondent noted, "I think helping teachers to focus on basic behaviors first, before building up to these more advanced behavior is something … like a scaffolding for the teachers." Overall, the treatment of inclusive education strategies in training content appeared to be intentionally simplified. According to one respondent, this amounted to little more than an "awareness thing" and did not delve deeply into strategies, attitudes, or other curricular adaptations by design.

As noted above, the overall approach to in-service teacher training was to keep the complexity and amount of information at an easy-to-digest rate and to focus more on practice than theory. Interview respondents also qualified the participatory approach to training as a strong model of inclusive practice because "we realize that there's a lot of different learning styles, there's also a lot of different capabilities within the teachers themselves." One example of this approach referenced the games used in training workshops that require teachers to engage with the content they have learned in a hands-on manner, thereby deepening and solidifying their knowledge. The hope was that such modeling would be replicated in classrooms. This is consistent with research on best practices for teacher development (Desimone & Pak, 2017) and recommendations from McCollow, Shurr, and Jasper (2015) that reflect the importance of participatory and practical application opportunities for teacher trainees, including on issues of inclusive teaching and learning practices.

Yet Song's survey of Cambodian teachers (2015) who participated in child-friendly-schools training revealed that teachers only implemented superficial changes because of a lack of reflection and in-depth understanding of what they learned in training. Longer-term evaluation and research will help to explain if the simple, targeted approach created sustainable change in teachers, but at this juncture in the project, interview respondents felt the approach was appropriate and effective. McCollow et al. (2015) also recommended reflection on attitudes about disability and experience with persons with disabilities themselves as part of a "best practice" approach to in-service teacher training. As noted, such opportunities were not present in ACR-Cambodia training.

6.3 Instructional Training: Analysis and Conclusions

Overarching finding: ACR-Cambodia delivers a well-coordinated training approach that supports teachers to develop foundational skills teaching the new EGR package. Content development and training delivery appear to engage significant government collaboration and support technical skill development among trainers. It is less clear, however, the extent to which the limited focus on inclusive education may impact teachers' enactment of inclusive practices in the classroom. While some principles of inclusion are subtly embedded into the reading package

itself, the absence of a continued focus on inclusion throughout training workshops is inconsistent with the project's stated objective of supporting the education of learners with disabilities. There is also a risk that the current pre-service curriculum under development may perpetuate these same gaps.

The following findings were yielded from this analysis:

1. **ACR-Cambodia's training approach is highly collaborative and builds national capacity in EGR.** The project has continuously engaged MoEYS, NGO partners, and teachers in devising and implementing its training strategy and has recruited and trained large numbers of national teacher trainers. This resulted in training that reflected the policy demands of MoEYS, drew upon the strengths of NGOs, and reflected teacher needs.

2. **The use of disability simulation is a controversial practice that presents risk with little added benefit.** Persons with disabilities encourage trainings to present the lived experience of persons with disabilities through engaging persons with disabilities themselves in trainings. As an alternative to disability simulation, DPOs and parents of children with disabilities could participate in trainings to provide their valuable perspective and insights, thus reducing the risks presented by using simulation activities. In an era of COVID-19, pre-recorded dialogues between persons with and without disabilities may provide another outlet to convey consistent firsthand experiences of persons with disabilities in disparate training environments.

3. **The training session on inclusive education is brief, the content addressed is narrow, and inclusion is not integrated throughout.** This 90-minute inclusive education session, which only appears once in grade 1 and grade 2, provides a general introduction and awareness-raising on inclusion. However, the messaging around inclusion is absent in the preschool training, and grade 1 and 2 trainings do not provide many explicit linkages to concepts of inclusion beyond the short session. The inclusive education materials and activities appeared in a stand-alone fashion and were not explicitly embedded throughout training sessions. A more coherent and ongoing connection between inclusive education and literacy may have improved teacher understanding and implementation of both concepts.

4. **School-based coaching has helped to embed professional development into ongoing teacher support, but coaching related to inclusive education is unclear.** ACR-Cambodia's coaching approach provided a forum for teachers to extend their learning by practicing training content with feedback from coaches. These coaching strategies stand in contrast to existing "inspection" processes nationally, which respondents deemed more punitive and less supportive to teachers than coaching. However, the coaching process would benefit from more explicit linkage to inclusive teaching practices, and coaches should be encouraged to discuss issues of inclusion in each visit.

5. **Pre-service training reform is an asset to long-term sustainability and presents opportunities to "do more" with regard to inclusion.** The ongoing development of pre-service training curricula helps to embed the literacy package into the national system by supporting newly trained teachers to use the project's methodologies. The contribution is noteworthy because it can have ripple effects on Cambodia's education system for years to

come. While some content on inclusion has been incorporated, it did not appear that ACR-Cambodia considered how this pre-service content could expand the focus on inclusion as compared to the current in-service package.

6.4 Instructional Training: Initial Lessons Learned

The process of reviewing information for this interim report revealed some initial lessons learned that can be applied to both future programming in Cambodia as well a broader global audience working on inclusive education projects. Exhibit 17 provides initial lessons learned based upon the report findings related to Instructional Training. These lessons learned are gleaned from both project strengths and missed opportunities. In some cases, the “lesson learned” described is a strategy that ACR-Cambodia already successfully utilized; nonetheless, its use serves as important guidance for other future projects.

Exhibit 17. Findings and Lessons Learned from Instructional Training

Finding	Lesson Learned
1) ACR-Cambodia's training approach is highly collaborative and builds national capacity in EGR.	Training on inclusive education should strive to actively engage relevant national stakeholders, including those likely to sustain initiatives after project completion.
2) The use of disability simulation is a controversial practice that presents risk with little added benefit.	Training on inclusive education should avoid disability simulations and instead promote the participation of individuals with a lived experience of disability.
3) The training session on inclusive education is brief, the content addressed is narrow, and inclusion is not integrated throughout.	To support the likelihood of implementation in practice, training should avoid the portrayal of inclusion as a standalone subject by explicitly embedding opportunities to discuss and apply inclusive pedagogy throughout sessions. Furthermore, teachers may benefit from training on UDL especially in contexts where systems to identify students with disabilities are fractured. Finally, if teachers receive termly training, inclusion should be featured in each workshop as opposed to only the first.
4) School-based coaching has helped to embed professional development into ongoing teacher support, but coaching related to inclusive education is unclear.	Inclusion projects that offer school-based coaching must ensure coaches have the necessary training and resources to support and monitor the application of inclusive teaching in practice.
5) Pre-service training reform is an asset to long-term sustainability and presents opportunities to "do more" with regard to inclusion.	As is the case with in-service training, pre-service training curricula should avoid the portrayal of inclusion as a standalone subject by explicitly embedding opportunities to discuss and apply inclusive pedagogy throughout classes.

7. Evaluation Question 4: Instructional Approaches

This section introduces a global overview of the purpose and practices associated with instructional models and resources to improve reading outcomes of learners with disabilities. It is intended to provide a basis for understanding global trends related to instructional practices and a framework for communicating the rationale for the evaluation conclusions drawn by IDP. This general introduction section is followed by an overview of instructional practice specific to the ACR-Cambodia project, evaluation findings from ACR-Cambodia's approach, and preliminary analysis and conclusions.

7.1 Background on Instructional Approaches

This section provides a general overview of evidence-based practices for instructing learners with disabilities and helps to undergird the evaluation of ACR-Cambodia' instructional approaches. Exhibit 18 provides a visual overview of the instructional training section of the report.

Exhibit 18. Information Covered in Instructional Approaches Section

7.1.1 Evidence Base: General Good Practices in Instructional Approaches

Evaluation question 4 specifically seeks to evaluate, "What instructional models and resources worked best to improve reading outcomes of learners with disabilities?" In evaluating instructional practices, IDP examined TLMs for teachers that the ACR-Cambodia developed or used. The structure of the review was predicated on an evidence base related to the development of TLMs for inclusive education. This included a review of inclusive education approaches generally, based on the seven core principles for promoting literacy skills for students with disabilities, as identified in the *Universal Design for Learning to Help All Children Read* toolkit (Hayes et al., 2018). These principles, which can be applied to students with and without disabilities, include: 1) presume competence, 2) build on student strengths, 3) use evidence-based instructional techniques, 4) provide positive behavioral support, 5) promote culturally relevant learning, 6) ensure gender equity, and 7) ensure dignity. IDP added one more principle to this list, specifically, 8) ensure access and availability.

The above-mentioned inclusive education indicators and competencies are complemented by specific strategies for literacy that can create opportunities for "inclusive literacy." IDP developed its tools based on inspiration from the *Reading Program Evaluation Matrix*, originally developed by FHI360 (Collins & Miksic, 2018). This matrix was designed to identify specific elements of literacy instruction that must be present and effective for learners in the early grades to learn to read (National Reading Panel, 2000; Foorman et al, 2016; Kim et al., 2016). The IDP team elaborated on the matrix to ensure the literacy instructional approach was also examined through a UDL lens. UDL is premised on the evidence base which shows that students learn best when they have multiple means of engagement, representation, and action and expression. In other words, diversification of the content presented to learners, the ways they interact with it, and the ways they show their understanding can support learner achievement. A strong evidence base suggests incorporating UDL strategies to support struggling learners, which has been made accessible through the *Universal Design for Learning to Help All Children Read* toolkit (Hayes et al., 2018) and resources such as those provided by CAST (2018). A detailed elaboration of the linkage between literacy instructional methods and UDL is found in Annex E.

Another consideration impacting IDP's review was the evidence base suggesting that appropriate pacing of new instructional content is important to scope and sequence development, including sufficient instructional time to support learners in developing automaticity with new skills (Evans, Srikantaiah, Pallangyo, Sugrue, & Sitabkhan, 2019; Kim & Davidson, 2019; Kim et al., 2016). As a language with an opaque orthography and 74 letters (including consonants, dependent vowels, independent vowels, and diacritics), the Khmer alphabet has the most letters of any known alphabet (Huffman, 1970). USAID's *Landscape Report on Early Grade Literacy* describes the importance of explicit and systematic instructional strategies in the development of EGR programming, including the recommendation that programs "allot additional time for teaching visually complex orthographic symbols and do not introduce visually similar orthographic symbols together as they cause confusion" (Kim et al., 2016, p. 19).

Good Practices in Deaf Education

Learners who are deaf acquire foundational skills, including literacy skills, in a fundamentally different manner from learners who are hearing. This process necessarily begins with learning a sign language, such as CSL, before or simultaneously with written languages such as Khmer. Specifically, the research shows that reading becomes a process of translating printed words into sign language and does not rely on spoken phonology. Learning to read is challenging for children who are deaf or hard of hearing, who have not had opportunities to fully develop their foundational skills in a sign language first, and who do not have sign language role models in their communities. There are many signing children and adults who are deaf or hard of hearing who become expert readers by having early opportunities to acquire sign language, develop reading strategies, and learn in sign language-rich environments; however, even in economically well-resourced contexts such as the United States, the majority of signing children who are deaf or hard of hearing show significant delays in reading development (Hoffmeister & Coldwell-Harris, 2014; Lederberg et al., 2019; Petitto et al., 2016). This is often due to limited or no early opportunities to develop a strong sign language base.

The acquisition of both a sign language and the ability to read and write a written language text is referred to as bilingualism. Explicit instruction using sign language is beneficial, as transferring meaning from one language to another without additional support can be very difficult for learners who are deaf or hard of hearing and impede their ability to learn effectively (Lomas et al., 2017). Traditional learning techniques used for learners who are hearing can be challenging for students who are deaf or hard of hearing as these students require a mix of sign language and finger spelling to obtain literacy skills (Stone et. al, 2015) and become effective bilingual learners.

It is important to note that the World Federation of the Deaf (WFD) specifies that for education to be inclusive for learners who are deaf or hard of hearing, education must also take into consideration the cultural and linguistic identity of the deaf community (WFD, 2014). This signifies being able to communicate with their teacher, peers, and administrators directly. **Therefore, students who are deaf and hard of hearing need to be educated in a sign language-rich environment where they can communicate with educators and peers in a shared language, such as CSL.** The mere provision of an interpreter for learners who are deaf or hard of hearing in general education classrooms is insufficient for these students to develop foundational literacy skills.

7.2 Findings on Instructional Approaches in General Education Settings

To achieve its goals of improving the inclusive instructional approach in participating schools, ACR-Cambodia has undertaken a wide variety of activities. The project developed, piloted, and distributed TLMs in Khmer for both students and teachers in preschool through grade 2. This includes an extensive suite of scripted teachers' guides, supplementary student books, storybooks, letter-picture flashcards, pattern books for preschool shared reading and grade 1 independent reading, decodable student texts and leveled readers for grade 2, and sensory stories. Additional adapted materials have been produced for braille, sign language (including video versions of storybooks), a large-print, "easy-to-read" version of the supplementary student

books, and additional materials for learners during the COVID-19 outbreak. ACR-Cambodia produced a central, online, and accessible repository of all teacher TLMs, including teachers' guides in order to improve access and availability to all Cambodian teachers and schools. To this aim, many materials are now widely available on the project's Facebook page and the MoEYS website.[26]

As evidenced above, the work that ACR-Cambodia has undertaken related to its instructional model is vast. The scope of the review for this interim report was to cover two primary areas related to instruction: teachers' guides from preschool to grade 2 and the assessment of student progress through adapted EGRAs. However, additional information was generated through comprehensive stakeholder interviews. The emergent themes below have been categorized into the following subsections: teaching and learning materials, slowed pace of instruction, improved technical skills, and political buy-in. Following these emergent themes, additional sections have been incorporated to provide an overview of the project's activities outside of the general education classroom, namely the Bridge Program and segregated special schools.

7.2.1 Teaching and Learning Materials

All ACR-Cambodia materials have been produced over an extensive collaborative process with a variety of actors and stakeholders from national and subnational government, including a MoEYS EGR technical working group, international and national NGO partners and consultants, classroom teachers, and literacy coaches. During material development, ACR-Cambodia provided training and guidance to the illustrators of the student materials to ensure that gender and disability representation were considered in the illustration process. TLMs were also designed to complement versus replace the official MoEYS student textbooks, which the MoEYS elected not to revise during the implementation of ACR-Cambodia. Prior to ACR-Cambodia, a teacher's guide was not in use; the development and widespread use of teachers' guides for preschool to grade 2 represents a significant advancement toward systematizing and scaffolding teacher materials in early grade instruction. Below, IDP presents an evaluative assessment of teachers' guides for their alignment with inclusion principles generally and UDL-informed literacy instruction specifically.

Teachers' Guides: Principles of General Inclusion

Highlights

Strength

- Teachers' guides embed inclusion tips, appear contextually relevant, and utilize language that supports teachers to engage and motivate students.

Missed Opportunity

- No explicit messaging could be located that encourages teachers to use a strengths-based approach, to presume all students are capable of learning, or to ensure dignity for students with disabilities.

[26] https://www.facebook.com/123komar/
http://www.moeys.gov.kh/

In reviewing the teachers' guides for their extent of alignment with the inclusive education principles described above, several key strengths were identified. Specifically, teachers' guides are written in such a way that assumes struggling learners and students with disabilities have access to the formal education system (presumed competence) and provide some strategies for teachers and school leaders to enable access to the general education curriculum. For example, several guides (grade 1, semesters 1 and 2; grade 2, semester 1) utilize inclusion tips that instruct teachers how to accommodate students with hearing, vision, or learning difficulties consistent with UDL principles. The preschool and grade 1, semester 1 guides also instruct teachers to incorporate simple sign language into classroom instruction for all students. These sign language examples are often paired with games and incorporated into stories, and teachers are encouraged to engage students in various literacy activities (e.g., reading a story or teaching a phonics lesson) and incorporate sign language while teaching those literacy skills.

Related to presuming competence, all teachers' guides instruct teachers to encourage students to share their knowledge, experience, and perspectives related to particular topics, which is a UDL strategy consistent with building learner engagement and motivation. For example, one lesson in the grade 1, semester 1 guide includes a story about a boy who is practicing writing letters and an old man who is praising the boy for doing so. Teachers are instructed to ask students about who at home encourages them to learn and how they feel when they are being praised, emphasizing students' strengths. Furthermore, all guides demonstrate some level of suitability to the Cambodian educational and cultural context. The introduction to the guides describes how the instructional content aligns with the respective MoEYS curriculum, and grade 1 and grade 2 guides also include detail on the development of the materials and reference to national and international survey results in EGR instruction. This information provides important context, adds to the credibility of the materials, and demonstrates to teachers the way in which the materials align with government oversight.

In addition to these noteworthy strengths, gaps were observed in the teachers' guides as compared to core principles of inclusive education, described as follows:

- **Student strengths:** Teachers' guides had limited examples of how to apply new literacy concepts to build on student strengths. For example, guides do not instruct teachers to identify and document students' strengths and abilities in order to infuse this information into lessons and increase students' success.
- **Presume competence:** There is no explicit messaging that teachers must assume all children can and want to learn.
- **Ensuring dignity:** No mention was found of the importance of ensuring dignity for all students including struggling learners and students with disabilities.
- **Representation:** Although imagery is not a core focus of teachers' guides, where images such as persons using sign language are used, it is not always clear whether the individuals signing are men or women, but most images appear to depict men.
- **Positive behavior support:** Positive approaches to addressing challenging student behavior are absent such as positive behavior support, which emphasizes behavior as a form of communication.

- **Legal policy relevance:** There was no mention in the guides of the linkage between the content developed and relevant legislation, such as Cambodia's 2018 Inclusive Education Policy or the CRPD.[27]

Teachers' Guides: UDL-Informed Literacy Instruction

Highlights

Strength

- Teachers' guides include a structured pedagogical approach consistent with an international evidence base, and diverse, developmentally-appropriate games and activities implicitly aligned with many principles of UDL.

Missed Opportunity

- The use of inclusive pedagogical practices appears to decrease from preschool to grade 2, and there is an outstanding opportunity to introduce teachers to the UDL principle of "multiple means of action and expression."

IDP also reviewed teachers' guides for their alignment with principles of inclusive EGR instruction, such as UDL. Generally, ACR-Cambodia has produced a rich set of EGR resources for preschool, grade 1, and grade 2 teachers to use. Throughout the teachers' guides, lessons are well-structured, with consistent flow and supportive scaffolding both within individual lessons as well as across semesters and grades. There is clear evidence of adherence to several core principles of literacy learning, in particular the time spent building foundational skills and practicing them in class and the ample exposure to texts. Texts referenced in the teachers' guides include a diverse variety of decodable texts for emergent fluency practice as well as teacher-led stories that promote oral language development and oral comprehension. Furthermore, the guidance on supporting reading fluency, comprehension, and writing is consistently strong across grades. This includes literacy practice that is developmentally appropriate for learners, such as building a strong foundation in pre-literacy and motor coordination for preschool students or introducing more complex linguistic concepts in the final months of grade 2.

Instructional guidance promotes diverse strategies for conveying lesson content, and students are also encouraged to show their knowledge and understanding in varied ways. Songs, games, role play, the use of signs and gestures, individual and paired reading, and extra help to struggling learners are all inclusive strategies that are consistent with UDL principles (Hayes et al., 2018). Teachers are provided with varied guidance for how to check for understanding throughout lessons. The guides also include explicit inclusion tips for supporting learners with hearing or vision difficulties. Many of these inclusive strategies and types of support are innovative and balance the need to integrate creative approaches into the teachers' guide while scaffolding support for teachers' own professional development.[28]

[27] Such inclusions may not have been possible at the original time of publication due to the year in which the Inclusive Education Policy was finalized.

[28] Interestingly, despite the many UDL principles reflected in the teachers' guides reviewed for this study, project staff had no explicit background on or training in UDL.

While the teacher' guides are very strong overall with regard to literacy instruction and feature some inclusive practices, the evidence of inclusive pedagogical strategies to support children with disabilities or difficulty learning is inconsistent within and across grades and seems to decrease from preschool to grade 2. Despite the grade 2, semester 1 teachers' guide having many explicit inclusion tips,[29] they become somewhat redundant (and drop off in frequency by semester 2). More importantly, the guidance for inclusive teaching strategies and creative, varied learning activities is markedly lower after grade 1, semester 2, as compared to preschool and grade 1, semester 1. In interviews, project staff have since clarified that a compromise with the government was required for the guides in grade 2 as compared to grade 1, and in particular, grade 2, semester 2 covers more complex content at a faster pace than ACR-Cambodia originally desired. Furthermore, an absence of explicit strategies for supporting second language learners was noted, an omission that may not be essential in the current project-supported provinces, but which may come to bear in future expansion.

Additionally, IDP reviewers were unable to locate pervasive use of a UDL concept entitled "multiple means of action and expression" in grade 1 and 2 teachers' guides. This principle identifies that students will learn best when they are able to show what they have learned in various ways, including but not limited to speaking, drawing, writing, pointing, or acting concepts out. For example, students who feel discomfort or otherwise struggle to speak up in class would especially benefit from knowing that their teacher can engage with them and recognize their progress through other forms of expression. While lesson plans occasionally allow learners to express their understanding in different ways—such as through drawing or writing—there is no known mention of lessons that allow learners to *choose* at any given point in time how they express their understanding. Therefore, this element of student choice in action and expression is a gap in embedding UDL principles into instructional routines.

Finally, in reviewing teachers' guides, the following strengths and areas of opportunity were observed for specific grade-level materials.

[29] These tips were reportedly modified over time following feedback that the original tips were overly complex and not being applied by teachers in practice.

Exhibit 19. Strengths and Areas of Opportunity for Grade-Level Materials

Grade Level	Strengths	Areas of Opportunity
Preschool	• Developmentally appropriate approach to teaching and learning • Exposure to print literacy • Systematic and well-structured lesson plans • Representation of UDL strategies, including songs, games, movement, concrete objects, signs and gestures, role playing and acting out concepts, images, and connecting content to personal experience	• Provide strategies to support learners with difficulty seeing • Promote the use of pair work and basic assistive devices to support struggling learners • Encourage learners to choose how they express their understanding • Provide information to support teachers in using the results of informal assessment for differentiated instruction or to provide additional support to struggling learners
Grade 1	• Strong use of evidence-based literacy principles • Diverse strategies to support student learning • Systematic and well-structured lessons to support teacher automaticity • Good use of gradual release of responsibility methods to support student practice • UDL-specific strengths: regular practice in pairs, reminders to provide follow-up support to individual learners, use of diverse TLMs, and use of inclusion tips (albeit generic in nature) reminding teachers that many students learn in different ways	• Decrease information on inclusive practices in the second semester when compared to the first semester • Student choice in expression (a UDL principle) is limited across semesters
Grade 2	• Strong use of evidence-based literacy principles • Systematic and well-structured lessons • Gradual release of responsibility to ensure students can observe modeling, practice with the teacher, and have time for individual practice	• Inclusive principles consistent with UDL not well-reflected throughout guides as compared to grade 1 materials, particularly in semester 1. • Semester 1 guide has limited UDL strategies such as songs and movement, engagement of multiple learning styles through diverse activities, or alternative means of action and expression • Inclusion tips are only present in semester 1, but are simple and generally limited to ensuring that learners can see and hear the teacher

The above findings from the teachers' guides have not been shared yet with project staff. Nonetheless, in multiple conversations, staff interviewees described a desire to "do more" with inclusion, such as supporting teachers to develop more automaticity with the teachers' guides in order to develop the foundational skills that would allow for more varied support to learners with different strengths and abilities. Staff also expressed interest in using the feedback from MCSIE to support revising grade 2 TLMs prior to project completion.

Inclusion in Other Materials

Highlights

Strength

- Supplementary materials are consistent with numerous principles of inclusive education, including materials that promote engagement with learners with diverse strengths and needs.

Missed Opportunity

- The project could have expanded *accessibility for some* beyond the narrow target of students with hearing or vision disabilities towards a conceptualization of *inclusion for all.*[30]

Through interviews, project staff were also able to highlight their own opinions about promising inclusive strategies within other TLMs besides the teachers' guides. Among the strategies that were explicitly intended to support struggling learners and learners with disabilities are the following:

1. The publication of easy-to-read books in large print for learners with an identified need.
2. Imagery that promotes student engagement and story content that reflects principles of inclusion.
3. The use of letter/picture flashcards that have different colors for different consonant groups and dependent vowels.
4. Setting systematic standards about decodable texts, scaffolded review of prior content, and avoiding overloading teachers with too many new strategies at once.
5. The development of sensory stories and pattern books.

The positive outcomes highlighted by interviewees represent the importance of TLMs in development of inclusive classes. The underlying philosophy behind UDL is that not all students process, communicate, or engage in the same way. Therefore, if more opportunities are available to students, the likelihood of their engagement across all opportunities in class is enhanced. The "tips" and specific strategies provided also align with project staff's anecdotes regarding the low levels of training of teachers and their appreciation for scripted lessons and easy-to-implement strategies (such as increasing print size on materials). According to one ACR staff member, teachers in Cambodia have "very little training," so it appears as if the structure and specificity (e.g., use color-coded flash cards) of materials has been helping teachers to expand their repertoires in meaningful ways.

[30] See the Unintended Consequences section for more elaboration.

Despite these considerable UDL strategies, some interviewees spoke of the project's inclusion strategies in ways that suggested an approach less akin to UDL's focus on *accessibility* for all learners and more around specific *accommodations* for some learners with specific disabilities. The most common example provided was preferential seating: for "students who do not see well, we have arranged for them to sit at the front desk." Another government respondent stated, "We find that we focus on helping students with vision and hearing impairments." The somewhat narrowed focus on accommodations, particularly for hearing or vision disabilities, can be partially explained by ACR core staff, who were concerned about introducing too many theoretical concepts to teachers and preferred to focus on a few concrete skills and behaviors that teachers could employ in their classrooms. The ways in which this project sometimes focuses more on accommodation for hearing and vision disabilities versus UDL for all learners is discussed in this report's section on Unintended Consequences.

7.2.2 Slowed Pace of Instruction as an Inclusive Strategy

Highlights

Strength

- Many interviewees considered the negotiation and approval of a slowed pace of instruction with the government to be a hallmark of the project's success and consistent with inclusive teaching practices that support struggling learners and students with disabilities.

Missed Opportunity

- Project staff were forthcoming in identifying a desire to have further slowed the pace of instruction in grade 2, semester 2, a goal which was not successfully negotiated with external stakeholders.

Interviewees described the general landscape of education for children with disabilities in Cambodia and explained that much of this national context was considered in the ACR-Cambodia project design and delivery. For example, DPO respondents highlighted contributors to out-of-school rates among children with disabilities, including a lack of inclusive support in schools, untrained teachers, remote locations, loss of income for parents who have to support their child to attend school, intersectional disadvantage caused by poverty, and a lack of parental awareness about inclusive education. However, some interviewees also described the types of enabling conditions for successful inclusion of learners with disabilities in Cambodia, such as parents who attend school with their children in order to explain to the teacher the child's specific disability needs, the provision of scholarships to select learners with disabilities, the role of peer support in enabling inclusion to take place over time, or the provision of assistive devices and equipment.

One far-reaching strategy ACR-Cambodia used to support inclusion for all learners was embedding strategic opportunities to slow down the pace of instruction for all learners and to increase the amount of time available for review and practice. Project interviewees reflected a concern that covering such a large body of phonological and orthographic content, as outlined in the ministry's official textbook, in one year would be challenging for Cambodian learners to attain.

In response, ACR-Cambodia collaborated with MoEYS to allocate more instructional time to the practice of each new letter, add more review time on both a weekly and annual basis, slow the pace of instruction on certain challenging concepts such as diacritics, and move some complex Khmer phonics tasks from grade 1 to grade 2. The effect of this change was particularly pronounced in the grade 1 and grade 2, semester 1 materials, while ACR-Cambodia was relatively less successful in negotiating with government counterparts for a slowed pace of instruction in the grade 2, semester 2 materials.

The positive impact of this slower pace of instruction was reflected by multiple interview respondents, including four different project staff who all recognized this impact would benefit struggling learners including learners with disabilities. One respondent cited it as an inroad worth celebrating but still noted that the linguistic complexity of the Khmer language would work well with an even slower pace of instruction in the future, with a minimum of four years for literacy foundation. Another positive consequence of a slower pace was that the government was amenable to slow down the pace during COVID-19 hybrid learning as well. Specifically, one respondent termed it as a "bright spot" that the ministry did not require teachers to fit in a full semester's curriculum in only 13 weeks and agreed to allow more time for the review of prior content. A different respondent articulated the progress that this agreement from the ministry signified, given the historic reluctance by the ministry to engage in challenges to its standard guidance. This respondent stated that this was a positive and "shows that the ministry team is understanding the idea that literacy needs that strong foundation, and if kids don't have that, it's going to be challenging."

Although the anecdotal evidence presented by staff members appeared promising, these anecdotes should be taken with caution as more data is needed on student outcomes in relation to slowed pace. Specifically, it may be challenging to separate the impact of a slowed pace of instruction from other simultaneous improvements to the literacy program, including the development of scripted teachers' guides and the provision of supplementary learning materials.

7.2.3 Improved Technical Skills among Government Staff, Teachers, and Material Developers

Highlights

Strength

- ACR-Cambodia was strategic in showing the impact of its reading package to generate buy-in, and the project has successfully contributed to increased skill development among both MoEYS staff and within the publishing industry.

Missed Opportunity

- Data is not yet available to demonstrate the likely positive impact of the reading materials on attitudes towards learners with disabilities or reduced discrimination.

The improved technical capacity of government staff is best understood against the backdrop of the education system more broadly. In interviews, a variety of project staff, government collaborators, and DPOs explained that typical school environments include teachers with poor

motivation to provide quality teaching, which is tied to their low salaries and common need to work multiple jobs. Pedagogical approaches in typical Cambodian schools are described as frequently driven by choral reading and copy dictation methods, characterized by teachers standing at the front of the room and the strongest students seated at the front, frequent noise disruptions, and little opportunity for differentiated instruction for learners with differing abilities.

As a departure from these "traditional" methods, interviewees described the methodologies used by teachers in ACR-Cambodia as "fun," "interactive," and "engaging." This includes anecdotal evidence that teachers who follow scripted lesson plans elicit strong student participation and learning outcomes and that learners in participating schools "love the book and they want to learn." Others said the materials help to improve attitudes about learners with disabilities and reduce discrimination among peers in inclusive classrooms although the scale of these changes is not known. Ultimately, further data is needed to understand whether more engaged students, according to observations of staff members, leads to improved educational outcomes. However, it is clear teachers introduced new behaviors into classrooms because of materials development, indicating a project success.

In Cambodia, another widely discussed theme as it relates to government is the technical skill development that has taken place among MoEYS staff and other materials development collaborators. A key component of successful scale-up of education programs is ensuring an enabling environment for continued activities, which requires a thoughtful approach to capacity-building among local champions who can facilitate long-term ownership (Robinson, Winthrop & McGivney, 2016; Smith, 2005). In Cambodia, this has been facilitated through years of collaborative materials development, workshopping, consultation, and dialogue that both project and government respondents frequently described. According to project staff, the government staff's endorsement of new technical methods over time has been made possible by their observation of implementation by teachers and students in practice. This includes methods that are common across USAID literacy programs but novel in the case of Cambodia at a national level, such as the gradual release of responsibility methodology, the five components of literacy, or participatory teaching and learning strategies. Observing these methods over time in workshops and classrooms has been cited as a contributor to "building the buy-in of the technical team" at the ministry.

According to both ministry and staff interviews, buy-in occurred because changes could be observed in everyday practice. Interviewees hypothesized that changes occurred in teachers because of a combination of experienced success and the accountability of a coach/mentor visiting on a regular basis. Once changes in classrooms could be observed by ministry officials, endorsement followed. This endorsement was partially informed by evidence that government teachers could develop their own effective practice. According to interviewees, NGOs are often very effective but in small, focused ways. NGO effectiveness, however, rarely spills over into government schools. Thus, a stated strength of this project was its focus on teachers, government officials, policy integration, and ownership of new pedagogies and materials by MoEYS.

In addition to the technical skill development as it pertains to ministry counterparts, project staff noted the increased capacity of the materials development and publishing industries in Cambodia to support ongoing work beyond the life of the project. One achievement is that project staff facilitated a training activity with a cohort of story writers, illustrators, and publishers, where they explicitly discussed the importance of reflective inclusive principles in all aspects of materials development, including content of stories, portrayal of individuals in illustrations, and accessible publications. New materials have also been field tested among children in inclusive classes. These considerations for inclusion extended beyond just individuals with disabilities and paid explicit attention to issues of gender and ethnic minority groups as well. Examples of inclusion as reflected in the materials included stories in which the protagonists are people with disabilities achieving great successes, illustrations that depict individuals who use hearing aids or glasses, and boys and girls undertaking responsibilities that do not conform to typical gender roles. Such strategies are consistent with international guidance on inclusive TLM development (RTI International, 2017).

7.2.4 Political Buy-in and Endorsement

Highlights

Strength

- ACR-Cambodia has leveraged a highly collaborative approach with stakeholders to successfully realize the development of a student supplementary book, the use of scripted teachers' guides, and the slowed approach to teaching national curriculum, where no such efforts had previously succeeded at this scale in Cambodia.

Missed Opportunity

- None noted.

In addition to the technical skill development among MoEYS staff described above, political buy-in from MoEYS was highlighted by interviewees as a key enabler of the project's development. Historically, the government's official curriculum has undergone little modification over time, with a particular reluctance to modify any textbooks used for Khmer literacy instruction and an initial resistance to the use of teachers' guides. Respondents also highlighted the differing opinions between NGOs operating in the education space and the government, including disagreements around the ministry's belief that teachers should each write their own lesson plans and NGO attempts to challenge such approaches. The differences in opinion translate down to the classroom level, where teachers have been described as reluctant to try new teaching strategies promoted by NGOs due to ministry preferences for uniform methods and school inspectors who critique teachers for using different instructional strategies.

It is against this backdrop that the project's collaboration with ministry counterparts has been crucial to the successes that have been achieved to date. The extent to which the project's political savvy and perceptiveness to government practices has influenced the success of this project cannot be underestimated. It has made possible the development of a student supplementary book, the use of scripted teachers' guides, and the slower approach to teaching national

curriculum, where no such efforts had previously succeeded at this scale in Cambodia. It has also made possible the government's newfound insistence that any future NGO projects in the early grades make use of these existing resources instead of parallel or alternative curricula. Respondents provided some attribution for this tactful approach directly to USAID, stating that it was "built into the design" that multiple NGOs would collaborate alongside the government. Because developing new instructional approaches in Cambodia has the potential to be "tenuous," project staff highlighted the way in which the development of a "collective voice" has been so crucial to the progress achieved.

One of the main reasons for ministerial uptake of materials and processes was ACR's approach to partnership with NGOs and government partners. Rather than develop materials in isolation and hope they will be used after the project period, ACR and its partners assumed from the beginning that all materials would eventually belong to MoEYS. ACR staff, along with partner NGOs, would develop "core groups" for every new material, engaging ministry officials at the development level. During interviews, government collaborators were generally quick to praise ACR-Cambodia's consultative approach to rolling out the TLM development directly alongside relevant government counterparts. Any descriptions of materials development by government or project staff inevitably mentioned a diverse group of participants who were involved in the process, from national and subnational ministry staff, representatives of disability-specific departments including SED and NISE, classroom teachers, and disability and generalist NGOs, including Krousar Thmey and the Asia Foundation. This also included a detailed process of checking and receiving permission for all new content developed by the ministry, ensuring that the materials developed would be treated as official government materials as opposed to one-off NGO variations, which have been described as being received with skepticism in the past.

The process, however, was not always as seamless as it would appear above. For example, given the reluctance of MoEYS to modify official curricula, ACR worked with the government to frame its books as "supplemental materials" as a compromise. The adoption of teacher TLMs was similar, where a final title was agreed as a "Teachers' Activity Guide" but not a "Teachers' Guide." At times, consultation and compromise were utilized as an approach to gain approval and buy-in for materials. At other times, ACR presented data that outlined the need for new materials to the ministry. For example, ACR staff combined their presentations of new materials with data from Cambodia to drive critical discussion. Specifically, this has required a focus on data collected from within Cambodia, which is reportedly more welcomed by the government than data from abroad. Project staff reported that by presenting the government with evidence about student learning outcomes in the local context, and saying, "here's what it looks like in Cambodia," helped to facilitate a gradual change in perspectives and eventual adoption of materials as ministry-approved supplements and enhancements to the existing curriculum.

ACR's experiences align with what Hickey et al. (2015) call the "politics" of development. In this sense, Hickey et al. concluded that "participation" in the development of new initiatives is often little more than an add-on at the end of a project, a concern that Kalyanpur (2014) has variously echoed in the case of donor-funded inclusive education programming in Cambodia specifically. For example, in a participation model, ACR might have held a workshop with the government at

the end of the project to present and share the new materials more broadly. Instead, Hickey et al. (2015) argue that a greater degree of inclusion can occur when there are allowances for representation and negotiation, understanding that local governments are an integral and substantive part of a development project's design, one that takes place throughout implementation. Although such arrangements may at the time be contentious, they also allow opportunity for agreement to be reached on all parties' terms, thus predicting greater chances for buy-in and sustainability. In this case, ACR and MoEYS negotiated and reached compromises that were considered mutually beneficial for the ministry and for the project's teacher and student stakeholders.

7.3 The Bridge Program

Highlights

Strength

- The Bridge Program has enabled access to CSL education for children who may have otherwise remained out of school and has facilitated the development of materials and resources that support early grade language development for learners who are deaf.

Missed Opportunity

- To best ensure the engagement of the most vulnerable children, the project could have continued to search for out-of-school learners with other disabilities or support their enrollment in inclusive schools.

In addition to the instructional programming offered in general education schools and segregated schools, the Bridge Program focuses on the education of 13 formerly out-of-school students who are deaf, ages 4–8 years. The Bridge Program originally began as a pilot effort to locate learners with disabilities in Kampong Thom who could benefit from access to education. As part of the shift in programming focus from Siem Reap to Kampong Thom in February and March of 2018, RTI gathered additional information related to existing organizations working with children with disabilities in Kampong Thom and began to collect information from commune officials about children who are known to be deaf or blind. During the first half of FY19, the inclusive education team reviewed this information and identified a total of 13 learners who are deaf and one learner who is blind. Additional learners with other identified medical conditions or disabilities, such as heart conditions or cerebral palsy, were outside the target population of the program and removed from the sample. This conscious decision to focus on hearing and vision was described by one staff member as "heartbreaking to draw lines about who we can support and who we can't." Further analysis is required to understand the exact rationale for these exclusion criteria. Finally, the project decided to provide support to the parents of the learner who is blind separately through teaching materials; however, the family moved and the program lost contact with them. Thus, the final program focus was solely on learners who are deaf.

The Bridge Program was designed in consultation with local government officials in health and education and NGO partners in Kampong Thom. To address the specific needs of learners who are deaf who have never accessed school, the Bridge Program focused on helping learners

develop basic CSL communication skills and school-readiness skills. This was not part of ACR's initial program design but a response to a need identified in the field. With very few adults proficient in CSL, ACR developed a community-based volunteer network and capacity-building system supported by a deaf education specialist and a broader inclusive education team. Efforts began to recruit and train volunteers who would support younger learners (ages 4–7) who were not currently attending school with an aim to transition the learners to preschool or grade 1 formal education settings. Although the project attempted to locate volunteers who were deaf and proficient in CSL, none could be located in the province, and therefore, all volunteers and staff are hearing. In addition to teaching students, the Bridge Program supports families through monthly meetings and community support activities, efforts which intensified significantly following the COVID-19 outbreak.

Some Bridge classes take place at the local school, when possible, to promote integration and peer engagement (during class breaks); however, these lessons are not delivered in general education classrooms alongside peers who are hearing.[31] Other Bridge students are taught at the community-level due to their distance from schools. At the end of FY19 and the beginning of 2020, the inclusive education team began to work with one teacher from Kampong Thom to prepare the teacher for an integrated class (a segregated class located in a school, which would support only students who are deaf or hard of hearing) for some of the Bridge students. During this process, the team discovered the teacher had retained little knowledge of CSL, and he expressed he was not "motivated to teach" the integrated class. The inclusive education team could not identify a suitable alternative teacher with the CSL skillset and decided that one of the Bridge volunteers would be employed by POE as a contract teacher for the 2020-2021 school year. In January 2020, POE committed to employing two of the Bridge volunteers as integrated classroom teachers if ACR-Cambodia would train and support them. ACR-Cambodia began to select and train new prospective teachers and worked with families to develop curriculum for the integrated classrooms and transition plans for Bridge students.

All Bridge students are supported with learning sign language and catching up on national curriculum, with a goal of transitioning from the Bridge Program to integrated classrooms (for students who are deaf or hard of hearing) within their local schools. At this time, however, ACR-Cambodia key informants report that they do not feel Bridge students will have the support necessary to transition into integrated (or inclusive general education) classrooms without it disadvantaging the students academically. This includes multiple respondents who offered firsthand accounts of non-Bridge Cambodian learners who are deaf or hard of hearing attending school in either inclusive or integrated classroom settings without access to sign interpreters or teachers with any functional proficiency in CSL. This concern was echoed by anecdotal reports that parents of Bridge students feel more comfortable with sending their children to a school for deaf students than an integrated classroom. At this time, three transition options are being discussed for these students: 1) attending an integrated classroom for students who are deaf or

[31] The clarification that students who are deaf are not taught in inclusive classrooms is not intended to mean that MCSIE authors are suggesting that these learners should be taught in inclusive classrooms.

hard of hearing, 2) moving to one of the five special schools, or 3) continuing learning in the home community with volunteer support.

Bridge Program Project Staff

The inclusion team's support to the Bridge Program includes the provision of curriculum, sign language instruction for volunteers and families, additional capacity-building and mentorship of Bridge volunteers and contract teachers currently working in integration classes, referrals for children to receive medical services if needed, and the creation of student profiles for learners that will lead to individualized education plans (IEPs) and transition plans.

The following is a high-level overview of the project staff involved in the Bridge Program:

- **Team composition:** The inclusion team includes an assistant based in Phnom Penh and an inclusion team leader, two inclusion officers, and one deaf education specialist based in Kampong Thom.
- **Recruitment challenges:** There was a hiring delay for a deaf education specialist (filled in Q4 FY18), but key informants did not express that this had an impact on the program's action plan for recruiting volunteers and strengthening capacity. Recruitment difficulties and low technical expertise in country for deaf education specialists contributed to staffing delays.
- **Training of staff:** ACR-Cambodia developed a staff training for the inclusion team that included topics related to disability and development, deaf culture, sign language acquisition, child development, advocacy, family support and how to work with parents, and child protection. These topics were later shared with the Bridge Program's volunteer teachers.

Bridge Volunteers

The Bridge Program has 13 volunteers who were recruited from the villages where the learners who are deaf live. If no volunteers lived in the same village as the learner, volunteers were recruited from nearby villages to become sign language teachers. The inclusion team worked with local authorities, village chiefs, commune chiefs, and school principals to recruit volunteers. Some limitations noted were low community expectations for learners who are deaf or hard of hearing (suggesting that awareness of the capabilities of learners with disabilities is an important step in training volunteers) and capacity challenges around volunteers with limited sign language fluency.

The capacity-building program was robust and included teams working closely with volunteers and families of learners who are deaf. The impact of this training on families reportedly included changed perceptions among some parents who discovered for the first time that their children can learn. Additionally, the program provided volunteers with tablets that included sign language instruction videos and supported volunteers monthly through capacity-building efforts. The monthly meetings focus on sharing experiences and potential improvements and include persons who are deaf or hard of hearing for their input into the discussion. In January 2020, ACR-Cambodia recruited three volunteers who are deaf from other provinces to work as consultants with the Bridge teachers, other volunteers, and learners to help them learn CSL. MoEYS is also

supportive of transitioning volunteer teachers into formal government employees and intends to support one-to-two volunteers to transition into paid contract teachers.

Curriculum Development

The development of a unique collection of TLMs for Bridge students has been a major undertaking of the inclusive education team. In response, the team led the development of weekly activity guides for volunteer teachers who would use the curriculum to support learners to develop CSL skills related to different topics, such as their homes, bodies, and food as well as social-interaction and school-readiness skills. Learner profiles are also under development, which take a strengths-based approach, and provide a brief history of the student and their family; a description of the student's disability and challenges; the level of sign language proficiency; a summary of cognitive, social, and motor development; and current academic skills to give families and educators an understanding of each student's skills and challenges.

Further work has been done in developing hundreds of flashcards for different signs (linked to Krousar Thmey's existing materials), teachers' guides, and new CSL videos. The program also developed sign language story books used by Bridge students in collaboration with Krousar Thmey and the Deaf Development Programme (DDP). MCSIE was unable to evaluate these materials in detail for this report but will investigate them further in future reviews.

As described by staff involved in the Bridge program, one challenge in content development has been accounting for learners of various ages as high as 13 years old, all of whom are far behind academically due to a lack of formal educational opportunities and the lack the necessary academic skills to be transitioned into general education classrooms at the primary level. The inclusion team thus focused on developing a curriculum for the Bridge classes, including the sample unit plans and lesson plans referenced above. As part of this process, the inclusion team developed sign language outcomes based on the MoEYS national pre-primary curriculum, such as linking CSL signs about weather and animals to the MoEYS standard unit of "nature and the environment." Key informants expressed that because of students' varied levels of communication skills and academic progress, the adapted pre-primary curriculum for CSL may be too advanced for some and not advanced enough for others, requiring a high level of differentiation. As Bridge students progress in the program, the inclusion team plans to develop outcomes for grade 1 and subsequent grade levels.

It is important to highlight that government and project interviews confirm ACR-Cambodia collaborated closely with MoEYS throughout the development of the Bridge Program and for many of its materials. These materials were designed with an understanding of varying capacities and backgrounds of staff to ensure future use. Simplicity was also embedded in training materials through the use of clear visuals and simple language to ensure content could be translated as accurately as possible. The sign language videos developed for the Bridge Program were also posted on the National Early Grade Learning website owned by MoEYS but intended for public use.

Despite this positive collaboration with government, some inclusion staff raised concerns about the collaboration between the inclusion team focused on Bridge and the broader program design. Specifically, members of the inclusion team noted that if they had been involved in initial program design, the knowledge and expertise brought to the Bridge Program could have been more overtly included in the mainstream literacy curriculum and classrooms to improve impact and scale. For example, inclusion team staff suggested that some of the games and adaptations made to the CSL preschool curriculum could also benefit all preschool learners in mainstream schools.

Communication and Collaboration

In both interviews and project reports, project staff have found that the government, teachers, and schools have been supportive and welcoming of this work and have provided contract teachers to participate in the program activities. Multiple interviews highlighted that communication between all parties (families, teachers, and community members) was supportive and encouraging. In fact, MoEYS is reportedly considering supporting efforts to address accessible transportation to the schools, an aim consistent with the country's Inclusive Education Policy. ACR-Cambodia also created parent support groups to facilitate the sharing of resources and information through platforms such as WhatsApp, which have formed an added utility during the COVID-19 school closures.

However, there is less clarity around the communication and collaboration among partners involved in developing the CSL-adapted materials. Specifically, as collaborative activities unfolded between ACR-Cambodia and local leaders in deaf education such as Krousar Thmey, it became apparent to ACR-Cambodia that the development of new CSL materials would be a lengthier process than originally anticipated. According to both ACR-Cambodia and Krousar Thmey, this was in part due to many of Krousar Thmey's staff transferring to NISE but also due to some methodological differences of opinion around best practices for adapting or producing CSL materials. As a result, according to ACR-Cambodia, Krousar Thmey and NISE's involvement in the development of Bridge materials was reportedly limited.

7.4 Segregated School Support

Highlights

Strength

- ACR-Cambodia has facilitated the adaptation of various supplementary materials in braille or CSL to support early grade literacy resourcing for students with vision or hearing disabilities.

Missed Opportunity

- Differing perspectives around materials development for students who are deaf or hard of hearing was linked to limited engagement with Krousar Thmey and resulted in a possible missed opportunity to leverage the organization's expertise.

There are five national segregated special schools in Cambodia that specifically cater to students with vision or hearing disabilities. The provinces of Siem Reap, Battambang, and Kampong Cham each have one special school, and there are two schools in Phnom Penh. Students who are blind

or have low vision who attend these schools receive support to participate in inclusive community schools for half a day starting in grade 3 and study the same national curriculum set by MoEYS for all students. Similarly, students who are deaf or are hard of hearing begin attending inclusive schools for half a day starting in grade 5. This allows them to develop sign language fluency in the early grades and provides access to speech therapy and specialized tutoring during the half a day at the special school (Krousar Thmey, n.d.).

ACR-Cambodia has also made an effort to involve teachers from these schools in project activities leveraging teachers' experience and expertise in working with learners with vision or hearing disabilities. This includes engaging teachers from the Siem Reap school to develop adapted student materials for learners with disabilities, including large print materials, braille versions of supplementary materials including decodable texts, and video adaptations of storybooks, among others. Furthermore, ACR-Cambodia used the Siem Reap segregated school to develop and pilot adapted EGRAs for 173 students who are deaf or hard of hearing and blind or have low vision. IDP's primary understanding around the role of segregated schools in ACR-Cambodia has been informed by secondary source documents, with some interviews also shedding light on this component of the project, but further evaluation is needed.

Interviewees explained that other activities included an ongoing collaboration between the NISE CSL committee and ACR-Cambodia for materials development. Of the project's approach to engaging segregated schools, one government respondent explained, "The strength of the project's approach is that they have enough materials, such as for the people with visual impairment, they have braille documents, and the facilitators have the skills in braille, they are not RTI staff, but the staff of the [NISE/special schools]. They already have the skills and methods to train." Another interviewee relayed teachers' feedback that the materials and teachers' guides make teaching "more helpful and interactive."

Additional informant interviews during the 2019 inception visit shed light on the challenges around engagement between the segregated schools and ACR-Cambodia. This included different perspectives around the plan to adapt TLMs for learners who are deaf or hard of hearing, as described in the Bridge section previously. These interviews also clarified the collaboration among of a variety of stakeholders in the materials adaptation process, including SED, NISE, Krousar Thmey, and ACR-Cambodia, among others.

7.5 Student Assessment for Learners with Disabilities

As a part of the ACR-Cambodia instructional approach, MCSIE has evaluated the project's use of adapted EGRAs to support learners with disabilities. A description of the project's approach to the adapted EGRA is provided below and followed by an evaluation of these efforts to date.

7.5.1 Description of ACR-Cambodia's EGRA Approach

The ACR-Cambodia project is measuring overall student learning outcomes with the EGRA, administered three times to a representative sample of its beneficiary population and a control group. This large-scale EGRA tool is similar to EGRAs used in most USAID reading programs

and is not adapted for students with disabilities nor are the data disaggregated by disability status or type.[32] In addition to this, ACR-Cambodia undertook an effort to develop and field test adapted versions of the EGRA for use with students who are blind or have low vision and students who are deaf or hard of hearing. These small pilots were primarily intended to lay the groundwork for potential larger-scale adapted EGRAs in the future and to not serve as an outcome measure for the ACR-Cambodia project.

In line with the scope of MCSIE, IDP did not examine the large-scale EGRA used for measuring project outcomes, but rather, IDP examined the two EGRAs adapted for students who are blind or have low vision and students who are deaf or hard of hearing.[33] The following describes IDP's evaluation of ACR-Cambodia's adapted EGRAs.[34] IDP evaluated the administration of the EGRA through the use of a rubric (based on USAID EGRA administration guidance) and through a lens of inclusive assessment. The evidence base for this rubric is described further in Annex F.

Standard administration of any assessment such as the EGRA may create barriers to the way students are able to input or respond to assessment prompts. For this reason, accommodations and/or modifications of assessments may be necessary to include children with disabilities in the testing population. Accommodations are individualized changes to test administration that do not impact the content or difficulty of an assessment. Conversely, modifications to assessment are changes to content that may make assessments more accessible or comprehensible to students.

Standards do not presently exist for modifying EGRA for students who are blind or have low vision and students who are deaf or hard of hearing, due to limited research on the topic. Therefore, the MCSIE team used IDP's EGRA rubric to score relevant elements of the braille and deaf/hard of hearing (DHH) EGRAs but did not evaluate the accommodations and modifications made to the tools to enable their use for this student population. However, the team did document the accommodations and modifications provided for each subtask on the braille and DHH EGRAs for reference.

For the braille EGRA, administration accommodations included extending the time for prompting, extending the allotted time for subtasks, and changing the layout for braille (e.g., a standard EGRA presents letters and individual words to students on a page in a grid layout consisting of five or ten items per row, but the braille EGRA presented items to students who are blind in a list[35]). For the DHH EGRA, instrument modifications and administration accommodations included providing examples (expressive vocabulary), videos of reading passages and comprehension questions in

[32] For example, status would refer to "yes" or "no", and type would refer to disability category such as "deaf" or "blind."

[33] IDP does not intend to evaluate ACR-Cambodia's full-scale standard EGRA because data are not disaggregated by disability status, making this outside the scope of MCSIE.

[34] ACR-Cambodia refers to the EGRA as the Language and Literacy Assessment. To maintain consistency across MCSIE countries, given that all use the EGRA as a basis for assessing reading, this review will use the term "EGRA".

[35] ACR-Cambodia developed but did not end up administering a large-print version of the EGRA due to all available children being braille readers. Project staff indicated that the font size for the large-print EGRA was informed by the director of blind education at Cambodia's National Institute for Special Education (NISE).

CSL, changing and reducing the number of words in the familiar word subtask, and adding CSL vocabulary. Additionally, the DHH EGRA accommodations included extending the time for prompting and extending the allotted time for the subtask. The detailed accommodations and modifications for each adapted EGRA are outlined in Annex F.

7.5.2 Evaluation of ACR-Cambodia's EGRA (Adapted Language and Literacy Assessment)

Highlights

Strength

- ACR-Cambodia utilized a collaborative process with local experts to produce adapted EGRAs for students with vision or hearing disabilities and recruited appropriately qualified individuals to administer the pilot test to students.

Missed Opportunity

- Given the technically complex nature of EGRA adaptation, ACR-Cambodia may have benefitted from recruiting additional international expertise related to the deaf or hard of hearing EGRA.

ACR-Cambodia's efforts to adapt and field test assessment instruments has added valuable information to the limited evidence related to measuring reading gains among students who are blind or have low vision and students who are deaf or hard of hearing. Interviews with technical staff indicate that seeking guidance from similar efforts undertaken in other contexts provided valuable insights that informed the project's work in Cambodia. Still, there remains ample room for continued testing to learn what does and does not work well, both technically and logistically.

The process for determining subtask selection and adaptation is generally well-documented in ACR-Cambodia's technical report about the adapted EGRA pilot although some details were lacking and were clarified upon discussion with project staff. The ACR-Cambodia team used the standard EGRA as a basis for the adapted EGRAs for students who are blind or deaf or hard of hearing. As with the standard EGRA, preschool students in the field test only received the subtasks aligned with their curriculum, and grade 1 and grade 2 students received all subtasks. Technical working groups convened several times to adapt the braille and deaf or hard of hearing tools. Staff indicated that for the deaf or hard of hearing EGRA in particular additional expertise related to assessing children who are deaf or hard of hearing would have been helpful, and more adjustment and testing of the tool is needed. This conclusion is underscored by research showing that signing children learn to read through a fundamentally different process than learners who are hearing.

No formal language analysis was conducted for the adapted EGRAs. However, classroom teachers were able to confirm the appropriateness of the braille vocabulary used as well as the CSL signs based on their experience with the early grade curriculum. More detail and transparency on these points in the reporting would benefit the community of inclusive education practitioners in ongoing efforts to appropriately assess literacy among learners with disabilities.

For example, if formal language analyses were undertaken, reports on these analyses could be used to frame activities in other countries.

Selecting and training assessors for a standard EGRA can present unique challenges in terms of recruiting individuals with the necessary skillset (RTI International, 2015b). The adapted EGRAs require assessors to have additional skills, given the populations of interest. Commendably, ACR-Cambodia was able to identify enough individuals with the necessary skills—reading braille and signing in CSL—for the small field test. The technical report provides scant details on the two assessor training workshops, which each took four days. However, discussions with staff indicated that training included demonstrations, practice in pairs, and practice with children in schools. Another standard component, the assessor accuracy measure (AAM), was completed and the findings were used to guide fieldwork and assessor roles. The report mentions some assessors had difficulty uploading data in the field, which indicates that more time and practice using the Tangerine data collection software may have been needed. Still, the project nimbly addressed technology challenges by providing support staff for facilitating timely data entry.

Despite the gaps in the reported information described above, the technical report aligns in many ways with standards for EGRA reporting and provides a relatively clear description of the overall process, including limitations and challenges encountered. More detail, within the report or in an annex, related to the process of preparing and analyzing the data would likely benefit future researchers undertaking adapted EGRAs, particularly if there are any differences in analysis procedures that should be considered in contrast to a standard EGRA.

As a result of the pilot and reflection up on it, project staff indicated a desire to make further revisions to the adapted EGRA tools and conduct subsequent field testing but acknowledged that the impact of the COVID-19 pandemic on schools and the overall timeline of ACR-Cambodia implementation may not allow for this. Staff expressed the need for more research and testing related to the presentation and content of the subtasks to students receiving the adapted EGRAs, ideally with larger samples of students. They also emphasized the need to more fully understand the learning environment and resources available for these students and the resources available for their teachers.

7.6 Sustainability

Highlights

Strength

- The core ACR-Cambodia reading package is likely to be sustained beyond project completion thanks to ACR's approach to facilitate government ownership and endorsement.

Missed Opportunity

- The project has not yet been able to finalize plans for future pathways to formal education for students identified and educated through the Bridge Program.

Sustainability has been a major component examined throughout the MCSIE analysis. In the case of the ACR-Cambodia project's instructional approaches, there are several possible contributors to sustainability as well as concerns or limitations to post-project sustainability. The following subsections discuss sustainability as it relates to the TLM package generally and to the Bridge program specifically.

Sustainability of TLMs

ACR's approach to materials development has regularly considered sustainability and scalability, with project leadership focusing on producing high-quality materials that are simple to use instead of more complex and less sustainable materials such as puzzles and individual games. Furthermore, many interviewees discussed that the utilization of teachers' guides was supportive of sustainability, with one interviewee noting that ACR was "different from the previous approaches, with enough activities for teachers to use the book and it is easy." ACR-designed guides that now are under government ownership means that other NGOs will not have to create parallel or alternative guides for teachers to use. Instead, final materials reflected ministry ownership and control through branding with official ministry logos. The close collaboration with the government is supportive of sustainability and has been highlighted further in the sections above.

The project's materials developers were also quick to attribute the skillsets developed by publishers, illustrators, and writers as being supportive of ongoing efforts to produce inclusive TLMs in Cambodia. Furthermore, all materials produced to date are available for reuse under Creative Commons licensing, and a vast digital library has already been established for educators and students to access across the country. Key informants observed that sustainability was improved due to the government investing its own funds into printing materials and engaging as active partners. Finally, all project TLMs are printed in Cambodian publishing houses, an important nod to sustainability as compared to outsourcing printing of resources at a national scale.

During interviews, respondents also suggested additional activities that may promote sustainability of TLMs. A common suggestion was the expansion of project activities into grades 3 and 4 and additional support to mathematics programming. Some respondents also discussed the importance of continuing a school-based mentoring approach through government leadership to help teachers build automaticity with the TLMs and use project materials such as the observation forms to enable this work. Furthermore, with regard to materials development, one respondent pointed to the government's five-year cycle of curriculum review as an opportunity to lobby for a revision to the official textbook, noting that the use of supplementary student books alongside official textbooks is an unsustainable and costly strategy. Finally, multiple respondents supported the project goal of having local publishers continue to print the TLMs after the project closure, explaining that ACR-Cambodia has already begun dialogues with an aim of advancing this goal.

Sustainability of Bridge Program

As for the Bridge Program, interviewees expressed concern and grave uncertainty about the sustainability of support to Bridge students after the project concludes. This concern was also raised by USAID at the MCSIE inception visit in 2019. The inclusive education team states that they are working on an exit strategy that would transition responsibility for the Bridge Program to the government, including a "lessons learned" workshop to share findings and progress with various stakeholders (with the planned engagement of DPOs) to inform the work in deaf education and needs of inclusive education in the future.

Government officials stated that if learners had vision or hearing related disabilities, they would "push them to special education high school[s]" so that they can learn more consistently. Indeed, several families also indicated they want their children to transition to segregated schools versus integrated or general education classrooms. This seems to contradict ACR-Cambodia's purpose of promoting inclusive education and put stakeholders at odds; however, this was also the view of members of the project staff (and indirectly, reports from parents) who felt that general education classrooms were not yet prepared to support the needs of learners who are deaf or hard of hearing. For inclusion to succeed, attention must be paid to building support in general education classrooms.

Several additional questions remain around the best strategies to support programs like Bridge in the future, and these concerns also affect segregated special schools. This includes uncertainty on how best to continue supporting the development of CSL-proficient teachers in country and how out-of-school learners in provinces beyond Kampong Thom can be reached. Additional questions surrounded how learners will be provided with assistive devices. The provision of assistive devices, such as hearing aids or eyeglasses, can be costly and key informants raised doubts about the government's capacity to assume this role.

7.7 Instructional Approaches: Analysis and Conclusions

Overarching finding: In formulating an instructional approach that would help support EGR development for Cambodian children with and without disabilities, ACR-Cambodia has taken a strategic approach that focuses heavily on local collaboration. Such collaboration and consultation have made possible the production of a vast suite of TLMs that are grounded in an evidence base and responsive to the local context. While the widespread distribution and access to such materials is supportive of learners with and without disabilities, more work can be done to embed UDL principles into teachers' guides and deepen teachers' mastery of inclusive teaching strategies.

As is the case with all conclusions in this report, they are interim in nature and based off only document reviews and interviews. Further data collection particularly related to instructional practices—via classroom observations and school-based interviewing—will deepen MCSIE's future evaluative findings.

IDP's overall findings related to the ACR-Cambodia instructional approach are described below:

1. **The development of a diverse suite of TLMs served as a strategy to embed scaffolded and explicit evidence-based practice into EGR instructional routines.** The production of teachers' guides for preschool through grade 2 represents a strong development in the education sector in Cambodia—which did not previously standardize teachers' guides—especially as the literacy package is expanded to pre-service training. The linkage of these guides with numerous decodable texts, adapted materials, sensory stories, and other resources promotes the engagement of learners with diverse needs, including those with disabilities.

2. **Teachers' guides explicitly embed inclusive strategies throughout, but the strength of this approach varied between semesters and grades, and inclusion tips were absent in grade 2, semester 2.** Principles consistent with a UDL approach were located across all guides but were noticeably more prevalent and diverse in certain guides as compared to others. The UDL principle of "multiple means of action and expression" was least observed among UDL principles. Also, the inclusion tips embedded into grade 1 became more redundant in grade 2 and disappeared altogether in grade 2, semester 2. Future efforts to update or revise these materials may consider enriching the diversity of instructional strategies described, with particular focus on grade 1, semester 2 and grade 2, semester 1, by increasing peer support for struggling learners, using demonstrations and role play, and practicing using songs and games. Additionally, more explicit guidance throughout guides on how to adjust instruction based on informal classroom-based assessment could be beneficial.

3. **The project negotiated with government collaborators to slow the pace of instruction in grade 1, a strategy which may enable improvements in learning for students with diverse needs.** Noting the quantity of new phonics content introduced in the official grade 1 textbook, the project collaborated extensively with stakeholders to produce a scope and sequence which is accessible to the developmental pace appropriate for young learners. These changes then carried over in the ministry's realistic approach to slowing the pace of content upon resuming lessons after COVID-19 school closures.

4. **The project has helped facilitate extensive technical skill development on literacy materials production in Cambodia.** The project has intentionally consulted and partnered on an ongoing basis with government counterparts in addition to engaging publishing and materials experts within its own staff. This has been associated with government respondents who expressed familiarity with new methods including the five components of literacy and participatory teaching methods. It has also supported the writing and publishing industries to develop an increased awareness of reflecting inclusive principles in materials development.

5. **Thoughtful political savvy and perceptiveness to government practices has influenced the success of this project's inclusive instructional approach.** Strong government collaboration has made possible the development of a student supplementary

book, the use of scripted teachers' guides, and the slower pace of instruction, where no such efforts had previously succeeded at this scale in Cambodia. It has also made possible the government's newfound insistence that any future NGO projects in the early grades make use of these existing resources instead of parallel or alternative curricula. The project's response from government officials varied by activity, but feedback from government respondents involved in materials development was overwhelmingly positive.

6. **The Bridge Program is well-received by government counterparts, and additional resourcing for inclusive teaching and learning in general education settings would expand the reach of the inclusion team's efforts.** The project has admittedly confronted many lessons learned over the Bridge component's implementation, including challenges around curriculum development, recruitment of appropriately qualified teachers, and an unclear strategy around linkage of these activities with broader ACR-Cambodia inclusion initiatives. Furthermore, the Bridge Program appeared to utilize more of the inclusion team's manpower than its support to inclusive education in general education classroom contexts. Specifically, the eight-person inclusion team has focused chiefly on one province with only 13 Bridge students, while additional human resourcing in combination with support to Bridge students may have also benefitted learners in general education settings.

7. **The Bridge Program has unanswered questions about the resourcing needs for scalability or sustainability, including uncertain plans of how current students will transition into formal education.** Bridge learners are supported to develop foundational CSL skills that may make possible their eventual transfer to formal education. If they stay in their communities and attend integrated classes with other students who are deaf, there will be continuing challenges around the CSL proficiency and training of integrated classroom teachers to deliver a sign-language rich learning environment. If they transfer to the segregated special schools, they will have to move away from home and live in boarding conditions, as no such school exists in their province. Future cohorts of children brought into Bridge would likely face similar unknowns.

8. **The adapted EGRAs for braille and CSL represent an advancement in monitoring learner performance for learners with disabilities but require more time and further validation.** The process for developing these adapted assessments was well-documented and generally consistent with standards for typical EGRA reporting. Further opportunities for development have been highlighted around language analysis for adapted tools, selecting and training assessors, or utilizing the large print tool as needed, for example.

7.8 Instructional Approaches: Initial Lessons Learned

The process of reviewing information for this interim report revealed some initial lessons learned that can be applied to both future programming in Cambodia as well a broader global audience working on inclusive education projects. Exhibit 20 provides initial lessons learned based upon

the report findings related to Instructional Approaches. These lessons learned are gleaned from both project strengths and missed opportunities. In some cases, the “lesson learned” described is a strategy that ACR-Cambodia already successfully utilized; nonetheless, its use serves as important guidance for other future projects.

Exhibit 20. Findings and Lessons Learned from Instructional Approaches

Finding	Lesson Learned
1) The development of a diverse suite of TLMs served as a strategy to embed scaffolded and explicit evidence-based practice into EGR instructional routines.	Scaffolded use of TLMs and diverse supplementary materials has the potential to support literacy development for all learners including those with disabilities.
2) Teachers' guides explicitly embed inclusive strategies throughout, but the strength of this approach varied between semesters and grades, and inclusion tips were absent in grade 2, semester 2.	The use of inclusive teaching strategies should be widespread across teachers' guides of all levels, incorporate UDL approaches, and guide teachers on adapting instructional approaches based on formative student assessments.
3) The project negotiated with government collaborators to slow the pace of instruction in grade 1, a strategy which may enable improvements in learning for students with diverse needs.	Projects should advocate for a scope and sequence that is consistent with evidence-based approaches to early grade literacy development and contextually tailored based on language of instruction and pace of instruction.
4) The project has helped facilitate extensive technical skill development on literacy materials production in Cambodia.	Projects producing inclusive TLMs should engage government counterparts and the publishing industry to the maximum extent feasible in order to sustain inclusive methodologies beyond project lifetimes.
5) Thoughtful political savvy and perceptiveness to government practices has influenced the success of this project's inclusive instructional approach.	Projects should ensure government counterparts with decision-making authority are engaged throughout the materials development processes to facilitate buy-in and negotiation around methodological approaches to inclusive literacy.
6) The Bridge Program is well-received by government counterparts and additional resourcing for inclusive teaching and learning in general education settings would expand the reach of the inclusion team's efforts.	Projects should conduct capacity assessments to analyze the greatest areas of need related to inclusive education for ALL children with disabilities, linking any novel interventions to appropriate human resourcing that supports access to education for a wide diversity of learners with disabilities, and not just those with specific types of disabilities.
7) The Bridge Program has unanswered questions about the resourcing needs for scalability or sustainability, including uncertain plans of how current students will transition into formal education.	To the greatest extent possible, projects should avoid creating unsustainable interventions by mapping the long-term trajectory for children newly engaged in accessing education before such children receive project support and by listing any potential risks or consequences of such programming and the potential for achieving the goal of inclusive education.
8) The adapted EGRAs for braille and CSL represent an advancement in monitoring learner performance for learners with disabilities but require more time and further validation.	Projects should ensure adapted EGRA activities receive ample human resource support and time, including contingencies for extra time related to tool development or testing.

8. Evaluation Questions 5: Unintended Consequences

The chief goal, or *intended consequence,* of ACR-Cambodia's programming was to improve early grade reading skills of learners, including those with disabilities, in target grades and provinces. To achieve this ultimate objective, the project delivered programming consistent with its three desired intermediate results related to inclusive teaching, systems strengthening, and MoEYS oversight, described in this report's section on Process. However, in the course of delivering these activities to reach the project's chief objective, unintended consequences—either positive or negative—have also arisen.

The purpose of this section—and MCSIE's fifth evaluation question—is to investigate unintended consequences that may have materialized as a result of ACR-Cambodia programming. This includes evaluating how, why, and in which contexts these consequences have occurred and what impact they may hold beyond the life of the project. To glean data on this topic, IDP incorporated questions into its interview protocols to probe for unintended consequences; however, most respondents flagged the *intended* consequences of the ACR-Cambodia project as opposed to those which resulted from the project but were not intended. These observations have been embedded in the above sections of this report. As a result, IDP inductively generated possible consequences through its coding and analysis, yet these analyses will all benefit from further investigation during the final stages of this evaluation.

The following text box articulates an overarching observed unintended consequence and is followed by multiple subsections which hypothesize how this consequence may occurred.

Unintended consequences overview:[36] Despite ACR-Cambodia being described as fully inclusive, the project in practice promotes some activities that are not consistent with inclusion as articulated in the CRPD. For example, although TLMs are generally reflective of UDL principles that would support learners with diverse strengths and needs, the project would have benefited from having the substantially sized and well-trained inclusive education team focus not only on learners who are deaf but also support a wider diversity of learners with disabilities in general education settings. While segregated settings appropriately offer students who are deaf access to an education in a CSL rich environment, in accordance with the CRPD, other categories of learners with disabilities should have access to education with peers without disabilities. There was a missed opportunity of the team to support learners who are deaf while also advocating for the advancement of more inclusive systems for other learners with disabilities.[37] Also, ACR-Cambodia's extensive training efforts at both the in-service and

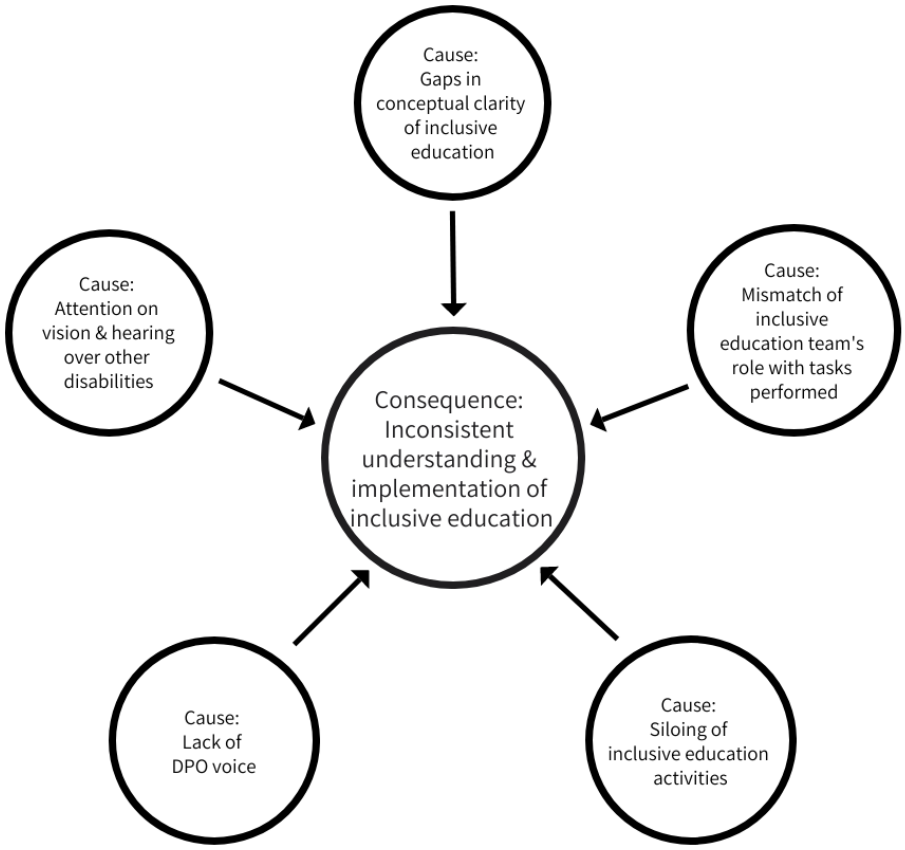
[36] These findings are interim in nature, as further in-person data collection is needed to validate and learn more about the unintended consequences of project implementation.

[37] Recognizing that the definition of inclusion for persons who are deaf differs from other disability groups, such a distinction may not be well-understood by the general population, which may conflate these efforts with preferred approaches to inclusion for persons with disabilities in general.

school-based professional development levels offer minimal focus on explicit inclusive education issues, a striking inconsistency between the project's stated objective and its actual implementation related to inclusion. This may have an unintended consequence of producing a cohort of teachers who claim to be trained on inclusive education yet are unable to demonstrate principles of inclusion in practice.

The following sections elaborate on possible causes for this inconsistent understanding and implementation of inclusive education principles. They are outlined in visual form through the exhibit below.

Exhibit 21. Possible Contributors to Unintended Consequence



1. **From solicitation to implementation, there was not a consistent definition or shared conceptional understanding of inclusive education.**[38] Clearly defining inclusion for people with disabilities must start at USAID's solicitation stage and must use "significant language" around disability for the implementation to follow (Hayes, Swift, Shettle, & Waghorn, 2015, pp. 4-5). As discussed in the Process section of this report, the solicitation

[38] As noted in the Limitations section of this report, IDP is substantially limited in its analysis of the project's alignment with the solicitation because the evaluation team only had access to the ACL solicitation and not the original ACR-Cambodia solicitation.

for the ACL-Cambodia addition does not provide a clear definition of inclusive education, nor does it outline a clear theory of change as to how its principal objectives will be achieved. IDP has highlighted throughout this report how the absence of a definition may have potentially caused observed unintended consequence of inconsistent inclusive education programming.

The solicitation highlights the need to provide educational opportunities to students with "mild disabilities" and students with hearing- and vision-related disabilities; however, it does not require the IP to support all students regardless of the category of disability or their support needs. Additionally, and notably, the solicitation does not draw attention to the desired goal of learners accessing education in inclusive school settings, even if such a goal is progressively realized over time.

Inclusive education scholars have remarked on the "elasticity" of defining the term "inclusive education" depending upon its intended use and the vulnerabilities this offers in the way education programming may be delivered (Slee, 2011, p. 64). In responding to these inconsistencies, future USAID programs may benefit from clearly defining inclusive education prior to project implementation, noting that the definition or conceptual understanding of inclusive education may vary to some extent by country and context. For example, USAID's *How-To Note Disability Inclusive Education* (2018) states that "inclusive education means having one inclusive system of education for all students, at all levels … with the provision of supports to meet the needs of students with disabilities" (p. 1). In addition, a shared understanding of inclusive education consistent with the CRPD and General Comment No. 4 is often seen as necessary for inclusive education programming to be implemented with fidelity. General Comment No. 4 provides specificity on the delivery of educational services through social and rights-based models for children with disabilities, which are models preferred by USAID for educational programming (USAID, 2018b). This definition of inclusion states:

> Inclusion involves a process of systemic reform embodying changes and modifications in content, teaching methods, approaches, structures, and strategies in education to overcome barriers with a vision serving to provide all students of the relevant age range with an equitable and participatory learning experience and environment that best corresponds to their requirements and preferences. (United Nations, 2016, p. 4).

General Comment No. 4 also describes an important distinction between *integration* and *inclusion,* using the following definition:

> *Integration* is a process of placing persons with disabilities in existing mainstream educational institutions, as long as the former can adjust to the standardized requirements of such institutions. *Inclusion* involves a process of systemic reform embodying changes and modifications in content, teaching methods, approaches, structures, and strategies in education to overcome barriers with a vision serving to provide all students of the relevant age range with an equitable and participatory

> learning experience and environment that best corresponds to their requirements and preferences. (United Nations, 2016, p. 4)

The above definition from the CRPD helps to draw attention to inclusion as a term that differs from integration (or segregation) in that it promotes the access of learners to education in mainstream educational institutions with support, where learners without disabilities would typically access an education. As the subsequent sections will elaborate, this does not appear to be the conceptual definition of inclusion utilized by many project staff and stakeholders. This includes some government counterparts who often used *inclusion* as a catch-all phrase to describe any efforts to support disabilities, such as one interviewee who gave an example of inclusion as "the integration class where they implement the inclusive [education] at schools." And, while segregated settings appropriately offer Bridge students who are deaf access to an education in CSL, it does not appear that the inclusion team used this opportunity to advocate for systemic improvements in access to inclusive settings for learners with other disability categories[39].

One project staff member clearly highlighted this concern underpinning project design and delivery by stating the following:

> Even at the stage of developing their projects, [USAID] should probably focus more on inclusive education … I would advise USAID, have the CRPD General Comment 4 as the framework. And yes, respond to deaf education and all of that, but don't miss out this opportunity of only focusing it on students who are deaf and blind.

Although ACR-Cambodia's workplans and reports clearly identify goals of supporting inclusive education, the project never specified in these documents exactly what it meant by inclusive education. A review of quarterly and annual reports revealed that the project also did not distinguish how it defines children with "mild" disabilities—as referenced in the ACL solicitation—who would participate in the project from others who would not. This ambiguity was encountered in practice when selecting learners for the project's Bridge Program, where some learners with cerebral palsy or medical conditions were excluded from being eligible for this activity, and project leadership described feeling conflicted about how and where to draw the line as to whom the project supports.

The project's situational analysis conducted in 2018, however, does define inclusive education, stating that "for the purpose of this report, inclusive education is defined as educating children with disabilities with their peers without disabilities in age-appropriate classrooms" (Hayes & Bulat, 2018, footnote 1). Inclusive education was also clarified in training materials, stating that "inclusive education is the education of all students, including student with disabilities as well" (grade 1 training package). The training materials also stated that there is no "one-size-fits-all approach" to inclusive education

[39] For example, the government's Inclusive Education Policy frequently links its goals of inclusive education implementation with the establishment of additional integrated education classrooms.

and that the project will support all students with disabilities, including those with learning difficulties. Though training documents do not address educational setting within the definitions of inclusive education (i.e., general education classes, integrated classes, etc.), they do cite research stating students with disabilities perform better academically when educated in the general education classroom and the importance of social and academic inclusion, which demonstrates an understanding of inclusive education consistent with General Comment No. 4.

In operationalizing the concept of inclusive education in practice, project staff, however, did not always understand a central project vision. One project staff member exemplified an uncertainty about project definitions by stating, "We're not quite overall focusing on inclusive education. It would be nice to be clear about what exactly [inclusive education] means." Such uncertainty among project staff potentially contributed to the inconsistencies in project implementation for inclusion.

2. **The inclusion team's core activities could potentially lead to a greater focus on segregated and integrated education than the intended focus of inclusion in general education settings.** The absence of a joint conceptual understanding of inclusive education allowed for ACR staff to develop their own interpretation of inclusive education and establish activities sometimes lacking in conceptual clarity. While it is important to note that segregated settings appropriately offer students who are deaf access to an education in CSL, the project would have benefited from using the inclusion team's expertise to also support learners with disabilities in general education settings. Through conducting KIIs with various project staff, this point was particularly salient in the different ways the inclusion team understood and enacted inclusion as compared to the literacy team. Ambiguities around the intended purpose of the inclusion team at the early stages of implementation may have contributed to this outcome.

   Specifically, interviews with both national and international inclusion team staff revealed a focus geared most heavily toward learners who are deaf and studying in the Bridge Program, although subnational staff were also adept at describing how their role includes observing inclusive teaching and learning practices in general education classrooms. Multiple respondents described the Bridge Program as being an integration model, even though staff were employed to serve in roles supporting inclusive education.[40] These respondents also described the project's work more generally with segregated schools and integrated classes as being the focus of their work, which was consistent with how they understood the original design of the program at the USAID solicitation stage. For example, one project staff member stated:

[40] The qualification around defining inclusion for students who are deaf and hard of hearing, as articulated by the World Federation of the Deaf (WFD), is discussed further in this report's section on the Bridge Program. Specifically, in the case of Cambodian schools that are not yet able to offer general educators or full-time interpreters fluent in sign language in mainstream classes, integrated classes with teachers proficient in sign language may be the most appropriate setting for learners who are deaf.

> A lot of the inclusive education stuff that we were doing was in separate settings, we were at the special schools, we were working with kids who are deaf. And, and part of that was just the design of what we were supposed to be doing.

These varying perspectives suggest that inclusive education is perceived differently by individuals depending on their roles in the project and that this may also be linked to the way the inclusive education team's role was originally designed. As a result, many inclusion team members spent significant time supporting the Bridge Program and focused on learners in general education settings to a lesser extent.

In contrast to the inclusion team, interviews with both national and international project staff whose primary tasks related to *early grade reading* indicated a conceptual understanding of ACR-Cambodia that considers inclusion as being embedded into all aspects of programming. For example, one respondent articulated that "inclusive education has been mainstreaming in all aspects of the program" including the embedding of inclusive principles into the TLM development and teacher training activities in mainstream settings. Another respondent echoed this by stating inclusion is so "ingrained in our program design" that the principles are considered robustly in all literacy instructional design.

Respondents focused on EGR were also adept at explaining the ways in which inclusive teaching strategies benefit all learners, including those who are struggling learners or learn in different ways, and the ways in which materials had been designed to consider these learners' needs. Such a description is aligned with the observation among ACR staff that many students in general education settings do not have access to screening and referral systems that would identify anything other than hearing or vision difficulties, and thus, the project has been designed to consider support for both struggling learners and those with unidentified disabilities. However, more data collection would be required to understand if, by softening the message on inclusive education, teachers and school leaders are more likely to be receptive to the concept of inclusive education, creating a positive consequence, or if the message was too subtle and lost, creating an unintended negative consequence.

6. **Inclusive education activities sometimes operate in a siloed manner and are not part of all programming.** While the ACL solicitation helped to embed an overt focus on inclusive education throughout project activities, the original ACR-Cambodia project design was reported by project staff to be less focused on inclusive education. As described in the Process section of this report, some inclusive education staff were recruited or onboarded a year or more after the original ACR-Cambodia project began. As a result of the added nature of inclusion to an existing project, some staff have observed that inclusive education activities have operated in a siloed manner apart from the rest of the ACR-Cambodia project, an impact that may have been reduced if the activities were further embedded in the original project solicitation.

One example of this was observed in the Training section of this report, where inclusive education staff were engaged only to develop a 90-minute session on inclusive education in the grade 1 teacher training and were neither involved in the development of other training content nor its delivery. The potential consequence is that teacher trainees receive only a shallow introduction to inclusive education and not with a degree of depth that would support their skill development in accommodating the needs of learners with diverse needs. This was also observed by one project staff member, who described the inclusion aspects of the training program as an "afterthought." This individual explained this happened despite the inclusion team's focused role on screening and the Bridge Program:

> If someone sat down with us [at the beginning of the project] and said, we want to incorporate you all in the design of the overall project more, I would imagine that that would lead to an increase in knowledge and skills in [inclusive education]. But I think the inclusive education was kind of an add-on to a project that was already going. So again, by the time that we started, the training was well developed. And then the initial materials were well developed.

An added challenge to a more genuinely embedded approach to inclusion in the project was government buy-in. Multiple project staff, along with multiple MoEYS interviewees themselves, commented that the government has historically and presently expressed a greater interest in this project around early grade learning than it has around issues of disability-inclusive education. The above staff member suggested that the government buy-in on the reading package designed by the project had already taken place by the time the inclusive education components were added, and so conversation with government counterparts on inclusion at the very beginning of the project would have been an asset.

4. **The voice of persons with disabilities was not consistently considered in the project design and implementation.** As discussed in multiple sections of this report, DPO engagement was absent as a requirement of the ACL solicitation, and linked to this was the absence of planning for DPO involvement in most project activities such as teacher training. A possible consequence of this is that the voices of persons with disabilities were better reflected or integrated into certain activities more than others. USAID's 1997 Disability Policy strongly recommends that USAID projects involve DPOs in the design, implementation, monitoring, and evaluation to ensure that the lived experience and voices of people with disabilities are integrated into USAID programming (USAID, 2018b). The need for DPO involvement in disability-related policies and programming is also mandated in Article 4 of the CRPD (United Nations, 2006).

   In the case of ACR-Cambodia, not involving the very organizations who represent the intended beneficiaries of ACR's inclusive education activities represents a missed opportunity to confront some constraints to accessing inclusive education and may inadvertently send the message that experts on disabilities are those who work on internationally funded projects rather than those who organize for disability rights in Cambodia itself. This is a conclusion which has been strongly supported by IDP's data

collection partner CDPO in its review of this report. Perhaps the most obvious example of this missed opportunity is around teacher training, where instead of inviting individuals with lived experiences of disability to talk about inclusive education, teacher trainees were tasked with simulating the experience of having a disability themselves.

While DPOs in the target provinces have limited inclusive education technical expertise, meaningful engagement with individuals who hold a lived experience of disability is important and consistent with international commitments stemming from the CRPD. Such involvement in future activities may support systemic contributions to sustainability, awareness-raising, and community engagement around disability inclusion. For example, involving DPOs in ACR-Cambodia programming could have helped to identify and address additional systemic barriers to inclusive education that may exist (such as school infrastructure and access for children with physical disabilities) and to spread awareness of the initiative to generate community awareness-raising and buy-in on the promotion of inclusive education. This is consistent with Blake's research (2013) that argues that community engagement in education programming in general is important, as it often leads to acceptance of new approaches and sustainability.

5. **The project solicitation had a clear focus on disability but did not clearly describe the diverse types of disabilities present, and this may have inadvertently led to a prioritization of hearing and vision disabilities instead of working with all types of disabilities.** Prioritizing certain disability categories in development projects is a challenge in other USAID programming globally and is a key finding of the USAID 2017 *Inclusive Education Landscape Mapping Review* (USAID, 2017). As for ACR-Cambodia, the ACL solicitation focused more on providing resourcing for students with hearing or vision difficulties than other disabilities, which is also consistent with the categories of disability most prominently supported in Cambodia's own 2018 Inclusive Education Policy and in the government's special schools. The educational needs of learners with intellectual disability, learning disabilities, communication disabilities, or multiple disabilities were, by and large, not addressed in the design and subsequent implementation of ACR's inclusive education activities—even though there may be many children with such disabilities in schools or excluded from schools.

   Nonetheless, the project has made some efforts to support learners with other disabilities and has created resources such as social stories or easy-to-read texts that may be appropriate for learners with autism or intellectual disability, respectively, in addition to learners without disabilities. The EGR team has also been quick to emphasize the way lesson plans and materials, such as the use of color-coded letter flashcards, have been designed to promote engagement and accessibility for all learners. Additionally, ACR-Cambodia made an effort to expand the categories of disabilities that could be supported by the project by identifying local provider organizations as potential referral sources for families and caregivers of children with intellectual disability and mental health disabilities. Even with these efforts, however, students with visual and hearing disabilities remained the primary focus.

Reports and interviews attributed the lack of programming for children with other disabilities to the limited national infrastructure and resourcing to identify and support such learners in inclusive settings or who are out of school. As project staff explained at the 2019 inception visit, at the level of school-based screening, hearing and vision were the only possible disabilities that had simple tools that educators could use to screen for referrals in schools, without risking the use of unreliable tools such as screening for intellectual disability[41]. Project staff also recognized an ethical concern around identifying learners with intellectual disability without national infrastructure or expertise to support these learners in an inclusive manner. Despite this ethical approach, an unfortunate consequence of the screening activities was the extremely small number of learners identified with hearing or vision needs; the large number of inclusive education field staff had a smaller number of learners to support in inclusive schools than if more learners had been identified.

Despite the constraints around identifying learners with disabilities other than those related to hearing and vision, there are some risks to this narrow approach. For example, according to some interview respondents, prioritizing visual and hearing disabilities took a focus away from engaging experts as project staff who have general inclusive education experience as well as expertise in other disability categories. This was reflected in the eventual focus of the inclusive education team primarily on issues related to deaf education. In addition, while subject to further verification in ongoing data collection, there is a risk that focusing on hearing and vision with teachers unintentionally reinforced the impression that these disabilities merit greater focus than learners with other support needs or that the only types of disabilities present in a teacher's classroom are related to hearing and vision.

8.1 Snapshot: COVID-19 Programming in ACR-Cambodia

The following section was not originally planned in the design of this interim report but has been generated to reflect the rich, responsive programming delivered by ACR-Cambodia since the outbreak of the global pandemic. Specifically, the COVID-19 pandemic represented an unplanned challenge for education programming globally, and the project's speedy, organized, and creative response to this crisis may be informative for future programming.

Highlights

Strength

- The project was largely successful in rapidly distributing TLMs to learners at home, producing and disseminating online content, supporting a return to hybrid instruction, and re-envisioning the way in which teacher professional development was delivered.

[41] Consistent with ACR's conclusion, IDP is unaware of any best practice research that suggests those who are not qualified medical personnel should screen for intellectual disability.

Missed Opportunity

- Children with disabilities in general education schools did not receive any known additional project support during this pandemic to promote their engagement or participation.

The realities of the COVID-19 pandemic have caused more than 180 countries to enact temporary school closures, which has left an estimated 85% of the world's students out of school. Exacerbating previously existing inequities (e.g., living in poverty, lack of access to health care, limited access to food and clean water), the pandemic has particularly affected children with disabilities and their families, placing them at risk of losing their already precarious access to education, health, and social protection (World Bank, 2020). In the education sector specifically, prolonged school closures and transitions to remote learning have compounded the exclusion of learners with disabilities, such as those who previously benefitted from teacher attention, behavior support, or peer interaction and who instead find remote learning inaccessible to their specific needs (World Bank, 2020).

Instructional disruption due to COVID has directly impacted the way in which ACR-Cambodia has implemented programming. From classroom closures to the rapid development of online supports for parents and caregivers to delayed or cancelled trainings and a reallocation of project staff, the realities of COVID have presented significant challenges to the implementation of the project. Despite these challenges, the project demonstrated a number of successes during the pandemic, including 1) adapting project management and responding rapidly to distribute learning materials to students and their families, 2) distributing the Bridge Program materials to students who are deaf and their families, 3) providing students and families accessible online learning platforms like Facebook and YouTube, 4) using literacy coaches in new and creative ways to support remote learning and teacher training, and 5) engaging government counterparts to agree not to accelerate the pace of instruction upon return to school. The slowed pace of instruction was discussed further in this report's section on Instruction, while each of the other points is discussed further below.

Distribution of TLMs and Distribution and Dissemination of Online Content

Due to the pandemic, the government announced that national school closures were to begin on March 16, 2020. Project staff noted during interviews that teachers were given prompt guidance from MoEYS in terms of the initial shift to distance learning. This was then passed along to parents and caregivers through "paper-based guidance" on how to support their children with the shift to online learning, which included worksheets and digital information through Facebook Messenger.

Project staff noted that once the school closures were announced nationally there was an immediate project response to ensure students and teachers had access to hard copies of TLMs. Project staff responded by delivering TLMs to schools along with "some short guidance"[42] for teachers and caregivers on how to use the second semester's materials. Student TLMs included

[42] IDP will review the student and teacher TLMs created specifically during COVID in the next phase of the MCSIE process evaluation.

distance learning booklets provided in March 2020 to students in preschool, grade 1, and grade 2. According to project staff, between 90-95% of families received these booklets. Teacher TLMs included teachers' guides for grades 1 and 2. These were delivered to schools, and school directors organized the distribution to teachers who had not yet received training due to the pandemic. Some project staff confirmed they also considered font size as an inclusive component in their decisions about providing distance learning materials but not background/contrast considerations.

The distance learning booklets are consumables that parents were encouraged to use to help them better understand how to use the printed materials in student textbooks. For students who had access to textbooks, parents were instructed to use the distance learning booklets to know which pages in the textbook to look at on a particular day, and then every third lesson, parents were instructed to give students a brief assessment to understand the child's progress. Parents were also encouraged to look at the daily Facebook Messenger posts to gather more insight about daily lessons and content.

In preparation for schools reopening in September 2020, a plan for hybrid instruction was put in place to address content missed due to school closures. This plan guided teachers to use the teachers' guides and to review semester 1 content first, as some students had been out of school between six and nine months. Teachers were advised to "teach as much as they can," recognizing that students were also receiving daily instruction in half the timeframe of a typical school year. Teachers were instructed to teach a lesson to students and then students on their own at home were to review content, supplemented by daily Facebook Messenger posts for parents and the distance learning booklets. This routine varied depending on the hybrid model being adopted at any one particular school.

In addition to the distribution of hard copies of TLMs to teachers and students, staff interviewees confirmed that radio instruction was not considered an effective means of teaching. Instead, project staff reported that mobile messaging applications like Telegram and online platforms like Facebook Messenger and YouTube were proving to be the most effective in the development and distribution of online content to students and families/caregivers. Therefore, these were the mediums that ACR-Cambodia focused on in reaching target participants.

Project staff also noted that providing information in video format allowed some parents/caregivers who were not literate in written Khmer to access learning content and help their children learn. Additionally, Bridge Program students who required access to visual content were provided tablets for learning as well as a small stipend (through families) to pay for phone and internet services. Project staff indicated that only the Bridge Program students received these supports and that students in special schools did not.

While the continued engagement of Bridge Program students in a time of increased risk for school dropout is positive, interviews shed light on the possibility that these learners were provided more explicit and targeted supports during COVID response than learners with disabilities in general education settings. Interview respondents did not touch on support to other students with

disabilities during the pandemic, thus evaluators are unable to assess the extent to which children with disabilities were considered in the COVID response.

With respect to providing content in video format, project staff explained that lessons were filmed at the district level so students would be familiar with the faces of the teachers in the videos and be more motivated to engage in distance learning. Once filmed, these videos were uploaded to Facebook Messenger groups that were set up with families through the support of literacy coaches. Project staff reported that "thousands of videos" have been uploaded, and project reporting confirms that over 155,000 soft copy video materials have been distributed though these online platforms. These videos are meant to support families/caregivers in their use of distance learning booklets. According one quarterly report, lesson content was posted daily for grades preschool–grade 2, weekly videos were posted for preschool and grade 1, twice-weekly assessment worksheets were posted for grades 1 and 2, and weekly stories were posted for preschool–grade 2 to promote "reading for pleasure."

Distributing TLMs and disseminating content to families also posed challenges, as staff reported that many families do not have access to online learning support and many parents have had to take their children with them to work, leaving no time for instruction. For families who do not have access to online learning support and for those families who did not receive distance learning booklets (i.e., 22% preschool and 4% grade 1 in Kampong Thom and 45% preschool and 22% in grade 1 in Kampot), these children stand to lose the most instructional time during the pandemic.

Postponement or Cancellation of Face-to-Face Teacher Training Workshops and Shift to Online Workshops

One COVID-related consequence mentioned by project staff was the postponement or cancellation of teacher training workshops, affecting the third of three scheduled sessions in the 2019–2020 school year. The teachers who did not receive a term 3 training as intended in March 2020 included 40% of school directors in Kampot, 40% of grade 1 teachers in Kampot, and 40% of grade 2 teachers in Kampong Thom. Also, all preschool teachers in Kampot were unable to receive their final (of three) workshop of the year.

Further, project staff mentioned that the shift to online platforms for training presented both challenges and opportunities. While overall, virtual training models are an innovative approach, respondents noted significant limitations in the interactive nature of online trainings compared to face-to-face. KII participants also expressed they experienced challenges in monitoring the knowledge and skill development of participants, and there was limited time to train master trainers and literacy coaches on using videos for training. Technology utilization concerns compound this challenge because of participants' unreliable access to computers, the internet, or stable electricity. These are concerns consistent with other education programs globally that have pivoted their delivery models during the pandemic (United Nations, 2020).

However, these alternative training models also created opportunities in terms of ensuring consistency in delivering training content to teachers and, as one interviewee noted, "revisit[ing] each of the training sessions and think[ing] about how we can highlight some of the inclusive

aspects a bit more." In this case, COVID adjustments allowed for enhancements of what was reported to be a relatively small focus on inclusive education in existing training content. According to participants, these created opportunities for new standardization but risks in that new trainees often lacked experience to deliver supplemental messages.

Communication with Families

Literacy coaches played a large role in ensuring a smooth transition to remote learning during COVID-19 through effective communication with parents. They posted new lesson content on Facebook, conveyed new updates from MoEYS in the Facebook Messenger groups, and made supplemental phone calls to parents who did not have access to internet services. Project staff reported that about 50% of parents could be reached on Facebook, so literacy coaches used the phone as an alternative method of communication.

One project staff member reported that some teachers would go into the community and teach small groups of students who were living in the same household, but such activities varied from place to place. During these lessons, some literacy coaches would observe teachers so they could provide an "abbreviated version" of these small group lessons to other groups of students. In this manner, literacy coaches served as additional points of contact and sources of information for caregivers.

Reallocation of Literacy Coaches

In addition to literacy coaches assisting in communication with families related to distance learning, project staff reported that the role of the literacy coach also shifted to include more direct support to teachers. Early in the pandemic, literacy coaches helped deliver a "condensed version" of the teacher training to individual teachers or small groups of teachers at their respective schools. Later in the pandemic, ACR was allowed to deliver training to groups with no more than 15 teachers in a room. Following the postponement of teacher trainings, the approximately 75 core trainers and the 80 national trainers in each province were required to hold more trainings, and using literacy coaches was one way the project met this need. Project staff reported that as COVID persists, this reallocation of literacy coaches' responsibilities will remain for the foreseeable future.

Reopening of Schools

Project staff reported considerable discussion around reopening schools safely, which derives from national government decisions requiring strict social distancing and hygiene protocols. Typical government schools were likely to open later in the phased approach than international and private schools with comparatively more resources. A small minority of schools in Kampot and Kampong Thom were able to reopen schools to all learners because these schools had small class sizes of 20 learners or fewer. However, most schools had to explore hybrid models with students attending in different shifts on different days of the week to keep class sizes small. Schools with more than 20 students in classrooms divided their students up into either two or three groups, so that each group only attended lessons in shifts for two or three days per week.

As a result of reduced instructional time, instruction has focused only on Khmer and mathematics subjects.

According to project staff, much is unknown about the best way to assess how much knowledge students have lost due to COVID and how to assess student learning moving forward. There has been some guidance from MoEYS about teachers providing students with a monthly assessment to track learning. The plan calls for assessments to be given as in previous years but with adjusted scope and sequence due to the interrupted curriculum in semester 2 last year. MoEYS also has discussed having an 11-month school year to help students catch up on semester 2 content from last year and then proceed as normal from there. It is unclear how ACR-Cambodia will adjust its programming if longer school years or increased testing are implemented.

9. Conclusions and Next Steps

This interim evaluation attempted to answer five evaluation questions broadly focused on process, screening/identification, training, instruction, and consequences. The sections above described each of the interim evaluation findings in detail related to the evaluation questions. Among the strengths and areas of opportunity highlighted for ACR-Cambodia specifically, this report has generated several lessons learned that have the potential to inform the planning, implementation, and monitoring of other programs globally that support inclusive education. The following exhibit summarizes these lessons learned.

Exhibit 22. Lessons Learned for Inclusive Education Activities

Evaluation Question	Lesson Learned
Process	Integrating inclusive principles in EGR programs can be an effective way of leveraging funds to reach a broader student population. However, to meaningfully promote inclusion in larger projects, inclusive principles must be embedded in the original design and all aspects of programming. While adding inclusion to existing projects may lead to less sustained impact than embedding such a focus from the start, it is nonetheless a viable option, but the entire project must be reviewed to find opportunities to cohesively support learners with disabilities.
Process	In many countries, inclusive education is an emerging concept. It is important to allow for ample time to train all staff—not just those focused on inclusion—on the CRPD and other best practices at the beginning of the program and engage international technical expertise to strengthen knowledge.
Process	It is important to have a variety of local and international partners with the appropriate technical expertise and contextual knowledge to support inclusion projects.
Process	Having a strong, communicative relationship with relevant government counterparts can strengthen project implementation and support sustainability.
Process	It is essential that projects produce detailed communication plans at start-up that also map strategies to communicate with parents of children with disabilities.
Process	Projects must embed regular progress checks and monitoring to assess their support to child-centered approaches, ensure they do not inadvertently cause harm, and identify strategies to quickly rectify any potential risk.

Process	All inclusive education projects, integrated or stand-alone, should have specific indicators on inclusive teaching and learning practices within the MEL Plan.[43]
Process	Data on inclusive teaching should be regularly collected and analyzed to assess progress and identify needs.
Process	Projects that have research components should prioritize studies related to inclusive education, given the emerging nature of the field and limited existing evidence base.
Process	Sustainability plans should be a part of proposal and project start-up phases to identify strategies to sustain activities beyond the project lifetime.
Screening and Identification	Projects choosing to implement screening activities must budget for ample project management supports and anticipate the need for adaptive management for changing and emergent conditions.
Screening and Identification	Mapping out all relevant stakeholders in the screening-identification-referral process, including persons with disabilities, DPOs, parents, and medical professionals, can support the implementation of screening initiatives and may help foster sustainability.
Screening and Identification	Projects should provide trainees the opportunity to practice screening with children (or adults if needed) during training to familiarize trainees with the process of school-based screening implementation.
Screening and Identification	Projects should identify explicit opportunities to link screening activities to training on strategies for classroom-based instruction for students with identified disabilities.
Screening and Identification	Projects should research which tools are considered valid and reliable for the age group they are screening and only promote those tools within implementation.
Screening and Identification	Pilots should compare the reliability of screening results when collected from different individuals within the school system, such as school directors or district-level officials. Teachers or other school officials should have adequate oversight to ensure fidelity to implementation.
Screening and Identification	Projects that implement screening activities should review the Screening and Identification feedback loop (Exhibit 12) to identify possible breakages in the feedback loop and mitigation strategies.
Instructional Training	Training on inclusive education should strive to actively engage relevant national stakeholders, including those likely to sustain initiatives after project completion.

[43] Recognizing the challenges inherent in linking MEL indicators to students with disabilities where such populations are not widely identified, proxy indicators can include teachers demonstrating UDL strategies or struggling learners with improved literacy outcomes, for example.

Instructional Training	Training on inclusive education should avoid disability simulations and instead promote the participation of individuals with a lived experience of disability.
Instructional Training	To support the likelihood of implementation in practice, training should avoid the portrayal of inclusion as a standalone subject by explicitly embedding opportunities to discuss and apply inclusive pedagogy throughout sessions. Furthermore, teachers may benefit from training on UDL especially in contexts where systems to identify students with disabilities are fractured. Finally, if teachers receive termly training, inclusion should be featured in each workshop as opposed to only the first.
Instructional Training	Inclusion projects that offer school-based coaching must ensure coaches have the necessary training and resources to support and monitor the application of inclusive teaching in practice.
Instructional Training	As is the case with in-service training, pre-service training curricula should avoid the portrayal of inclusion as a standalone subject by explicitly embedding opportunities to discuss and apply inclusive pedagogy throughout classes.
Instructional Approaches	Scaffolded use of TLMs and diverse supplementary materials has the potential to support literacy development for all learners including those with disabilities.
Instructional Approaches	The use of inclusive teaching strategies should be widespread across teachers' guides of all levels, incorporate UDL approaches, and guide teachers on adapting instructional approaches based on formative student assessments.
Instructional Approaches	Projects should advocate for a scope and sequence that is consistent with evidence-based approaches to early grade literacy development and contextually tailored based on language of instruction and pace of instruction.
Instructional Approaches	Projects producing inclusive TLMs should engage government counterparts and the publishing industry to the maximum extent feasible in order to sustain inclusive methodologies beyond project lifetimes.
Instructional Approaches	Projects should ensure government counterparts with decision-making authority are engaged throughout the materials development processes to facilitate buy-in and negotiation around methodological approaches to inclusive literacy.
Instructional Approaches	Projects should conduct capacity assessments to analyze the greatest areas of need related to inclusive education for ALL children with disabilities, linking any novel interventions to appropriate human resourcing that supports access to education for a wide diversity of learners with disabilities, and not just those with specific types of disabilities.
Instructional Approaches	To the greatest extent possible, projects should avoid creating unsustainable interventions by mapping the long-term trajectory for children newly engaged in accessing education before such children receive project support and by listing any potential risks or consequences of such programming and the potential for achieving the goal of inclusive education.
Instructional Approaches	Projects should ensure adapted EGRA activities receive ample human resource support and time, including contingencies for extra time related to tool development or testing.

Further to the lessons learned generated from this report, many aspects of the project's delivery could not be evaluated by the time of this report because, by the time MCSIE work began, ACR's program implementation was well underway and COVID-19 restrictions were in place. Additional data collection methods (classroom observation; teacher, head teacher, and parent KIIs and focus group discussions; teacher surveys; and household surveys) will be employed in the next steps of this evaluation. Exhibit 22 provides an overview of existing information, organized by evaluation question, and future directions for unanswered questions. Exhibit 23 identifies further secondary source documentation for evaluation in Cambodia. The final section outlines next steps for MCSIE's approach to comparative case studies.

Exhibit 23. Areas of Further Inquiry

Existing Information	Data Collection Method	Evaluation Question(s) Answered	Further Areas of Inquiry
Process			
Implementation sites are typically based on the solicitation. However, for ACR-Cambodia, sites were changed after discussions with GPE, MoEYS, and USAID, causing ACR-Cambodia to have to repeat data collection at the new site.	Project staff, government, USAID KIIs	Process	How and why was Kampot province selected to replace Kratie province as a site for implementation? How and why were specific locations selected for the implementation of ACR and GPE interventions?
Staffing patterns shifted with the integration of inclusive education activities and with staff leaving or taking on new responsibilities.	Project staff KIIs	Process	How did the changes in staffing patterns and shifts of responsibilities impact program implementation (if at all)? Was there a loss of knowledge? How were people supported and trained within their new roles?
ACR-Cambodia established several partnerships with other NGOs working with the area (both local and international) but some have since concluded.	Project staff KIIs, IP KIIs	Process	What were the reasons for the conclusion of some project partnerships? Has there been any impact on these changing partnerships in project implementation?
ACR-Cambodia has been supporting MoEYS to develop a costing model for continued funding to these activities.	Government KIIs	Process	How has the costing model been understood and utilized by MoEYS stakeholders? What potential might this costing model hold for sustaining inclusive teaching and learning activities?

Identification			
ACR-Cambodia selected two screening strategies (for hearing and vision) and found that it was difficult to get reliable data across classrooms.	Project staff KIIs	Identification Process (Sustainability)	How did ACR's project designers envision screening would link to other parts of the project (if at all)? With all the efforts related to screening, where does the project envision these activities going next?
In response to the limited success associated with teacher-led screening activities, ACR-Cambodia piloted four alternative approaches to screening.	Project staff KIIs	Identification Process (Sustainability)	Which of these four screening approaches will be continued (e.g., referral service phone number, work with health centers, etc.)?
Training & Coaching			
ACR-Cambodia's approach to gradual skill development for in-service teacher training, including a very limited inclusion component, may have impacted teachers' understanding and enactment of inclusive education in practice.	Teacher KIIs, project staff KIIs, classroom observation, comparative case study	Training, Instruction, Unintended Consequences	Has this simple, targeted approach to teacher training led to potentially sustainable change in teachers? Have teachers' understandings and enactments of inclusion progressed as compared to those teachers who did not access the project?
Training participants were provided an inclusive education checklist, but it is unclear how embedded this checklist was into ongoing monitoring and professional development activities.	Project staff KIIs, literacy coach coordinator KIIs	Training	What was the rationale for the limited reference to this checklist in trainings? To what extent did the literacy coaches utilize the inclusive education checklist with teachers in their visits?
Coaching visits likely helped teachers implement newly acquired literacy and inclusive education methods. Coaches were not yet interviewed as a part of the initial data collection.	Literacy coach KIIs, project staff KIIs	Training, Instruction, Process	What is the experience of literacy coaches in supporting teachers to implement inclusive practices in schools? What inclusive strategies are coaches themselves most adept in supporting teachers to utilize? What inclusive strategies do coaches feel teachers are more or less adept in utilizing?
There was limited information on the role of the inclusive education field team with respect to coaching, and there	Literacy coach KIIs, project staff KIIs	Training, Process	What role did the inclusive education field team play with respect to supporting teacher implementation of newly

were challenges in coordinating inclusive education field team and literacy coach visits and feedback sessions.			learned inclusive education methods? In practice, how strong was the coordination between literacy coaches and the inclusive education field team on issues of inclusion?
Training venues in target provinces are overwhelmingly inaccessible for persons with physical disabilities, a challenge not unique to ACR-Cambodia activities.	Teacher KIIs	Training	Are there any teachers with physical disabilities in any participating project schools? If so, has their participation in training been impacted by the accessibility of public facilities?
Producing inclusive TLMs for pre-service training was identified as a sustainability strategy post-ACR programming and as a possible mechanism for scaling up project impact.	Project staff KIIs,	Training, Process	What is the status of pre-service curricular changes? What opportunities might exist to further embed principles of inclusion into ongoing curriculum development?
Instruction			
ACR-Cambodia adapted and tested TLMs for learners with disabilities, including large print and easy read versions.	Teacher KIIs, classroom observation	Instruction	How widely used are these materials in the schools in the ACR province and in the special schools? How comfortable are teachers in incorporating these materials into their instructional routines?
KIIs have revealed that TLM developers have considered support to struggling learners and those with disabilities throughout the instructional design.	Teacher KIIs, classroom observation, coach KIIs, household surveys, comparative case study	Instruction	Has the use of the ACR package helped to increase learner engagement and achievement in participating schools and, if so, to what extent? How strong is learner engagement as compared to those children in schools who did not access the project?
Some interviewees expressed concerns about teachers' capacity to sustain inclusive instructional methods following project completion.	Teacher KIIs	Instruction	Which materials and resources do teachers feel most support their teaching practice? Which approaches or resources do teachers feel they can sustain without post-project support?
Instruction—EGRA			
ACR-Cambodia adapted EGRAs for CSL and braille and	Project staff KIIs	Instruction	Are there plans to further refine, test, or administer the

tested these EGRAs with small samples of students.			adapted EGRAs? If so, what is planned?
Instruction—Bridge Program			
ACR-Cambodia developed TLMs and an adapted preschool curriculum for CSL for the Bridge Program.	Project staff KIIs	Instruction	How widely are these resources used in the Bridge Program and how is use measured?
KII have suggested that adaptations made to the CSL preschool curriculum could also benefit typical preschool learners in mainstream schools.	Project staff KIIs	Instruction, Process (Sustainability)	Are there plans to utilize the adapted materials and knowledge gained in the process to benefit inclusive literacy instruction in mainstream schools? If so, what is planned?
KIIs have identified concerns about the 13 Bridge students' future transition to integrated classrooms at schools where qualified teachers and appropriate support are not readily available.	Project staff KIIs, household surveys	Instruction, Process (Sustainability)	What will happen to the Bridge Program when the ACR project concludes? What options do Bridge students have (if any)? What role does ACR-Cambodia play (if any) in supporting Bridge students with the next steps in their education?
Instruction—Special Schools			
Adapted TLMs and teaching methods were tested in Siem Reap's school before rolling out to the remaining four special schools and mainstream schools in the ACR provinces and beyond.	Project staff KIIs, teacher KIIs	Instruction, Process	What lessons did ACR-Cambodia project staff learn in this process? Can the use of these project resources help link special schools to inclusive education systems and if so, how?
Unintended Consequences			
ACR-Cambodia has made many programming adaptations in response to the pandemic (e.g., distributing TLMs, online content, using literacy coaches for training, supporting a return to hybrid instruction, etc.).	Project staff KIIs, household interviews	Unintended Consequences	What impact (if any) have these adaptations and modifications had 1) on teachers in terms of supporting them in instructing diverse learners including students with disabilities, and 2) on

			students with disabilities and their families?
ACR-Cambodia assigned literacy coaches new responsibilities during the COVID-related school closures.	Project staff KIIs, coach KIIs	Unintended Consequences	What lessons have been learned from these innovative adaptations that could support teacher inclusive practice during and after the pandemic?

In addition to the above data collection questions that may be addressed in next steps of this evaluation, IDP also intends to review further secondary source documents during this formative evaluation period. Exhibit 23 provides an overview of additional data sources that may be used to answer evaluation questions.

Exhibit 24. Secondary Sources for Future Analysis

Evaluation Question	Sources
Process	Work plans and program descriptions that may have changed due to COVID
	Observation forms used by literacy coaches in classrooms
	Data collected by literacy coaches using observation forms
Screening and Identification	Screening data
Training	Bridge Program materials
	Observation forms used by literacy coaches in classrooms
	Data collected by literacy coaches using observation forms
	Literacy coach manual
	Teacher training workshop materials: preschool through grade 2
Instruction	Students TLMs (student supplementary books, sensory stories, pattern books, books on video with audio and CSL, flashcards, etc.)
	Distance learning booklets and other TLMs adapted due to COVID
	Bridge Program materials
	Observation forms used by literacy coaches in classrooms
	Data collected by literacy coaches using observation forms
Unintended Consequences	Distance learning booklets and other TLMs adapted due to COVID
	Work plans and program descriptions that may have changed due to COVID

9.1 Next Steps for Data Collection: Comparative Case Study

The purpose of this section is to outline preliminary comparative case study (CCS) topics for MCSIE Cambodia based on information yielded in this report. IDP has adopted CCS as a methodology to capture the nuance and differences in and between the three MCSIE countries. This approach has been pioneered by Barlett and Vavrus (2016), whose research in international educational development contexts has featured a CCS approach. CCS advocates for tracing a case across a system, including among individuals, groups, or sites. This includes tracing this phenomenon across three axes: horizontal (comparing how similar policies/programs unfold in

distinct locations that are socially produced), vertical (comparing across hierarchies of leadership), and transversal (comparing processes over time—both historically and within programs). For example, with MCSIE, the core "case" of study is the initiatives that support EGR for children with disabilities; while activities in each country all serve this common purpose, their activities address inclusion in different ways and thus deep dives should be measured with a case-study approach.

A CCS approach offers several advantages to the MCSIE design. For one, a CCS approach adopts a *process orientation* to understand how actors and events influence one another and play a role in causing change. Given USAID missions' explicit request to reflect the ways in which each country *progressively realizes* its goals of inclusive literacy instruction for children with disabilities, a CCS approach lends itself to capturing such changes over time through the transversal component. The CCS approach also helps to shed light on the ways in which human and non-human actors are deeply connected at different levels of the system. To support the messaging that MCSIE is not a "pass/fail" evaluation, a CCS approach would help to unpack the reasons if and why USAID-funded projects have encountered enablers and constraints in achieving desired goals.

IDP's interim evaluation report has yielded several topics to be explored in more detail using the CCS approach. Preliminary case study topics include:

1. **Inclusive instruction:** To examine inclusive education pedagogies in greater detail, IDP proposes extending classrooms observations to include a control group sample (i.e., classrooms that have not been included in ACR-Cambodia activities) for comparative purposes. Additional observations and interviews beyond those already planned will be considered for a small sample to glean rich data. This data will allow IDP to assess differences in inclusive practices implemented in the classroom between treatment and control.

2. **Success stories:** To examine both the enablers and barriers to enacting inclusion at the school-level, IDP would like to conduct more detailed interviews at the school-level. As Cambodia works to expand the reach of its inclusive education initiatives, more evidence about what factors support the engagement of learners with disabilities—or inhibit such engagement—will be valuable in supporting future programming. Specifically, this case study would aim to focus on "success stories" of instances where inclusion has functioned as intended in order to learn what has helped that be the case.

3. **Screening:** ACR-Cambodia has conducted multiple activities to screen children for disabilities and much is still unknown. CCS will examine systemic barriers and enablers for effectively screening children. This will include a deeper dive into the systemic constraints beyond the school-level that make the screening-feedback loop challenging to close; this includes limited resourcing within the health sector. This is of particular importance for cross-country comparison.

4. **"Hidden" disabilities:** MCSIE countries primarily focus on students with disabilities that can be visually recognized, such as learners who are deaf, blind, or have a physical disability. Much less attention is afforded in government policy or in donor-funded programming to disabilities that cannot be visually recognized, such as students with learning or intellectual disability. IDP will use a CCS approach to gain a greater understanding of how Cambodia identifies and educates struggling learners.

Based on feedback and discussion, IDP will outline the CCS methodology in greater detail along with a timeline for implementation.

Annexes

Annex A. Process Rubrics

The Process Checklist examines the technical aspects of the implementation of the ACR-Cambodia program that fall under the process evaluation question, specifically the extent to which the program "set up [or is setting up] an efficient, effective, and sustainable system to focus on improving the quality of education for learners with disabilities." The Process Checklist comprises eight domains, each with a set of evaluative criteria. As source materials for this review, IDP staff used all data collection points, which included an IP survey, secondary source materials (annual work plans, monitoring and evaluation plans, quarterly and annual reports, and organizational charts), and KIIs. The Process Checklist does not address how the COVID-19 pandemic impacted the ACR-Cambodia program as this is addressed in greater detail in the COVID-19 section of this report. IDP researchers completed the checklist using the scale below and the process described in the Process section above.

Exhibit 25. The Process Checklist

Scale	Justification
2	IP provides evidence that aligns with the criterion outlined in the evaluation domain.
1	IP provides evidence that aligns with some of the evaluation domain criteria but not in all evaluation areas.
0	IP does not provide evidence that aligns with the criterion outlined in the evaluation domain.
N/A	(Not applicable): Insufficient evidence was available to evaluate the domain.

Project Start-Up

Exhibit 26. Project Start-Up Evaluation

Evaluation Criteria	Rating
IP completed project start-up activities according to initial work plan.	N/A
IP completed specific requirements of the government (i.e., IRB) without delay.	1
IP has a plan to address gender and social inclusion (such as the intersectionality of other marginalizing factors such as ethnicity, language, etc.) of intended beneficiaries.	1

Project start-up examines the timely implementation and completion of start-up activities, supporting gender and inclusion plans, and the adherence to specific Cambodian government requirements. The purpose was to evaluate how these activities influence project start-up and, if any delays occurred, why and what the impact was on ACR-Cambodia's ability to initiate programming.

During the project start-up, RTI (the prime awardee) experienced delays with the general ACR-Cambodia program before adding inclusive education activities, primarily due to the length of time required to obtain official registration as an NGO in country. This included a substantial impact on hiring national staff in a manner consistent with local labor law, and other challenges discussed

below. RTI also experienced delays in establishing subcontracts for project partners. As a result, RTI used non-USAID funds to cover the partners' cost to join activities during Q1 of the FY18.

ACR-Cambodia amended its work plan (FY18 Q3) to add inclusive education tasks to the existing project scope due to additional funding from All Children Learning. Since project start-up activities occurred prior to inclusive education tasks being integrated into the ACR-Cambodia program, the inclusive education tasks were not impacted by original project start-up. However, the addition of the inclusive education tasks required the program to make staffing adjustments and hire additional employees; these changes are discussed in detail under staffing.

Furthermore, the addition of inclusive education tasks required ACR-Cambodia to take time to engage in discussions and coordinate with additional stakeholders, such as GPE and UNESCO. Towards this goal, ACR-Cambodia developed several iterations of implementation plans and corresponding budgets during the start-up phase for inclusive education tasks and shared them with stakeholders.[44] At that time, a decision was made to shift from grades 1–3 to preschool–grade 2 and to move program activities from Siem Reap to Kampong Thom to align and avoid redundancy with other stakeholder activities. Due to this shift in location, ACR-Cambodia had to repeat initial data collection in Kampong Thom at start-up.

Staffing

Exhibit 27. Staffing Evaluation

Evaluation Criteria	Rating
IP staff have experience within the country of programming.	N/A
IP staff have experience with inclusive education programming.	1
IP staff have experience with or have developed partnerships with stakeholders who have experience with evidence-based EGR/EGL.	2
IP experienced low staff turnover.	1
IP hired staff according to the planned timeline.	1

This section examines ACR-Cambodia's approach to project staffing, including staff recruitment, hiring, onboarding, supervision, ongoing staff training and development as well as staffing patterns. Staff recruitment in particular focused on the project's ability to hire staff with experience working either on EGR and/or inclusive education in Cambodia. For this section, IDP considered quarterly and annual project reports and documentation supplemented by a Survey of Implementing Partners[45] (IP survey) and KIIs conducted as part of this evaluation.

Throughout program implementation, ACR-Cambodia experienced hiring delays due, in part, to the unexpected time it took RTI to register as an NGO in Cambodia. The registration process was an external factor which limited the program's ability to hire multiple permanent positions, and RTI

[44] Additional KIIs have indicated that delays in GPE's start-up process impacted ACR-Cambodia.

[45] A total of 11 participants completed the IP survey, including 10 RTI staff and one staff member from World Education; thus, it was not a representative sample of program staff.

had to respond creatively to solve this problem. One permanent position impacted was that of an operations manager, whose responsibilities would include procurement and contract management. As the scope of ACR-Cambodia grew in FY18, the need for a dedicated staff member to handle these duties became essential. ACR-Cambodia was required to use short-term technical assistance from RTI's home office for two quarters of FY18 and then transfer that work to a new staff member once registration was complete, impacting continuity of work being undertaken at the time. To avoid further hiring delays during the project start-up, ACR-Cambodia hired individuals as consultants and transitioned them to employees once RTI obtained NGO registration.

ACR-Cambodia also experienced hiring challenges related to the inclusive education field team due to a limited pool of candidates with the necessary technical expertise to fill the roles. In Q2 of FY18, the former collaboration and coordination advisor for ACR-Cambodia was shifted into the role of inclusive education advisor due to his previous experience working in inclusive education. Because of the expanded scope of inclusive education tasks, ACR-Cambodia also hired a consultant with experience in EGR programs to serve as a second inclusive education advisor. At that time, the project began to actively recruit for the inclusive education field team which included one inclusive education team lead, two inclusive education officers, one inclusive education technical advisor, and one deaf education specialist. The inclusive education team lead and one inclusive education officer were hired in Q2 of FY18. The second inclusive education officer was hired during Q3 of FY18, and the inclusive education technical advisor and deaf education specialist were hired in Q4 of FY18 and began in FY19. Based on secondary documentation review, delays in hiring inclusive education field staff, particularly the deaf education specialist, impacted ACR-Cambodia's timeline for implementation of inclusive education program activities, such as its ability to pilot screening tools and adapted assessments as reported in the FY18 Q3 report.

While ACR-Cambodia has experienced challenges related to hiring, they have also found ways to meet program needs by shifting staff members as responsibilities have changed or roles have become vacant. In addition to the above-mentioned staff changes, the former chief of party originally served as the lead technical advisor prior to assuming her later role. In September 2020, this chief of party stepped down, and an existing operations staff member stepped in as interim chief of party until an external candidate could be hired.

It is widely known that RTI, as an organization, has extensive experience implementing or partnering with other organizations to implement evidence-based EGR programs. To gather information specific to the ACR-Cambodia program, IDP conducted an IP survey and KIIs with project staff. The IP survey was shared with project staff who have a greater than 15% level of effort dedicated to the implementation of inclusive education in the program. All but one of these 11 respondents were RTI staff, including those hired on a contract basis. Survey results indicate ACR-Cambodia staff experience implementing inclusive education programming is varied. Four respondents (36%) reported no prior experience working on inclusive education before their ACR-Cambodia involvement, one respondent had less than one year of experience (9%), two respondents reported one-to-two years of experience (18%), two respondents reported five-to-six

years of experience (18%), and the final two had more than six years of experience (18%). IDP's IP survey did not directly ask respondents about their previous in-country experience in EGR programming; however, KIIs with IP and program staff revealed that many had gained EGR experience not only in Cambodia but also in other countries in the region.

Location

Exhibit 28. Location Evaluation

Evaluation Criteria	Rating
IP clearly states how project locations were selected.	1
Project locations are representative of the population.	N/A
Project locations align with geographical scope and goals of project.	1
Project locations allow for interaction with key stakeholders.	2

This section examines selected locations for program implementation and workspaces for program staff. These locations were reviewed to determine if they align with the program's geographical scope and goals and if they allowed for interactions with key stakeholders.

The USAID solicitation prescribed that ACR-Cambodia would initially implement the program in Kampong Thom and expand to one of three provinces (Kratie, Stung Treng, or Preah Vihear) in subsequent school years. The solicitation also required ACR-Cambodia to support the five national special schools in their various locations. ACR-Cambodia locations for implementation ended up being these five special schools, along with the provinces of Kampong Thom and Kampot. As Kampot was not one of the prescribed locations for implementation, it is unclear from reporting alone how or why the location of Kampot was selected. ACR-Cambodia's 2019 Q1 report states that Kampot's activities were previously planned to occur in the province of Kratie, which was one of the suggested locations. Based on ACR-Cambodia's reporting, it appears that the shift in location was partially due to no longer including grade 3 students in data collection, as well as the involvement of UNESCO's StepCAM program in Kratie. Furthermore, during IDP's inception visit to Cambodia, government staff suggested that the provincial locations for implementation were selected because they had the lowest primary completion rates and that the United States Department of Agriculture (USDA) was also supporting school feeding programs in Kampong Thom. Although there were shifts away from the solicitation's original geographical scope, the change in the second province location for program implementation does not appear to have impacted the project's overall purpose and intended activities.

The selection of workspaces for program staff appears to allow for interactions with key stakeholders. ACR-Cambodia program staff have workspaces within Kampong Thom and Kampot, where education programming is being implemented, and the inclusive education technical officer is based in Phnom Penh while the inclusive education field team is all based in Kampong Thom. ACR-Cambodia program staff have dedicated workspace within local MoEYS offices, which allows for frequent interaction with government stakeholders. Furthermore, in Phnom Penh, ACR-Cambodia uses space from Open Institute, one of the partner organizations, for its national project headquarters.

Program Implementation

Exhibit 29. Program Implementation Evaluation

Evaluation Criteria	Rating
IP provided annual workplans that align the program description activities and provide description for any variance between activities documented.	1
IP is completing or has completed tasks outlined in original solicitation.	2
IP was asked to or requested to complete new tasks not outlined in original solicitation.	N/A
IP met or is on track to meet established timelines for completing activities required under their award.	1
IP provided reason for any delay in activity completion in reports.	1
Additional activities completed outside contracted scope of work positively impacted project tasks.	2
Additional activities completed outside contracted scope of work did not negatively impact timely completion of project tasks.	N/A

This section examines how ACR-Cambodia's annual work plans and planning documentation align with the USAID solicitation and any tasks completed outside the scope of contracted work and program implementation timelines.

All annual reports and work plans submitted by ACR-Cambodia to USAID follow the same format of listing activities to be completed and sub-results. It is unclear from the documentation review if ACR-Cambodia completed additional activities (non-COVID related) outside the scope of work. What, if any, impact activities outside the scope of work had on program implementation is unknown. Evaluation of implementation through project reports revealed some inconsistencies between FY18 and FY19 activities. For example, ACR-Cambodia's FY18 reporting includes significantly more sub-results than FY19 reporting, and it appears that the scope of some inclusive education activities was shifted and redefined from year to year. This could have occurred naturally due to the addition of inclusive education activities after the initial ACR program began and subsequent revisions of project workplans. It is also important to note that when inclusive education is embedded into larger programs it can be difficult to track inclusion-specific activities in reporting documents.

An example of a sub-result undergoing a significant rescoping and alignment under a different result altogether is FY18's result 3, sub-result 3.2 which states, "Conduct communication campaign to raise awareness and change attitudes regarding education for children with disabilities (IE)." This sub-result does not appear in FY19 or FY20 reporting but could fall under FY19 and FY20's result 2, sub-result 2.3, which states, "Increased engagement with parents and caregivers, community members, and the private sector to promote inclusive education." It is unclear why these changes occurred, and IDP will seek further clarification in future stakeholder interviews. The change between fiscal years in how inclusive education activities are framed makes it difficult to follow whether all inclusive education tasks requested in the ACR-Cambodia

solicitation are being completed due to their integration into the larger initial project undertaken by RTI.

Throughout reporting, the ACR-Cambodia program frequently documents shifts at both program and activity levels that have occurred throughout the project cycle, including changes in locations for EGR interventions, changes in screening and identification methods, and work undertaken with specific disability groups (such as children with visual and hearing disabilities) to help the program develop effective tools and practices for its intervention. Beyond these shifts, ACR-Cambodia also experienced implementation delays. As previously discussed in other sections, these delays have occurred due to RTI's difficulty registering as an NGO in Cambodia, hiring project staff and executing subcontracting agreements, and engaging and discussing with MoEYS and other stakeholders for a prolonged period regarding program locations and materials development. The aforementioned delays are directly related to project start-up and implementation design. However, ACR-Cambodia also experienced activity-specific delays in piloting screening tools and the EGRA due to capacity and resource needs. These specific activities are evaluated in their corresponding rubrics (Screening and Identification and EGRA); however, further investigation would be required to understand the impact of these delays on programming.

Partnerships

Exhibit 30. Partnership Evaluation

Evaluation Criteria	Rating
IP established working partnerships with government entities that align with scope of project.	2
IP has established relationships with national and local DPOs.	1
IP established relationships with organizations working on evidence-based EGR projects.	2
IP established relationships with organizations working on inclusive education.	2
IP clearly state who its partners are in planning documents.	1
IP established MOU/MOAs for partnerships that clearly list responsibilities of both parties.	N/A

While formal partnerships constitute a part of project start-up, partnerships are also integral to the success of program implementation and sustainability. This section examines ACR-Cambodia's formal and informal partnerships with government entities, DPOs, and other organizations working on inclusive education or EGR programs in Cambodia. MCSIE also examined partner roles and responsibilities and any changes made to partner roles during the project. Under the solicitation, ACR-Cambodia is required to engage in partnerships with the Cambodian government and the five special schools (now under government oversight through SED and NISE). ACR-Cambodia clearly lists current partners in each report and explains why they partner with that entity. However, it is unclear from reporting alone why some partnerships ended and how responsibilities changed over time. For example, Open Institute is listed as a subcontractor with a broad scope of work in the 2017–2018 Annual Report, but there is no written explanation as to why this role is not reported in the 2018–2019 Annual Report. The reason Open Institute

was not listed as a partner in later reporting will be further explored in additional stakeholder interviews.

From the program's inception, ACR-Cambodia has worked closely with the government, including establishing a presence in local offices with MoEYS. Having workspace within MoEYS allows for the ACR-Cambodia program staff to partner closely with ministry officials and provide ongoing support and capacity-building. While ACR-Cambodia program staff and officials from MoEYS are able to closely interact and partner because of their shared space, the process for determining the specific roles and responsibilities of each party is unclear from reporting alone. However, subsequent interviews with ACR-Cambodia program staff reveal that government approval of programmatic decisions and materials development are critical for educators' buy-in when implementing activities. Generally, ACR-Cambodia program staff led the development of first drafts of program materials such as TLMs in close collaboration with government partners, with a further phase of feedback and review by ministry officials. Upon receiving input from ministry officials, ACR-Cambodia program staff edit materials or restructure activities before seeking final ministry approval and subsequent implementation of activities. This technical working group for EGR, which includes members from various departments within the ministry,[46] helps facilitate the close working relationship between ACR-Cambodia program staff and MoEYS.

ACR-Cambodia's partnerships strongly support the development of TLMs and teacher training with other organizations as well. At the onset of ACR-Cambodia, program staff met with several NGOs working on EGR to establish partnerships for various aspects of the program and issued sub-awards to them for specific scopes of work. These partnerships included those with World Education, Room to Read, World Vision, Save the Children, KAPE, and Open Institute, each with specific assigned tasks related to curriculum and materials development or teacher training. ACR-Cambodia also established formal partnerships with organizations specifically to address inclusive education tasks. The partners and their respective scopes of work are as follows: Save the Children (inclusive education tips and disability screening), World Vision (inclusive education tips and vision screening), Hope Cambodia (hearing screening), All Ears Cambodia (hearing screening), and Krousar Thmey (TLM and curriculum development and adaptation). The ACR-Cambodia staff and partner organizations established a charter to formalize their collaboration in August 2017. When the charter was established, it was also determined that these groups would meet every two months to enhance coordination and collaboration among each other. The group also provides updates to the National Educational Partnership so information on efforts undertaken can be disseminated to a larger audience of organizations working in Cambodia. In addition, the ACR-Cambodia program has established a project Facebook page, a community of practice group on Facebook, and a corresponding community of practice newsletter where partners can share updates with one another. These efforts are supported by the partner organizations and members of MoEYS and aid in creating a system for ongoing collaboration and coordination as well as capacity-building.

[46] Ministry departments in the technical working group for EGR include ECED, the Education Quality Assurance Department, POE, SED, and the Teacher Training Department.

Krousar Thmey was one of the organizations initially contracted to support the "development of curriculum, TLMs, teacher professional development materials for preschool and grades 1–3 (in particular for children with disabilities and inclusive education)" (Quarterly Report Q3 FY17, p. 10). In Q2 of FY19, Krousar Thmey decided against taking on another subcontract with ACR-Cambodia due in part because much of their staff was transitioning to the ministry's National Institute for Special Education (NISE).[47] This partnership shift had programmatic implications and resulted in ACR-Cambodia deciding to postpone plans to adapt its curriculum for students who are deaf. Instead, ACR-Cambodia planned to observe classes in Siem Reap to more fully understand the current approach and whether any links could be made with the new MoEYS package.

Regarding partnerships with DPOs, ACR-Cambodia broadly suggested working with them in its initial work plan. DPOs were consulted and involved in the situational analysis validation workshop, but beyond that point in time, efforts to collaborate with DPOs as official resource organizations or partners were not explicitly documented. As the document review does not describe any formal or informal engagement with DPOs, this may represent a missed opportunity to meaningfully engage this core stakeholder group in the promotion of inclusive EGR.

In August 2019, ACR-Cambodia established a *Public-Private Partnership Plan* (PPP Plan) to support the work already being undertaken. The PPP Plan's objective is to identify potential private sector actors and resources that could support ACR-Cambodia and engage these actors in the MoEYS plan to scale its national early grade learning program. ACR-Cambodia seeks to develop private partnerships for activities specifically under the purview of the program to help navigate any apprehension private sector actors may have related to partnering with the government. In the PPP Plan, ACR-Cambodia identifies three categories where support can occur to better engage private sector actors including 1) advocacy for inclusive education in early primary school, 2) resource mobilization, and 3) increased access to EGR materials for stakeholders. Despite a clear goal for inclusive education advocacy, the PPP Plan does not identify any partners specific to inclusive education, instead taking a broader approach in identifying potential partners to help promote general education, Khmer literacy, digital content creation, hosting and distribution, and government motivation. ACR-Cambodia has experienced success with private partnerships, including private schools located outside provinces where ACR-Cambodia is being implemented, which have adopted the reading program's approach and materials for their schools, and a nonprofit private partner that agreed to help pay for the cost of printing materials for the entire province of Kampong Thom during the 2019–2020 school year.

[47] Subsequent KIIs indicated that disagreements about a technical approach to deaf education were a core reason for the change in partnership.

Communication

Exhibit 31. Communication Evaluation

Evaluation Criteria	Rating
IP has one or more documents that establish communication and/or outreach expectations and timelines with project stakeholders.	1
IP clearly communicates changes to staffing, activities, and timelines in reports.	1
IP engages in timely and effective communication with stakeholders.	2

This section examines ACR-Cambodia's communication plans and communications with stakeholders. In annual work plans, the program states they will communicate with USAID and MoEYS and regularly report on meetings and workshops conducted in collaboration with these key stakeholders. Work plans and reporting also serve to communicate changes in program design, implementation timelines, and staffing patterns but do not often include the reason behind these shifts. For example, the inclusive education advisor's departure is reported, but the report does not specify why the advisor left or how their leaving impacted program activities. The "why" behind these shifts would be useful for evaluative purposes to understand the broader impact on program implementation and will be further explored in additional stakeholder interviews.

To communicate with NGO partners, ACR-Cambodia engages in regular discussions with individual partners and holds a bi-monthly meeting with all partners. The bi-monthly meeting is used to discuss activities both directly and indirectly related to the ACR-Cambodia program. It serves as a space to synthesize information between the different stakeholders and to promote a more comprehensive, holistic approach to early grade learning and inclusive education program implementation within the country. As previously mentioned, information from these meetings is then shared with the National Education Partnership so it can be disseminated to the broader NGO and local stakeholder community working within Cambodia. Communication between ACR-Cambodia and program partners is further enhanced by the publication of its quarterly community-of-practice newsletter, which provides program updates, resources, and information in a synthesized format for program stakeholders. The community of practice newsletter regularly includes topics related to disability-inclusive education, a promising sign that issues of inclusion are being shared in a relevant stakeholder community.

Beyond communication with government, USAID, and partner stakeholders, ACR-Cambodia has a *Communications and Outreach Strategy*, which stipulates the specific objectives, strategies, and approaches deployed to mobilize and engage various stakeholders to support inclusive education, including communities and parents. The strategy includes promoting the inclusive early grade Khmer package more broadly, along with disability-specific messaging. ACR-Cambodia also has an *Inclusive Education Community Mobilization Strategy* that describes the work done to mobilize the schools and communities to support inclusive education to date, including the work on disability screening and with volunteers teaching sign language to out-of-school deaf children in the two pilot districts in Kampong Thom (the Bridge Program). This strategy also outlines how the project intended to move forward, although the document was developed prior to COVID. This

document is reviewed further in the Sustainability section as it centers around capacity-building and raising awareness among stakeholders.

A unique communication approach that the ACR-Cambodia program has employed is a project Facebook page. ACR-Cambodia elected to use Facebook as a platform to communicate with stakeholders based on a previous study undertaken in Cambodia which identified Facebook as the most commonly used social media platform in the country. The project's Facebook page is administered by members of MoEYS and ACR-Cambodia and is used as an information sharing platform between ACR-Cambodia NGO partners and to provide resources to caregivers and students. Resources include digital storybooks, images with text, videos including CSL, reading and writing activities, and information on virtual programming during the Covid-19 pandemic. Additionally, the project Facebook page includes programmatic updates and images from the ACR-Cambodia program implementation and awareness-raising posts on inclusive education and disabilities. ACR-Cambodia program staff also utilize Facebook group messaging to connect directly with caregivers about literacy activities and to provide technical support. This innovative approach to using social media to connect with a broader audience and share resources—including resources related to disability inclusion—is a strength of the ACR-Cambodia program and adds to publicly available resources for stakeholders.

Program Monitoring and Information Sharing

Exhibit 32. Program Monitoring[48] and Information Sharing Evaluation

Evaluation Criteria	Rating
IP has established procedures on how to share information with relevant stakeholders.	1
IP secures data and information in accordance with standards outlined in their award.	2
IP shares data and information in accordance with standards outlined within their award.	2

This section examines how ACR-Cambodia established procedures to store and share data with stakeholders safely and securely. Per the USAID solicitation, ACR-Cambodia is required to upload all datasets to USAID's Development Experience Clearinghouse (DEC) platform. Additionally, as part of the MEL Plan, ACR-Cambodia established a Data Quality and Assurance Plan. Within the Data Quality and Assurance Plan, ACR-Cambodia addresses data collection, security, privacy, and access control. Electronic data is uploaded to a secure server, then verified and cleaned by program staff in RTI's home office. Through KIIs, program staff also confirmed locked cabinets within the office space to store hard copy data securely. Only designated staff members had keys to access the locked cabinet. ACR-Cambodia's processes for sharing information and securing data is an organizational strength, and its plan appears to go beyond the solicitation's basic requirements.

[48] Monitoring and evaluation are essential components of the program-life-cycle and a detailed analysis of the ACR-Cambodia's MEL Plan is provided in Annex B of this report.

Exhibit 33. Sustainability Evaluation

Evaluation Criteria	Rating
IP has a plan that addresses the sustainability of the project beyond the funding cycle.	N/A
IP completes activities to assist in building the capacity of local and national government officials.	2
IP completes activities to assist in building the capacity of local and national DPOs and universities (if applicable).	0
IP completes activities to assist in building the capacity of local educators.	2
IP completes activities to assist in building the capacity of families and community members.	2

This section examines ACR-Cambodia's work towards sustainability beyond the funding cycle and stakeholder capacity-building. The solicitation for ACR-Cambodia emphasized the sustainability of program activities to ensure its lasting integration into Cambodia's education system through engagement with local NGO and private sector stakeholders and the Cambodian government. Although the ACR-Cambodia program does not have a sustainability plan, the PPP Plan discussed in the partnerships domain outlines how the program will directly enlist the private sector to support and expand current work done by the program. The plan also states that ACR-Cambodia will engage the private sector in future development, operationalizing, and scaling efforts for the national early grade learning program undertaken by MoEYS, which will contribute to sustainability and capacity-building of local stakeholders. ACR-Cambodia is also working towards creating sustainable systems through their close working relationships with NGOs and capacity-building of MoEYS officials and local educators, including on issues related to disability-inclusive education.

Furthermore, activities undertaken by ACR-Cambodia indirectly imply their commitment to program sustainability beyond the funding cycle of ACR-Cambodia. This includes regular emphasis in project reports of the capacity-building of government officials, teachers, and community and family members. The ACR-Cambodia program has developed an *Inclusive Education Community Mobilization Strategy* to promote greater understanding of what is required to create inclusive education systems in Cambodia. This strategy targets raising the awareness of MoEYS leadership, NGOs, and the broader Cambodian community on how to overcome the complex challenges in providing inclusive pre-primary and primary education through partnerships, training, and capacity-building activities throughout the project that will promote sustainable changes for inclusive education. Sample activities within this strategy include mobilizing and providing tips to families and educators on the use of assistive devices, informing families of the necessary follow-up medical appointments for assistive devices, encouraging family members and educators to learn CSL, and raising stakeholder groups' capacity, awareness, and understanding of the needs of children with disabilities.

Throughout the *Inclusive Education Community Mobilization Strategy*, there is mention of engaging DPOs to consult with, support, or disseminate information on ACR-Cambodia program

activities; however, DPOs are not mentioned in the project's sub-immediate results focused on capacity-building, which is likely a missed opportunity.

An area of strength related to capacity-building and sustainability for ACR-Cambodia is the work that has been done in close collaboration with government officials and educators. As discussed above, ACR-Cambodia program staff have worked closely with MoEYS officials on the development and approval of TLMs, in-service and pre-service teacher training, and school-based professional development. The in-service and pre-service teacher training activities undertaken by ACR-Cambodia with the support of MoEYS have been used to build local educators' capacity in Cambodia. ACR-Cambodia, in conjunction with sub-awardee Room to Read, is developing a pre-service training course and curriculum for Khmer literacy. Based on documentation review to date, ACR-Cambodia has completed pre-service training and curriculum content for grade 1, and work is ongoing to complete grade 2 and preschool curriculum and training modules. The pre-service curriculum and training content are based on input from the Teacher Training Department, teacher education colleges, NGO staff, and feedback from educators and MoEYS. The pre-service curriculum and training modules have been delivered to students currently in the teacher education colleges and if they continue to be utilized, will add to the sustainability of the teaching methods and approach used in Cambodia. Additionally, the pre-service curriculum is supported by supplemental teachers' guides also used for ACR's in-service training, which provide tips on inclusive classroom instruction and adjusting support for different learning needs. Training on the supplemental teachers' guides is provided to both pre-service and in-service teacher trainees. ACR-Cambodia annual reports indicate significant improvement in the capacity of MoEYS to deliver teacher training to date, and subsequent stakeholder interviews have confirmed the strong promise that investment in pre-service training holds for sustainability.

Annex B. MEL Rubrics

IDP's MEL Plan rubric was developed using USAID's documented guidance for the required and recommended components of an activity's performance monitoring plan (PMP) and monitoring, evaluation, and learning (MEL) plan, specifically ADS 201.3.2.14 and 201.3.4.10, as well as the supplementary "How-To Notes" available through USAID's Learning Lab. IDP[49] used the scale below to evaluate the extent to which MEL Plans align with USAID's standards.

Exhibit 34. MEL Plan Evaluation Scale

NA	Not applicable (used for recommended components)
0	No alignment
1	Limited alignment
2	Strong alignment

The scale was used to score a number of MEL Plan sections and individual components, which are displayed in the exhibit below.

Exhibit 35. MEL Plan Sections and Components

MEL Plan and Project Overview
A. Introduction or overview
B.1.1 Project results framework
B.1.2 Relationship to the Country Development Cooperation Strategy (CDCS) results framework
B.1.3 Theory of change (TOC) as captured in the results framework (or log frame)
B.2 Partnership contributions and roles and responsibilities
C. Monitoring plan component
C.1.1 Performance indicator list and characteristics
C.1.2 Gender-sensitive indicators
C.1.3 Context indicators and monitoring assumptions
C.1.4 Complementary monitoring
D. Performance indicator reference sheets
D.1.1 Tracking table
D.1.2 Performance targets and baselines (in tasks schedule and guidance)
D.1.3 Indicator disaggregation
D.1.4 Sharing and reporting project performance
E. Data quality standards and assessments plan
F. Schedule of performance monitoring tasks and responsibilities
G. Evaluation design
G.1.1 Evaluation purpose and evaluation questions
G.1.2 Evaluation types (performance/process, outcome, impact) and methodology outlined
G.1.3 Sample design
G.1.4 Methods outlined (instruments)
G.1.5 Analysis plan

[49] See PMP: Overall guidance USAID ADS 201.3.2.14 Performance Monitoring Plan (PMP) and MEL Plan: ADS 201.3.4.10.

G.1.6 Preparing evaluation report
H. Evaluation quality control procedures
I. Evaluation sharing and dissemination

Exhibit 36. Project Overview Evaluation

Component	Score
A. Introduction or overview (recommended)	2
B.1.1 Project results framework (recommended)	2
B.1.2 Relationship to the Country Development Cooperation Strategy (CDCS) results framework (recommended)	1
B.1.3 Theory of change (TOC) as captured in the results framework (or log frame) (recommended)	N/A
B.2 Partnership contributions and roles and responsibilities (recommended)	1

Summary

The All Children Learning Updated Monitoring, Evaluation, Learning (MEL) Plan and Quality Assurance/Quality Control Plan was submitted in July 2019 and is applicable to the ACR-Cambodia activity. The updated MEL Plan provides a concise introduction and overview on the plan's name change, updates made, and the purpose of the document. Notably, this activity is also taking part alongside UNESCO and GPE's Strengthening Teacher Education Programmes in Cambodia (STEPCam) program, which is focusing on other education systems reform, including mathematics instruction.

The updated MEL Plan provides a results framework and clear evaluation questions to be answered under this activity. The plan does not specifically mention the Country Development Cooperation Strategy (CDCS); however, in the results framework for the activity, it does state the overall country objective: to improve reading skills for 100 million children in primary schools. This is the second objective in the country's CDCS. From this objective, the results framework clearly states the goal of the activity and specific objectives to be completed under that goal. Although the results framework is concise, the IP did not provide a theory of change, and no reference to a theory of change could be found in previous M&E plans, annual work plans, or the response to the solicitation request. Local NGO partners are mentioned at various points in the MEL Plan narrative but are not named nor are their roles clearly described.

Exhibit 37. Monitoring Plan Component Evaluation

Component	Score
C.1.1 Performance indicator tracking table (PITT) (required)	2
C.1.2 Gender-sensitive indicators (recommended)	N/A
C.1.3 Context indicators and monitoring assumptions (recommended)	1
C.1.4 Complementary monitoring (recommended)	N/A
D. Performance indicator reference sheets (PIRS) (required)	2
D.1.1 Tracking table (required)	2

D.1.2 Performance targets and baselines (in tasks schedule and guidance)	2
D.1.3 Indicator disaggregation (required)	2
D.1.4 Sharing and reporting project performance (recommended)	1
E. Data quality standards and assessments plan (required)	1
F. Schedule of performance monitoring tasks and responsibilities (recommended)	1

Summary

The MEL Plan has a clear performance indicator tracking table (PITT), which lists indicators at the sub-IR level with clear dates and targets for baseline data collection as well as data targets for subsequent years and how the data will be disaggregated. This information is based on the PIRS found in the FY18 MEL Plan. Data collected may be disaggregated by sex, region, or type (document, organization, partnership) or some combination of these. There are no gender-sensitive indicators.

The activity is framed numerous times in the MEL Plan as an inclusive EGR (or learning) program. However, while six output indicators are specific to children with disability or vulnerable persons (which includes persons with disabilities), the MEL Plan contains little narrative description of inclusive activities. Aside from these six indicators, other outcome and output indicators are more general (for example, related to tracking teaching and learning materials developed, teachers trained, and schools reached, etc.), but ACR-Cambodia's results and sub-results mention including services or benefits to students with disabilities. Thus, the more general indicators are intended to capture this population, although the design does not include a way to test the theory that all children will benefit from the intervention. ACR-Cambodia does not specifically assess learning outcomes of students with disabilities as a measure of program impact.[50] The MEL Plan does not indicate whether this choice is due to feasibility constraints or, rather, is driven by the program's theory of change (which, as mentioned above, is not included in the MEL Plan).

The output indicators specifically related to students with disabilities or vulnerable persons are:

1. Number of primary or secondary school educators who complete professional development activities on teaching students with special educational needs with United States Government (USG) assistance (ES 1-8)
2. Number of service providers trained who serve vulnerable persons (ES 4-2)
3. Number of vulnerable persons benefiting from USG supported social services (ES 4-1)
4. Number of students with disabilities assessed using adapted assessment methods (including from partner organizations and MoEYS) (custom indicator)
5. Number of USG-assisted organizations and/or service delivery systems that serve vulnerable persons strengthened (ES 4-3)

[50] Due to small sample size, among other factors, the adapted EGRA that was field tested with students who are blind or have low vision or are deaf or hard of hearing was not used as a measure of the program's impact on the learning outcomes of students with these disabilities.

6. Number of MoEYS and partner organization staff trained on harmonized EGRA and/or adapted assessment for students with disabilities (custom indicator)

The PITT does not indicate who, within the IP's M&E team, will be responsible for data collection, dissemination, or reporting; however, the PIRS does indicate the title of who will be responsible for overseeing data collection. Information on performance monitoring and reporting is limited, but the MEL Plan states that data will be routinely checked and reported quarterly or in accordance with USAID standards.

The section on data quality assurance is detailed, particularly with regard to the ways that electronic data collection enhances data quality by limiting human error and securing data once collected. This section would be stronger if it included more information about how assessors/enumerators will be trained and how data quality will be assured and monitored via training and field monitoring (aside from daily data checks). Assessor accuracy measurement (AAM) and inter-rater reliability (IRR), for example, are not mentioned.

Exhibit 38. Evaluation Component

Component	Score
G. Evaluation design (required)	2
G.1.1 Evaluation purpose and evaluation questions (required)	2
G.1.2 Evaluation types (performance/process, outcome, impact) and methodology outlined (required)	2
G.1.3 Sample design (required)	2
G.1.4 Methods outlined (instruments) (required)	1
G.1.5 Analysis plan (required)	1
G.1.6 Preparing evaluation report (recommended—these may not be fully detailed in the MEL Plan)	N/A
H. Evaluation quality control procedures (recommended)	2
I. Evaluation sharing and dissemination (recommended)	1

Summary

The MEL Plan has a section describing an internal performance evaluation that is designed "to enable MoEYS and all its partners to assess and appreciate the outcomes achieved under different approaches to implementing the national early grade learning program." ACR-Cambodia and GPE are implementing the reading program in different regions with different approaches. The evaluation is meant to determine whether one approach works better than the other, which will inform plans for scaling the program to the national level.

The section includes research questions and a clear and detailed sample design. Evaluation methods and instruments are mentioned (EGRA, classroom observations, and interviews) but not in detail. There is a description of how data will be cleaned and processed but little detail about analysis plans. There is no description of the eventual evaluation report. While there is some mention of data enabling "recommendations for programmatic enhancements to teacher training, coaching and resources," there is little other detail about sharing or dissemination plans.

The performance evaluation does not appear to include research related to children with disabilities. Further, the learning plan section, which includes a description of the project's research agenda, does not mention an intentional plan to learn about or research inclusive instruction or ways to support students with disabilities.

To ensure quality data, the IP states it will follow USAID's Data Quality Standards and aim to complete one self-assessment per year using USAID's data quality assessment (DQA) template. The IP also states that the ACR-Cambodia project manager will use USAID's DQA template quarterly to check the data of at least two indicators. The ACR-Cambodia project manager will be responsible for disseminating information to stakeholders based on USAID reporting requirements. It is unclear with whom specifically (beyond USAID) data will be shared and at what intervals.

Exhibit 39. Roles and Responsibilities and Data Security Evaluation

Component	Score
M&E team roles and responsibilities (recommended)	1
Data security (required)	2

Summary

The MEL Plan provides a brief description of the roles and responsibilities of the M&E team, including linkages to other members of the ACL-Asia activity. Although the IP does provide some description of M&E team members' roles, there is a lack of information on how many people make up the M&E team and each of those members' specific responsibilities. This lack of data is a limitation in assessing if linkages to partners are adequate.

The IP utilizes the Tangerine software platform to capture data and upload it to the program servers. If for some reason data cannot be captured electronically, data collectors will utilize traditional paper methods and then transfer data into the Tangerine software as soon as possible. All data collected on paper will be collected by the M&E manager who will keep it secured in a locked cabinet; these files will be kept for two years after the end of the program and then destroyed. Additionally, the M&E team will use Excel or another online database to create visual representations of data. All electronic data will be restricted to the ACR-Cambodia project team to ensure security. Data will only be shared publicly after it is finalized and cleaned by the M&E manager; the M&E manager will be responsible for uploading the clean data to the Development Data Library at that time.

Annex C. Screening Rubrics

The evaluation of the ACR-Cambodia approach to hearing and vision screening utilized two distinct rubrics: one rubric to review the screening tools and a second rubric to review screening training content and materials provided to a subset of teachers and school directors. Both are described below.

Rubric to Review Screening Tools

Using best practices from the literature and drawing from direct experience implementing screening in similar contexts, IDP researchers developed a rubric for evaluating the vision and hearing tools used by ACR. The rubric comprised two sections: one for vision and another for hearing, each with a set of standards. The rubric was modeled around the different aspects or "standards" of hearing and vision screening identified in the research literature as important. For vision, screening tools should not require spatial orientation, knowledge of the alphabet, or verbal responses, and the lines and optotypes should be proportionally spaced (Nottingham Chaplin & Bradford, 2011). For hearing, screening tools should use standard, pure, and isolated tones and have the capability to test individual ears at both high and low frequencies (American Academy of Audiology, 2011). Two IDP researchers used a five-level rating scale to identify the degree of alignment of each criterion with the tools observed (N/A, 0, 1, 2, 3).

Rubric to Review Screening Training

Further to the rubric used to assess the screening tools themselves, a separate team of three IDP researchers independently piloted and completed the training rubric by consensus discussion to evaluate the ACR-Cambodia delivery of screening training. This training rubric was informed by a review of literature on training and professional development for inclusive education (Hayes & Bulat, 2017; Hayes et al., 2018; McCollow, Shurr, & Jasper, 2015; Tristani & Bassett-Gunter, 2019) and examined the following domains: training participants, modalities, content, degree of accessibility, and potential for sustainability after the life of the project, as it pertained to screening training specifically. In addition to reviewing training materials, IDP based its conclusions for this review on the findings reported by ACR in its quarterly and annual reports that referenced instructional training. The same five-level rating scale was also used to identify the degree of alignment of each criterion (N/A, 0, 1, 2, 3).

In addition to the report narrative, the following text has synthesized the findings of the two rubric analysis processes; the screening tools and the training on the tools are both evaluated.

Program Activities

In August 2018, ACR field-tested screening tools for vision (Tumbling E chart and LEA Symbols chart) and hearing (voice test and parent questionnaire). An audiometry test administered by a trained professional from Krousar Thmey was used to confirm the voice test results. The project screened 212 children for vision disabilities and referred one child for further assessment. With respect to hearing disabilities, project staff screened 202 children; there were no referrals for further testing. As part of the field test, ACR interviewed a small sample of (n=6) teachers about their experience with the screening tools and procedures and the referral process. Teachers found

the LEA Symbols chart simple and easier to use than the Tumbling E chart; they reported that the voice test was simple and easy for children to understand. Because no sound meters were used in the field test, ACR concluded that it was difficult to determine if sound levels were consistent through voice testing in the field.

Pilot Teacher Training

In October 2018, teachers were trained in two types of screening methods (and corresponding referral process): hearing (voice test and parent questionnaire) and visual (LEA Symbols chart and Tumbling E chart). Screenings were not intended to identify a particular type of disability but to provide information to stakeholders that children potentially identified as having a disability would be referred for further testing. Simple screening tools and procedures were developed to help teachers understand which children in their classrooms may have a potential hearing or vision loss.

Screening and Referral Full Pilot

The full pilot sample was 103 schools (28 in Stueng Saen and 75 in Kampong Svay). Screening data were collected from 61 preschool teachers (97% female) and 137 grade 1 teachers (80% female) who were teaching in these schools in the two pilot districts. The project screened 5,594 of a possible 5,804 children during the pilot test. Children who were not screened were absent, but ACR reported “10 students were perceived to have an intellectual disability that made it difficult to participate in the screening” (Screening Report, p. 3). A total of 96% of preschool students and 96% of grade 1 students were screened overall.

Vision screenings took place in a classroom. Children were seated three meters from a wall and shown the LEA Symbols chart and a Tumbling E (otherwise known as an “E” or Snellen) chart. Reports indicated that children would be asked to identify pictures at a 6/60, 6/36, 6/12, and 6/6 levels, which are the levels that are used in the Snellen chart to test visual acuity. Standard or “normal” vision would allow someone to see a picture on the 6/6 row on the Snellen chart. In this screening, children who could identify the 6/6 row were considered to have “good” vision; those who could only identify the 6/12 row and higher were supposed to be monitored by teachers. Teachers were told they “must refer” a child who could only read 6/36 and “must refer immediately” a child who could only read the 6/60 row. ACR concluded that the LEA Symbols chart was easier for children to use.

Levels of acuity (6/6, 6/12, 6/36, and 6/60) come from the original rows of the Snellen (letter) chart, for which screenings take place from six meters away. Thus, a person with standard vision could see an image six meters away clearly (6/6); a 6/12 image means that a person with standard vision could see the image from 12 meters away, but the person being screened can only see them from 6 meters (or in this case, three meters), indicating a possible vision loss. The recommended distance for the LEA chart is three meters but keeps the same distinctions for visual acuity. ACR-Cambodia visual acuity levels for further referrals follow international norms.

For hearing screening, ACR-Cambodia used a combination of voice test and parent questionnaire. Refer to the section on Screening and Referral Full Pilot for a description of how the voice test was implemented. Teachers were instructed to administer a 10-item questionnaire to the parents of a child suspected to have hearing loss, including asking whether the child can hear quiet sounds, respond when his or her name is called, or has any drainage from the ear.

A total of 80% of the schools participating in the pilot received a monitoring visit from project staff (inclusive education field team) on the first day of screening. Because initial screening results were determined to be inaccurate, the project re-screened a sub-sample of 504 students from six of the participating schools six months after the initial screening and found an additional eight students in need of referral. Interviews with teachers and input from the inclusive education field team indicated that teachers were not "performing the screening accurately" (Screening Report, p. 4).

Screen Rubric Checklist Evaluations

Exhibit 40. Training Participants

Evaluation Criteria	Score
Training participants represent intended beneficiaries, such as teachers, head teachers, school directors, etc.	3
Training participants represent intended government departments.	3
Training participants represent intended NGOs.	N/A
Training participants represent intended DPOs.	0
Training participants represent intended regions/districts.	3
Number of training participants aligns with implementation model.	3
Gender is equitably represented among training participants.	3

ACR implemented three one-day screening workshops (October 2018) in the two pilot districts (Kampong Svay and Stueng Saen), training 199 preschool and grade 1 teachers (the target was 220) and 90 school directors (the target was 102) on screening and referral. Women comprised 49% and 17% of the teachers and school directors who participated in the training, respectively. The latter percentage is reasonably consistent with education statistics from Kampong Thom Province, where only 28% of non-teaching primary school staff are women (MoEYS, 2019). In addition to teachers and school directors, 26 representatives from relevant national and subnational government entities (ECED, POE, SED, POE, and DOE) also participated mostly as observers in the screening training, as did 19 representatives from the CCWC.[51]

For school leaders and representatives, particularly from CCWC, POE, and DOE, training for screening is critical given their important role in the referral process and represents an effective strategy that could support sustainability. Indeed, trainers were instructed to engage school leaders, CCWC participants, and inclusive education officers in discussing the referral process

[51] Established in 2004, CCWC members monitor the situation of children and women within their respective commune and advise the Commune Council on issues relating to services and support that meet the needs of these children and women.

with each other during the training session while teachers were practicing screening with their peers. The critical role that CCWC workers can play in liaising with parents was clearly highlighted, and the importance of continually engaging them in future screening efforts was emphasized.

Exhibit 41. Training Modalities and Delivery Evaluation

Evaluation Criteria	Score
IP conducts training according to established timeframe.	3
IP conducts training at intended frequency.	3
IP conducts training for intended duration.	3
Trainers have experience relevant to evidence-based EGR/literacy.	N/A
Trainers have experience relevant to inclusive education strategies.	2
IP engages disability stakeholders in training on inclusive education strategies	0
Training delivery allows for application of evidence-based EGR/literacy methodologies to classroom practice.	N/A
Training delivery allows for application of screening methodologies to school-based settings.	2

ACR's screening training plan, comprised of face-to-face trainings, monitoring for some training participants, and eventually videos describing the screening procedure and referral process, delivered to all teachers via Telegram Messenger was robust. For the face-to-face trainings, ACR used a ToT approach without cascading, an effective and widely used method in teacher professional development. Specifically, the project recruited a team of master trainers, comprised of representatives from SED, PED, and ECED, and trained them in screening methodologies and referral processes. Master trainers were trained directly by ACR's inclusive education director with support from other project staff and an optic nurse. A Screening Training Manual was used to guide the ToT and the subsequent teacher training workshops. Training participants had an opportunity to practice screening with their peers. After completing the training, teachers implemented the screening in their respective classrooms, with 80% of them receiving a monitoring visit from ACR's inclusive education field team on the first day of screening.

Exhibit 42. Training Content and Materials Evaluation

Evaluation Criteria	Score
IP ensures teacher training, training materials, and ongoing teacher support align with EGR/literacy curriculum and materials.	N/A
IP ensures evidence-based EGR/literacy methodologies are consistently incorporated in teacher training, training materials, and ongoing teacher support.	N/A
Training addresses teachers' disability/inclusive education attitudes, beliefs, and perceptions in a way that allows for personal reflection and dialogue.	3
IP ensures inclusive education strategies (screening methodologies) are consistently incorporated in teacher training, training materials, and ongoing teacher support.	2
IP ensures teacher training, training materials, and ongoing teacher support align with professional development goals of national literacy and inclusive education policies.	0
Educators are consulted to provide feedback on training delivery and/or materials.	2

Exhibit 43. Training Accessibility Evaluation

Evaluation Criteria	Score
IP holds training at venue accessible to training participants.	0
IP holds training in local language(s), including local sign language.	3
IP provides accommodations to participants with disabilities, such as materials in large print, braille etc.	0
Training materials are appropriately incorporated into the training.	3

A *Screening Training Manual* that described the various screening methodologies and referral processes in a detailed and scripted manner was used to guide the teacher training workshops. Specifically, the manual introduced trainees to the goals and objectives of screening and referral, covered basic eye/ear health, provided step-by-step instructions for screening and referral (including the roles and responsibilities of key partners in these processes), and contained all necessary checklists and documentation for screening procedures and referral. These clear instructions, along with support from the inclusive education field team, provided a strong structure for disseminating new screening and referral information to teachers through master trainers.

The manual also contained short, simple tips for accommodating students with vision and hearing disabilities. These tips are consistent with the inclusion tips in some of the teachers' guides. Their use in this training was an important indicator that the screening results were intended to inform classroom practices. Apart from the manual, ACR produced screening leaflets and videos detailing the screening procedure and referral process as additional resources for teachers.

A review of the training agenda included in the manual indicates that the training provided opportunities for teachers to practice screening with their peers. Each training had two practice sessions, one for vision screening (one hour and 50 minutes) and another for hearing screening (one hour and 45 minutes) as well as two shorter sessions (each 10-to-15 minutes), in which teachers reflected on their training experience and could ask questions. The inclusion of these practice sessions is significant because they provided time for participants to learn how to apply the training content in a practical manner.[52]

ACR's efforts to consult educators and other key stakeholders on training delivery and materials is commendable. Consultation included interviews with a small sample of six teachers regarding the screening tools and procedures and the referral process and reflective sessions with teachers after each screening training workshop. ACR also held a one-day consultation workshop (February 2019) with representatives from relevant government entities (MoEYS, POE, and DOE) and the inclusive education field team to discuss preliminary pilot findings, reflections, and lessons learned.

[52] Subsequent KIIs suggest even more time may have been beneficial.

Beyond the tips for accommodating children with vision and hearing disabilities in the *Screening Training Manual*, there may have been opportunities to broaden the scope of the training objectives to reflect linkages to classroom instruction. For example, the focus was on referral itself instead of referral to ensure access and inclusion in the classroom setting, a focus that may have been driven in part by limited training time. There was also a dearth of language in training about how these activities may support a broader, national vision for inclusive education.

Additional Rubric Scores

Exhibit 44. Screening and Screening Training Evaluation

Vision Screening

Standard	Score
Tool does not require spatial orientation (if used with children under eight years of age)	3
Tool does not require literacy/knowledge of the alphabet	3
Test has capability to respond verbally or through pointing/matching	3
Lines of the test are proportionally spaced	3
Optotypes are proportionally spaced	3

Hearing Screening

Standard	Score
Tool uses pure tones	0
Tool uses isolated tones (not a gradient)	0
Tool tests individual ears	0
Tool is meant to be administered to another person (not self-administered)	3
Tool administers a clear pass/fail and does not require interpretation	0
The tool's sound is standardized	0
Tool has internal calibration of noise intensity	0
Tool has capability to identify both high- and low-frequency hearing loss	0
Tool is used with calibrated noise cancelling earphones	0

Exhibit 45. Follow-Up Support and Sustainability Evaluation

Evaluation Criteria	Score
IP uses capacity-building strategies to sustain training and training impact, such as training of master trainers.	3
IP provides ongoing teacher coaching and mentoring support.	2
IP creates repository of information for training participants/beneficiaries.	0
IP supports communities of practice or similar forum for training participants/beneficiaries to share information and updates.	0
Government incorporates aspects of IP training into national in-service training (INSET).	0
Government incorporates aspects of IP training into national pre-service training (PRESET).	0

Annex D. Training Rubrics

Exhibit 46. Training Participants Evaluation

Evaluation Criteria	Score
Training participants represent intended beneficiaries, such as teachers, head teachers, school directors, etc.	3
Training participants represent intended government departments.	3
Training participants represent intended NGOs.	3
Training participants represent intended DPOs.	0
Training participants represent intended regions/districts.	3
Number of training participants aligns with implementation model.	3
Gender is equitably represented among training participants.	2

Exhibit 47. Training Modalities and Delivery Evaluation

Evaluation Criteria	Score
IP conducts training according to established timeframe.	3
IP conducts training at intended frequency.	3
IP conducts training for intended duration.	3
Trainers have experience relevant to evidence-based EGR/literacy.	N/A
Trainers have experience relevant to inclusive education strategies.	N/A
IP engages disability stakeholders in training on inclusive education strategies.	0
Training delivery allows for application of evidence-based EGR/literacy methodologies to classroom practice.	3
Training delivery allows for application of inclusive education strategies to school-based settings.	2

Exhibit 48. Training Content and Materials Evaluation

Evaluation Criteria	Score
IP ensures teacher training, training materials, and ongoing teacher support align with EGR/literacy curriculum and materials.	3
IP ensures evidence-based EGR/literacy methodologies are consistently incorporated in teacher training, training materials, and ongoing teacher support.	3
Training addresses teachers' disability/inclusive education attitudes, beliefs, and perceptions in a way that allows for personal reflection and dialogue.	2
IP ensures inclusive education strategies (screening methodologies) are consistently incorporated in teacher training, training materials, and ongoing teacher support.	2
IP ensures teacher training, training materials, and ongoing teacher support align with professional development goals of national literacy and inclusive education policies.	3
Educators are consulted to provide feedback on training delivery and/or materials.	3

Exhibit 49. Accessibility Evaluation

Evaluation Criteria	Score
IP holds training at a venue accessible to training participants.	0

IP holds training in local language(s), including local sign language.	3
IP provides accommodations to participants with disabilities, such as materials in large print, braille, etc.	0
Training materials and student/teacher TLMs are appropriately incorporated into the training.	3

Exhibit 50. Follow-Up Support and Sustainability Evaluation

Evaluation Criteria	Score
IP uses capacity-building strategies to sustain training and training impact, such as training of master trainers (train-the-trainer or ToT model, not including the cascade version of ToT).	3
IP provides ongoing teacher coaching and mentoring support.	3
IP creates repository of information for training participants/beneficiaries.	0
IP supports communities of practice or similar forum for training participants/beneficiaries to share information and updates.	2
Government incorporates aspects of IP training into national in-service training (INSET).	3
Government incorporate aspects of IP training into national pre-service training (PRESET).	3

Annex E. TLM Rubrics

Evidence Base for TLM Rubrics

In order to evaluate the efficacy of the models of instruction in the ACR program, IDP relied on the extensive secondary literature available in the forms of quarterly and annual reports. IDP then constructed rubrics that reflected the evidence base found in the pages above related to inclusive literacy. The first IDP tool (TLM Rubric A) measures the existence and quality of the following domains:

1. **Well-designed learning activities:** Well-designed, engaging learning activities are those that provide students with experiences that support clear learning goals and are interactive (Chambers, Cheung, Slavin, Smith, & Laurenzano, 2010). The use of well-designed activities supports fidelity of implementation, as they enable teachers to deliver the curriculum as it was designed to be used.

2. **Supporting materials for teachers:** Teacher support materials and instructional resources are important means of enabling teachers to deliver their curricula with increased quality and fidelity.

3. **Assessment materials:** Teachers are most effective when they understand their students' strengths and learning needs. Assessment is a means of systematically learning about students' reading development. Effective curricula include ongoing assessments linked with learning goals that are user-friendly and provide teachers' guidance in how to interpret student performance to inform instruction.

4. **Consideration for diverse student needs:** Schools often exhibit great student cultural and socio-economic diversity. Further, research has revealed that up to 15% of school-aged students may have reading difficulties and that responsive early literacy instruction can significantly reduce reading difficulties (Vellutino, Fletcher, Snowling, & Scanlon, 2004). Broadly speaking, students learn best in environments that are responsive to cultural and ethnic diversity, as well as ones in which their social, emotional, and cognitive needs are met. As described above, UDL principles support diverse student needs. Additionally, this would include providing targeted support to students with disabilities, such as large print text or magnifiers for students with difficulty seeing, preferential seating for students as needed, or additional practice during and outside of class hours.

5. **Second language teaching techniques:** Children whose home language differs from the language of instruction face the challenge of learning an additional language at the same time as learning to read. Programs that support dual-language learners, through the use of second language teaching techniques and promoting proficiency in the home language, are more effective in promoting literacy development.

The second rubric related to inclusive literacy instruction (Rubric B) was grounded in an evidence base around both inclusive pedagogy and literacy methodologies. The following exhibit

demonstrates how evidence-based literacy domains can be combined with UDL elements to create an inclusive approach to literacy. The domains outline *what* needs to be taught, while UDL provides ideas on *how* to teach literacy domains.

Exhibit 51. Teaching Domains and UDL Examples

Domain	Description of Domain	UDL Examples for Teaching Domains
Phonological/phonemic awareness	This is the ability to explicitly identify and manipulate the sounds of language, such as rhymes, syllables, and phonemes. Phonological awareness is considered a critical skill for reading acquisition, as it supports learning the letter-sound correspondences that underlie fluent word recognition and skilled spelling.	Clapping and stomping to segment sounds; use of images or concrete objects to link sounds to meaningful concepts; games and songs including thumbs up/thumbs down game
Phonics and word recognition	Developing strong, effortless word recognition skills is critical so that students can transition from word reading to fluency, and tackle increasingly complex texts. Teaching children to decode, through phonics, analyze word parts, and recognize words on sight, have been found to be critical components of effective reading instruction.	Use of manipulatives such as letter cards or letters shaped from local materials; identifying letters or words in print-rich classroom materials and walls; games and songs such as a matching game
Reading fluency	This refers to the ability to read text accurately, automatically, and with expression. Fluent reading enables children to focus their attention on constructing meaning from text rather than decoding. An important means of building fluency is providing students with ample practice to read connected text rather than just isolated words and phrases.	Support to struggling readers through repeated practice, slower pace, or individual attention; round robin reading and reading in pairs; small group practice
Vocabulary	Vocabulary knowledge is critical for reading comprehension, as children must understand most of the words they encounter in order to effectively construct meaning. Written language is rich in low-frequency, abstract words and academic vocabulary, which tend to be uncommon in oral language. Thus, building students' vocabulary and teaching students strategies to learn new words is an important component of effective reading instruction.	Creating linkages between vocabulary and personal experience, such as use of images, acting out vocabulary words through dramatization, bringing in concrete objects, or drawing pictures of new concepts

Reading comprehension	Comprehending text requires more than accurate and fluent word recognition. It requires the active construction of meaning from text. Numerous strategies have been found to help students become purposeful, active readers.	Answering questions that relate to personal experience; turn and talk or think-pair-share discussion activities; having a choice of expressing understanding through speaking, pointing, writing, or drawing
Oral language development	Oral language skills include children's knowledge of grammar, discourse, and pragmatics (or social use of language). Each of these skills are important contributors for reading comprehension. For example, children's understanding of narrative structures, or story grammars, supports reading comprehension. These skills are often taught orally before they are applied to reading texts.	Linking oral language content to personal experience; games and songs that encourage oral language development; speaking both in large and small groups to encourage individual participation
Writing (added by IDP)	Writing is producing printed text in order to express ideas. The stages of learning to write progress from scribbles to crafting letters, to spelling simple and then more complex words, to writing sentences and paragraphs. Learning to write draws on emergent literacy skills as well as oral language skills, in order to express ideas about a given topic. Writing instruction includes transcription skills (handwriting and spelling), writing for meaning, and ample practice time, integrating writing with reading and learning other subjects.	Ample practice and time including small group or pair work; added practice through tracing in the air or in the sand; tracing new letters with string or forming letters using local materials

TLM Areas of Review

IDP selected a sample of lesson plans randomly from the preschool, grade 1, and grade 2 teachers' guides. The selected lessons were translated into English and independently reviewed by the same two IDP researchers, with a third researcher providing additional expertise and input. The sampling design was as follows:

1. No fewer than 10% of total lessons from the full preschool teachers' guide and from each semester of the grade 1 and grade 2 teachers' guides
2. At least one example of any unique instructional routine

Exhibit 52. TLM Areas of Review

Grade	Content Reviewed
Preschool	Introduction + 9 lessons
Grade 1, semester 1	Introduction + 12 lessons
Grade 1, semester 2	14 lessons
Grade 2, semester 1	Introduction + 11 lessons
Grade 2, semester 2	15 lessons

Three researchers participated in the rubric review process and used consensus scoring. All reviews used a five-level rating scale to identify the degree of alignment of each criterion (N/A, 0, 1, 2, 3).

The following is a detailed narrative regarding each of the individual rankings for all domains and the rationale for these rankings based on strengths and areas of need. These rankings are broken down by grade level and separated according to Rubric A and Rubric B

Exhibit 53. Rubric A – Preschool: Overall Scoring

Preschool	
Evaluation Domain	**Score**
Presume competence	2
Build on strengths	2
Diverse student needs	2
Positive behavioral support	0
Contextual suitability	2
Gender	1
Ensuring dignity	0
Access and availability	2

Presume competence

The teachers' guide was written in such a way that assumes struggling learners and students with disabilities have access to the formal education system and provides some strategies for teachers and school leaders to enable access to the general education curriculum. For example, the guide instructs teachers to incorporate simple sign language into classroom instruction for all students. These sign language examples are often paired with games and incorporated into stories, and teachers are encouraged to engage students in various literacy activities (e.g., teaching a phonics lesson, reading a story) and incorporate sign language while teaching those literacy activities.

Missing from the teachers' guide are detailed and realistic strategies that teachers can use to accommodate struggling learners and students with disabilities (see the grade 1, semester 1 teachers' guides for an example). However, it is possible that a lesser focus on disability in this preschool guide was consistent with the assumption that students would not have been screened for hearing or vision difficulties at this time. Additionally, the guide would benefit from incorporating specific scripted language about presuming competence, such that the messaging that teachers

must assume all children can and want to learn is clearly reinforced throughout (Jorgensen, McSheehan, & Sonnenmeier, 2007).

Build on strength

As mentioned in the section on presume competence, the teachers' guide assumes access to the general education curriculum. It also instructs teachers to encourage students to share their knowledge and experiences related to a particular topic, which is a UDL strategy consistent with building learner engagement and motivation. Specifically, the literacy instructional routine to be used by teachers for storytelling consists of three parts—before, during, and after storytelling—and each part has an associated set of activities. Before storytelling, teachers typically ask students about their knowledge and experience related to the topic addressed in the story. For example, in the story about a cake (pp. 159-160), teachers are instructed to ask students if they have ever eaten cake and, if so, with whom they ate or shared cake. In the story about walking in the garden/being outside (pp. 188-190), teachers are instructed to ask students where they typically spend time with their parents and families (at home, at the pagoda, etc.), what these places look like, if there are any trash bins, and how trash bins are used.

The guide would benefit from providing strategies for teachers to apply the newly learned literacy instructions (not only the storytelling routines) in such a way that builds on student strength in a consistent manner. For example, the guide could instruct teachers to identify and document students' strengths and abilities (in addition to students' knowledge and experience) and infuse this information into lessons in order to increase students' success.

Diverse student needs

The literacy instructional routines for teaching phonics and oral comprehension incorporate strategies (such as the use of visuals, objects, signs/signing, and gestures) that create access points and opportunities for engagement for all students, including struggling learners and students with disabilities. This can be considered a strength of the project. However, although the guide includes general tips for teachers to support them in applying particular literacy instructional strategies, the material would clearly benefit from detailed and realistic strategies that the teacher can use to accommodate struggling learners and students with disabilities. For an example, please see the "inclusion tips" in the grade 1, semester 1 teachers' guide. It is equally important for the materials to acknowledge the wider range of sensory or intellectual experiences that children with disabilities have.

Positive behavioral support

There was no mention of positive behavioral support (PBS) in the teachers' guide. Considering PBS in developing teachers' guide materials is important as it helps teachers to better understand behavior as a form of communication and to view behavior from a strength-based perspective. Acknowledging that this is an emerging approach in Cambodian primary education (Persson & Leng, 2017), there are simple ways in which the teachers' guide could begin to incorporate PBS into classroom instruction. For example, the guide could instruct teachers to specifically praise or "call out" student behavior that is contextually appropriate with a positive statement (e.g., "Thank

you for participating respectfully"), thereby communicating what is considered desired behavior to all students.

Contextual suitability

The introduction to the teachers' guide states that both the literacy instructional content and approach align with the general education curriculum. For example, the introduction includes an exhibit that compares the MoEYS literacy instructional approach with that used in the teachers' guide, emphasizing that the latter constitutes an enhancement. The enhancement takes the form of suggested activities that teachers can use for classroom instruction. Examples of activities are guessing games, "yes and no" games, "same or different" games, writing in air, gesture games, etc. The guide also contains imagery of persons demonstrating signs in CSL, which provides additional support for the contextual suitability of the material.

Furthermore, project reports indicate that ACR-Cambodia used a collaborative approach to developing and revising the teachers' guide, including consultations with MoEYS and NGO partners, school visits, and teacher and literacy coach feedback as well as reflective conversations with teachers after the teacher training workshops. This approach may have helped ensure the content of the teachers' guides reflects the realities and needs of the teachers, which can be considered a strength of the project.

The teachers' guide, however, would benefit from specifically referencing a connection to Cambodia's 2018 Inclusive Education Policy[53] as well as international laws that support inclusive education (such as Article 24 of the CRPD). Incorporating imagery of both men and women (for more detail see section on gender below) and imagery of people with a range of disabilities would contribute to the material acknowledging national diversity.

Gender

The teachers' guide includes imagery of persons demonstrating signs; however, these persons primarily represent boys. Although imagery is not a core focus of teachers' guides; guides would benefit from images, such as persons signing, that were more consistent in gender equity and disability representation.

Ensuring dignity

There was no content in the teachers' guide that provided teachers with information on how to ensure dignity of students. The teachers' guide would benefit from including specific language that stresses the importance of respectful communication and dignity with and regarding struggling learners and students with disabilities to promote a climate of mutual respect and equality for all students.

[53] The passing of Inclusive Education Policy in 2018 may have overlapped with the period within which the teachers' guides were developed. Thus, ACR-Cambodia may not have had the option to reference this policy in this TLM material.

Access and availability

The widespread distribution of the teachers' guide and supplemental materials in hard copy format to a large cohort of preschool teachers at the teacher training workshops is a strength of this program. It was unclear, however, if the materials were available in alternative formats. Providing the guides in a variety of formats and creating a central, online accessible repository of teacher TLMs, including the guides, is an area for improvement.

Exhibit 54. Rubric A – Grade 1, Semesters 1 and 2: Overall Scoring

Grade 1		
Evaluation Domain	**Semester 1 score**	**Semester 2 score**
Presume competence	2	2
Build on strengths	2	2
Diverse student needs	2	1
Positive behavioral support	0	0
Contextual suitability	2	2
Gender	2	0
Ensuring dignity	0	0
Access and availability	2	2

Presume competence

Both teachers' guides communicate that struggling learners and students with disabilities have access to the formal education system and provide some strategies for teachers and school leaders to enable access to the general education curriculum. For example, the guides utilize "inclusion tips" that instruct teachers on how to accommodate students with learning, vision, and hearing difficulties. These tips are consistent with UDL principles. The semester 1 guide also instructs teachers to incorporate simple sign language into classroom instruction for all students. These sign language examples are often paired with games and incorporated into stories, and teachers are encouraged to engage students in various literacy activities (e.g., teaching a phonics lesson, reading a story) and to incorporate sign language while teaching those literacy activities.

Continuing the use of sign language in semester 2 may have helped to ensure consistency across teacher materials/instructional routines and classroom instruction. The guides would also benefit from incorporating specific scripted language about presuming competence, to clearly reinforce messaging throughout that teachers must assume all children can and want to learn (Jorgensen, McSheehan, & Sonnenmeier, 2007).

Build on strength

As mentioned in the section on presuming competence, both teachers' guides communicate from a standpoint that students have access to the general education curriculum. The materials also instruct teachers to encourage students to share their knowledge, experience, and perspectives on particular topics. These topics are addressed in stories that teachers work through with the students (using the "I do, we do, you do" literacy instructional technique). For example, one lesson

in the semester 1 guide includes a story about a boy who is practicing writing letters and an old man who is praising the boy for doing so. Teachers are instructed to ask students about who at home encourages them to learn and how they feel when they are being praised. Another lesson in the semester 2 guide includes a story about two children playing, one child fell and hurt himself and the other helped him. Teachers are instructed to ask students how they like to spend time with their friends and why that is important to them.

The guides would benefit from providing strategies for teachers to apply the newly learned literacy instructions in such a way that builds on student strength in a consistent manner. For example, the guide could instruct teachers to identify and document students' strengths and abilities (in addition to students' knowledge, experiences, and perspectives) and infuse this information into lessons in order to increase students' success.

Diverse student needs

A strength of both teachers' guides is the use of "inclusion tips" for instructing teachers on how to accommodate students with learning, vision, and hearing difficulties (e.g., teachers asking learners with vision impairments to sit in the first row so they can see, teachers speaking clearly and loudly so that children with hearing impairments can hear, and teachers using sentence and word cards with children with these disabilities). It should be noted, however, that the frequency of these tips decreases in semester 2. Additionally, the instructional strategies used throughout the materials (such as the use of sign/signing in semester 1 and the use of visuals, objects, and gestures in both semesters 1 and 2) create access points and opportunities for engagement for all students, including struggling learners and students with disabilities.

Both teachers' guides incorporate "inclusion tips" throughout the material that are consistent with UDL principles. However, these tips would benefit from a review in order to acknowledge and provide accommodations for students with a wider range of sensory or intellectual experiences and ensure consistency in the use of these tips across teacher materials and classroom instruction.

Positive behavioral support

There was no mention of PBS in either teachers' guide. Considering PBS in developing teachers' guide materials is important as it helps teachers to better understand behavior as a form of communication and to view behavior from a strength-based perspective. Acknowledging that PBS is an emerging approach in Cambodian primary education (Persson & Leng, 2017), there are simple ways in which the teachers' guides could begin to incorporate PBS into classroom instruction. For example, the guides could instruct teachers to specifically praise or "call out" student behavior that is contextually appropriate with a positive statement (e.g., "Thank you for participating respectfully"), thereby communicating what is considered desired behavior to all students.

Contextual suitability

The introduction to the grade 1 teacher material states that the literacy instructional content aligns with the general education curriculum. Project reports indicate that ACR-Cambodia used a collaborative approach to developing and revising these teachers' guides, including consultations with MoEYS (PED, DCD, and TTD) and NGO partners, school visits, and teacher and literacy coach feedback as well as reflections with teachers after the teacher training workshops. This approach may have helped ensure the content of the guides reflects the realities and needs of the teachers, which is a strength of the project. As mentioned in the section on gender (see below), the imagery of people and animals in natural settings included in the semester 1 guide demonstrates contextual suitability of the material.

However, both teachers' guides would benefit from specifically referencing a connection to Cambodia's 2018 Inclusive Education Policy[54] as well as international laws that support inclusive education (such as Article 24 of the CRPD). Incorporating imagery of both men and women, imagery of people with a range of disabilities, and imagery of minority groups found within Cambodia would contribute to the materials acknowledging national diversity.

Gender

The semester 1 teachers' guide is a good example of equitable gender representation in the imagery used throughout the material. This includes imagery of persons demonstrating signs and imagery of small groups of persons and animals in natural settings. The semester 2 teachers' guide does not include any imagery.[55] Although imagery is not a core focus of teachers' guides, where images are used, they would benefit from consistent equity, not only in gender but also disability representation.

Ensuring dignity

There was no evidence of ensuring student dignity in either guide. The teachers' guides would benefit from including specific language that stresses the importance of respectful communication and dignity with and about struggling learners and students with disabilities to promote a climate of mutual respect and equality for all students.

Access and availability

The widespread distribution of the teachers' guides and supplemental materials in hard copy format to a large cohort of grade 1 teachers at the teacher training workshops is a strength of the project. It was unclear, however, if the materials were available in alternative formats. Providing the guides in a variety of formats and creating a central, online accessible repository of teacher TLMs, including the guides, is an area for improvement.

Exhibit 55. Rubric A – Grade 2, Semesters 1 and 2: Overall Scoring

[54] The passing of the Inclusive Education Policy in 2018 may have overlapped with the period within which the teachers' guides were developed. Thus, ACR-Cambodia may not have had the option to reference this policy in this TLM material.

[55] Both guides include a list of student TLMs with images of these materials. These images were not included in the assessment of the guides as that is specifically covered in the review of student TLMs.

Grade 2		
Evaluation Domain	**Semester 1 score**	**Semester 2 score**
Presume competence	2	1
Build on strengths	2	2
Diverse student needs	2	1
Positive behavioral support	0	0
Contextual suitability	2	2
Gender	0	0
Ensuring dignity	0	0
Access and availability	2	2

Presume competence

The teachers' guides were written in such a way that assumes struggling learners and students with disabilities have access to the formal education system and provides some strategies for teachers and school leaders to enable access to the general education curriculum. For example, the semester 1 teachers' guide utilizes "inclusion tips" that instruct teachers on how to accommodate students with learning, vision, and hearing difficulties. These tips are consistent with UDL principles.

Continuing the use of inclusion tips in the semester 2 teachers' guide may have helped to ensure consistency in incorporating inclusive education principles into classroom instruction across grade levels. Additionally, the guides would benefit from incorporating specific scripted language about presuming competence, such that the messaging that teachers must assume all children can and want to learn is clearly reinforced throughout (Jorgensen, McSheehan, & Sonnenmeier, 2007).

Build on strength

As mentioned in the section on presume competence, both teachers' guides work from a framework of access to the general education curriculum. They also incorporate activities into classroom instruction that ask students to demonstrate their knowledge and share their perspectives and experiences. Specifically, the guides instruct teachers to engage students in a conversation and exchange after reading a story as part of the literacy instructional routines. For example, in lesson 56 in the semester 2 guide, students read a story about rice fields. Teachers are instructed to ask students about what rice fields look like during the dry season, if the students prefer rice fields in the dry or rainy season and why, and if they have seen anything other than rice being planted in rice fields.

The guides would benefit from providing strategies for teachers to apply the newly learned literacy instructions in such a way that builds on student strength in a consistent manner. For example, the guides could instruct teachers to identify and document students' strengths and abilities (in addition to students' knowledge, perspectives, and experiences) and infuse this information into lessons in order to increase students' success.

Diverse student needs

A strength of the semester 1 teachers' guide is the use of "inclusion tips" for instructing teachers on how to accommodate students with learning, vision, and hearing difficulties (e.g., teachers asking learners with vision impairments to sit in the first row so they can see, teachers speaking clearly and loudly so that children with hearing impairments can hear, and teachers using word or sentence cards with children with these disabilities). IDP could not, however, find any inclusion tips in the sample lessons that were reviewed from the semester 2 teachers' guide. Additionally, the instructional techniques used throughout both teachers' guides (such as the use of visuals, objects, and gestures) create access points and opportunities for engagement for all students, including struggling learners and students with disabilities.

The inclusion tips would benefit from a review in order to acknowledge and provide accommodations for students with a wider range of sensory or intellectual experiences and ensure consistency in the use of these tips across teacher materials and classroom instruction.

Positive behavioral support

There was no mention of PBS in either teachers' guide. Considering PBS in developing teacher materials is important as it helps teachers to better understand behavior as a form of communication and to view behavior from a strength-based perspective. Acknowledging that PBS is an emerging approach in Cambodian primary education (Persson & Leng, 2017), there are simple ways in which the teachers' guides could begin to incorporate PBS into classroom instruction. For example, the guides could instruct teachers to specifically praise or "call out" student behavior that is contextually appropriate with a positive statement (e.g., "Thank you for participating respectfully"), thereby communicating what is considered desired behavior to all students.

Contextual suitability

The introduction to the grade 2 teacher materials states that the literacy instructional content aligns with the general education curriculum and with national and international research in EGR instruction. Project reports indicate that ACR-Cambodia used a collaborative approach to developing and revising these teachers' guides, including consultations with MoEYS and NGO partners, school visits, and teacher and literacy coach feedback as well as reflections with teachers after the teacher training workshops. This approach may have helped ensure the content of the guides reflect the realities and needs of the teachers, which can be considered a strength of the project.

Both teachers' guides would benefit from specifically referencing the connection to Cambodia's 2018 Inclusive Education Policy as well as international laws that support inclusive education (such as Article 24 of the CRPD). Incorporating imagery of both men and women, imagery of people with a range of disabilities, and imagery of minority groups found within Cambodia would contribute to the material acknowledging national diversity.

Gender

Neither teachers' guide include any imagery. Although imagery is not a core focus of teachers' guides, where images are used, they would benefit from consistent equity in gender and disability representation.

Ensuring dignity

There was no evidence of ensuring student dignity in either guide. The teachers' guides would benefit from including specific language that stresses the importance of respectful communication and dignity with and about struggling learners and students with disabilities to promote a climate of mutual respect and equality for all students.

Access and availability

The widespread distribution of the teachers' guide and supplemental materials in hard copy format to a large cohort of grade 1 teachers at the teacher training workshops is a strength. It was unclear, however, if the materials were available in alternative formats. Providing the guides in a variety of formats and creating a central, online accessible repository of teacher TLMs, including the guides, is an area for improvement.

Exhibit 56. Rubric B – Preschool: Overall Scoring

Preschool	
Evaluation Domain	**Score**
Phonemic awareness	3
Phonics and word recognition	3
Vocabulary	3
Reading fluency	N/A
Reading comprehension	N/A
Oral language development	3
Writing	3
Learning activity design	3
Supporting materials for teachers	3
Assessment materials	2
Diverse student needs	3
Second language techniques	N/A

Phonemic awareness

Significant attention is given to phonemic awareness in the preschool teachers' guide, using a diverse variety of developmentally appropriate activities. This includes systematically organized activities that practice recognizing sounds and expressing understanding through "you do" practice. Inclusion tips help to ensure students can hear and see the teacher and for teachers to slow down and repeat content for struggling learners. Furthermore, UDL strategies are amply represented, including regularly linking sounds to concrete objects, using yes/no signs to show understanding, phonics games, and songs related to letter sounds.

Phonics and word recognition

Phonics activities are well-embedded throughout the lessons and appear developmentally appropriate to pre-literate learners. This includes attention to letter recognition and the identification of letters in words written by teachers. Practice is systematic and explicit, with UDL strategies including a “same or different” game, the use of movement to show understanding, and inclusion tips, such as writing letters in large print on the chalkboard.

Vocabulary

The lesson plans offer ample vocabulary practice. Practice examples include encouraging teachers to explain difficult words regularly as they arise, to act out the meaning of words and to encourage learners to act out the meaning as well (a UDL strategy), to use words in a sentence, and to test student understanding through “you do” and individual practice.

Reading fluency

Fluency is not a developmentally appropriate goal for pre-literate learners, but teachers are supported to read stories with fluency and expression, and students play games that help build foundations for fluency.

Reading comprehension

Reading comprehension is not a focal goal of preschool learning. However, oral comprehension is extremely strongly embedded in the preschool lesson plans and is explained further in the next section.

Oral language development

Oral language development—and in particular oral comprehension—is a core strength of this guide. For example, there is structured pre-reading, during reading, and post-reading comprehension practice which is diverse and engaging. Strong UDL strategies include using images to make predictions, connecting content to personal experience, and acting out meanings and role-plays for stories by both teachers and learners. The “true/false” activity is exceptional in that it promotes movement and inclusion of all learners' perspectives instead of the most vocal few—a point that is explicitly noted in the guide. The guide also offers clear explanation of how various comprehension activities can support learner development (both psychomotor and cognitive) and can serve as a form of informal assessment. There is also an explanation about how acting out story components supports students with hearing or learning difficulties. The introduction of additional oral comprehension activities later in the guide is a strength in that it develops teacher skills but also offers learners diverse and engaging ways to interact with story content.

Writing

Motor skill development features heavily as a strategy to support pre-literate learners’ writing development. This includes drawing the shapes of letters in the air, with fingers on the table, or in flexible ways according to the classroom environment. Inclusive strategies are present in the guide: ensuring teachers stand to the side of the chalkboard to allow all learners to see what is written, repeating practice, and ensuring the students can hear and see the teacher clearly. An additional UDL strategy is linking images to the letter being written.

Learning activity design

Learning activities are designed with systematic and scaffolded instructional strategies, which are explicitly inclusive of children with difficulty learning and children with disabilities. The activities are also developmentally appropriate (short in duration, lots of movement and games) and engaging for young children. There is a strong use of "I do, we do, you do" and a particularly strong focus on interaction and student practice using "you do."

Supporting materials for teachers

The teachers' guide is of high quality, and the lesson plans make frequent reference to letter cards, word cards, story books, and story posters that depict images found in the storybooks.

Assessment materials

The guide offers grade-appropriate guidance for assessing student understanding and regularly embeds informal assessment strategies throughout lessons. For example, pre-reading activities are used to assess learners' prior knowledge, with frequent question-and-answer opportunities for learners to show their understanding. There is, however, limited guidance to teachers on how to check for understanding among children with disabilities. Additionally, there is limited guidance to teachers on how to use the results of the informal assessments to modify instruction in any way, such as offering differentiated approaches to struggling learners.

Consideration for diverse student needs

UDL principles are extremely well-embedded in the lessons, with consistent opportunities for movement, games, songs, images, and other engagement strategies. Encouraging teachers to act out the meaning of words and concepts through sign, gesture, and movement is an asset. Students are also able to express understanding through writing, gestures, and singing. Inclusion tips address students with hearing, vision, or learning difficulties by encouraging the participation of such students during storytelling.

Although the presence of inclusion tips is an asset, it would be helpful to make more frequent mention of strategies to support struggling learners, with particular attention to supporting students with vision challenges. Additionally, there is no explicit mention of preferential seating for students with specific needs or the way in which collaboration with peers or the use of assistive devices (such as magnifiers) may accommodate the learning needs of children with disabilities. Finally, although lessons provide various opportunities for students to express their knowledge, there is a missed opportunity in allowing students to choose at any given time how they showed their understanding.

Second language techniques

Evidence of strategies to support second language learners is not evident in the review of current materials. This may be linked to the knowledge that students participating in the specific districts supported by ACR are unlikely to be second language learners. However, such considerations may need to be considered if the guide is expanded to other provinces.

Exhibit 57. Rubric B – Grade 1, Semesters 1 and 2: Overall Scoring

Grade 1		
Evaluation Domain	**Semester 1 score**	**Semester 2 score**
Phonemic awareness	3	2
Phonics and word recognition	3	2
Vocabulary	3	3
Reading fluency	3	2
Reading comprehension	3	3
Oral language development	2	2
Writing	3	3
Learning activity design	3	2
Supporting materials for teachers	3	3
Assessment materials	2	3
Diverse student needs	3	2
Second language techniques	N/A	N/A

Phonemic awareness

The lessons incorporate systematic and frequent practice of phonological awareness skills with grade 1 learners. The gradual release of responsibility methodology helps to scaffold instruction. The lessons also incorporate the use of games, flashcards with images, and finger use to count syllable sounds, all of which promote inclusive education principles in that they promote learner engagement, multiple means of representation, and diverse practice opportunities. Other principles supporting inclusion are gradual increase in difficulty of words practiced, individualized support to learners as needed, and the use of signs and tangible objects to represent the concepts.

However, the second semester lesson plans focus more on *teacher* strategies for explaining the content and less on promoting *student* opportunities for practice. For example, while the gradual release of responsibility method is used consistently, there is little elaboration or variation on the way in which the "you do" portion of the activities is presented. Aside from making sure students can hear and see the teacher, there is limited inclusive consideration compared to the first semester.

Phonics

The lessons offer a multitude of methods to present new content related to phonics. This includes presenting new letters on the chalkboard; writing with multiple colors of chalk; using letter cards, images, and signs; and pointing in the student book. Individual support to learners is also encouraged in the lesson guides. The introduction to the first semester guide also references the existence of a strong evidence base in other countries and with other Cambodian projects, while also acknowledging the need for teachers to respond to individual learner needs.

The second semester lesson plans offer slightly fewer details about diverse opportunities for presenting phonics content, as it may be assumed that teachers have developed some mastery from the scripting in the first semester. Additionally, although multiple colors of chalk is an

inclusive strategy, it may be worth pointing out the importance of maintaining visual contrast for learners with difficulty seeing, for example, by reminding teachers to use a light color chalk against a dark colored chalkboard.

Vocabulary

There is ample opportunity to practice vocabulary throughout each lesson. The scripts also describe to teachers the diverse ways to come up with new words, including giving examples, descriptions, tangible objects, and pictures. Teachers are also encouraged to use sign language as a means of representing vocabulary and encouraging student engagement. Another strength is the use of student examples of difficult vocabulary words, which the teacher can then write on the board.

Vocabulary practice is fairly repetitive in nature and could benefit from more cues to act out new vocabulary words instead of only speaking about them. This is a strategy consistent with UDL's multiple means of representation and multiple means of action and expression. Additionally, the suggestion that teachers represent vocabulary words with signs is subject to substantial limitations based on teachers' sign language knowledge, although this is a concern that is likely to be encountered for most teachers who have not had extensive exposure to sign language.

Reading fluency

The first semester's materials appropriately focus less on fluency than the second semester, given the need to develop foundational skills in the first grade. Students are encouraged to practice reading in pairs, which is likely to promote engagement. The use of sentence and word cards helps to ensure students have access to engaging learning materials. There is regular and structured practice of reading short sentences and stories and good use of paired/round robin reading later in the year.

Statements such as "the teacher calls out the slow learners to read on the board" (translated) are positive because they engage all learners and not just high achievers, but these statements may benefit from language that explains to teachers how to engage struggling learners in a way that does not embarrass them or draw attention to their challenges. For example, teachers could be encouraged to provide small group support to "slow" (struggling) learners instead of whole-group support, provide praise where appropriate, and use learner challenges as an opportunity to teach others with similar difficulties.

Comprehension

Overall, emphasis and instruction on reading comprehension is a strength of the materials reviewed. The second semester begins to embed more frequent comprehension activities than the first, which follows a logical developmental sequence. A strong variety of inclusive comprehension strategies are mentioned in lessons, including use of images to practice comprehension, homework assignments that ask students to draw pictures related to the meaning of a sentence, wait time, linkage to personal experience, and think-pair-share (although not titled as such). Practice is also frequent and well-scaffolded.

The first semester's lessons do not feature comprehension activities as much, which may be linked to a desire to develop foundational skills in the first grade. Where such practice is present in the first semester, it appears to be lacking in diverse strategies for teachers to present content and diverse strategies for students to demonstrate understanding. For example, implementing the "true/false" game from the preschool lessons and encouraging students to use gestures if they are less comfortable responding verbally are both strategies that can include more learners.

Oral language development

There are structured opportunities for students to speak, make predictions, and answer comprehension questions as well as opportunities for students to speak in pairs and connect their personal experiences to lessons. However, students' oral language practice is not feature heavily in either semester (acknowledging there is more explicit practice in the second semester than the first). There is no mention of any particular support for students with less confidence or ability in speaking.

Writing

Writing practice is systematic and frequent in lessons and ample time is given to dictation, calligraphy, and writing exercises. The use of drawing in the air, practice with partners, and small writing boards encourage practice for diverse learning styles. Individualized support is also recommended in guides, where teachers check and correct student writing.

Well-designed learning activities

Lesson plans are highly structured, well-scaffolded with gradual release of responsibility methodology, and explicit. They are engaging and interactive, particularly in the first semester, and progressively increase in difficulty for learners. However, semester 2 is not as engaging as semester 1, with fewer games and songs (i.e., fewer opportunities for student engagement) and is much more repetitive than semester 1.

Supporting materials for teachers

Lesson plans reference a highly diverse suite of essential and supplementary materials for teachers to use in promoting student practice and engagement. This includes flashcards, mobile letters, supplemental readers, free online readers, and games.

Assessment materials

Lesson plans provide guidance on the ways that teachers can check for understanding and support struggling learners, with a particular focus on repetition and additional practice.
It is unclear from the guides alone, however, what specific strategies teachers should consider in modifying their instructional approaches based on the findings from their assessments.

Consideration for diverse student needs

The lesson plans demonstrate strong evidence of UDL principles. This includes multiple means of engagement through games, linkages to personal experience, and sign language practice. Multiple means of representation are encouraged through the use of supplemental materials, images, concrete objects, acting out concepts, and frequent practice in the student book itself.

Multiple means of action and expression are also encouraged through pointing and the use of movement, drawing, reading aloud, or reading in pairs. The inclusion tips and reminders for frequent practice and individualized support also promote inclusive practice. In effect, the guidance provided to teachers helps ensure that potential difficulties for some students are mitigated by providing clarity and support for all students.

While UDL principles are generally well-represented in lesson plans, there are comparatively fewer opportunities for multiple means of action and expression in relation to other inclusive components. For example, there is no mention of allowing students a *choice* in how they express themselves in lessons; throughout the various lessons, multiple strategies may be used, but at a single point in time, students are not encouraged to choose how they show their understanding. This may be linked to the project's consideration that teachers need to focus on developing their own foundational teaching skills prior to offering opportunities for differentiation. Additionally, the materials are noticeably absent of strategies to encourage peer support for struggling learners, although the guide once mentions "let the students sitting near the students with difficulty help them." Specific examples, such as students with difficulty hearing could be permitted to receive support from a partner who could repeat the information as needed.

Second language teaching techniques

Evidence of strategies to support second language learners is not evident in the review of current materials. This may be linked to the knowledge that students participating in the specific districts supported by ACR are unlikely to be second language learners. However, such considerations may need to be considered if the guide is expanded to other provinces.

Exhibit 58. Rubric B – Grade 2, Semesters 1 and 2: Overall Scoring

Grade 1		
Evaluation Domain	**Semester 1 score**	**Semester 2 score**
Phonemic awareness	2	N/A
Phonics and word recognition	2	2
Vocabulary	2	2
Reading fluency	3	3
Reading comprehension	3	3
Oral language development	1	2
Writing	3	3
Learning activity design	2	3
Supporting materials for teachers	3	3
Assessment materials	3	2
Diverse student needs	2	2
Second language techniques	N/A	N/A

Phonemic awareness

The lessons incorporate systematic and frequent practice of phonological awareness skills with grade 2 learners in semester 1. The gradual release of responsibility methodology helps to scaffold instruction. The lessons also encourage multiple strategies to make linkages to new

sounds, descriptions of words, acting out words that make the same sound, and the use of pictures or concrete objects. Additionally, the ‘thumbs up / down” game helps to promote learner engagement and may allow teachers to check for understanding.

The second semester teachers’ guide, however, affords very little attention to phonemic awareness, which may be linked to an advancement to whole word reading. Without knowing more about the rationale for this reduction in focus, it is difficult to evaluate whether more attention should have been paid in the second semester. Aside from making sure students can hear and see the teacher, there is little explicit inclusion and almost no variation in the activities over time.

Phonics

The lesson plans are systematic and explicit in nature, ensuring students have regular opportunities to practice phonics. The use of word cards multiple times per week, encouragement of silent reading practice of difficult words, and practice in pairs are all inclusive strategies. It is also apparent that significant thought is afforded to the gradual introduction of complex Khmer linguistic concepts so that learners are not overwhelmed by many new ideas at once.

The phonics activities, however, are noticeably lacking in diversity in terms of both teacher modeling and student practice as compared to the grade 1 materials. This may be built upon an assumption that teachers have embedded these strategies after practicing them in grade 1, but this may not take place in practice.

Vocabulary

There is ample opportunity to practice vocabulary throughout each lesson, and the lesson plans are systematic, explicit, and encourage students to produce specific examples of their own. Opportunities for “turn and talk” discussion with peers are also a strength. However, as with phonics, the vocabulary activities are noticeably lacking in diversity in terms of both teacher modeling and student practice relative to the grade 1 materials. Little to no mention of role play or the use of concrete objects to develop vocabulary is observed, which are strategies that can help to support diverse learner needs.

Reading fluency

Lessons regularly emphasize the need for frequent student reading practice, which is an area of strength. The lesson plans also encourage teachers to observe students practicing and to offer help and additional practice to those having difficulty. Role play with reading decodable texts is also included in the plans, allowing students to engage with content and concretize stories. Teachers are encouraged to utilize paired and round robin reading as well as to facilitate conversation about the texts, wherein students can connect content to personal experience. As students become more fluent readers, it is apparent that semester 2 offers more diverse opportunities for reading practice, including the use of songs and dialogues as texts that students can practice reading and acting out.

Comprehension

Reading comprehension is supported in a variety of inclusive ways in lessons. Frequent comprehension questions allow students to test their understanding throughout lessons, with regular linkage of questions to personal experience. Allowing additional time, repeating the question for students having difficulty, and using images to make predictions are all strong inclusive strategies. The homework assignment to draw pictures related to sentences also promotes engagement and expression of understanding. Written exercises such as cloze exercises in the student book also help to demonstrate understanding. In summary, comprehension strategies were a strength area in lessons.

Oral language development

As mentioned above, reading activities allow for some student conversation to take place during lessons. Such opportunities were especially evident in semester 2. The use of images to promote discussion and link to personal experience are also good inclusive strategies. There is no mention, however, of support for students with less confidence/ability in speaking who may benefit from specific strategies to encourage their participation in smaller groups or in alternative ways. Aside from discussion that occurs during reading comprehension activities, oral language development is not a strong focus of lesson plans.

Writing

Significant time during lessons is given for writing practice using tablets, books, and homework. Teachers are instructed to observe student responses and provide feedback. There is regular monitoring of “I do, we do, you do” with regard to writing, and there are good reminders for teachers to repeat the phrases and give additional time. Writing sentences using pictures as a prompt is an inclusive strategy.

Well-designed learning activities

Materials are well-designed to expose learners to progressively increasing levels of challenge. Scaffolding is also consistent in lessons as is the structure of the five components of literacy instruction. There is ample time for reading and practice, and lessons are consistently structured. The grade 2 lesson plans, however, demonstrate fewer strategies to support students in diverse ways as compared to the grade 1 materials. Within grade 2, the second semester contains much more engaging activities than the first.

Supporting materials for teachers

The lesson plans reference a highly diverse suite of essential and supplementary materials for teachers to use in promoting student practice and engagement. This includes flashcards, individual chalkboards, and supplemental readers.

Assessment materials

There are good instructions in the semester 1 inclusion tips about monitoring student progress, providing support and correction where necessary, and facilitating extra practice. Teachers are also instructed to check student writing. In semester 2, there is implicit monitoring of students through paired reading, homework, and writing, and there are some suggestions in the lesson

plans to observe students reading and provide support. The guidance on checking for student understanding in the first semester, however, does not appear to be repeated with the same frequency in the second semester.

Consideration for diverse student needs

Each semester's teachers' guide offers different strengths. Specifically, semester 1 has more inclusion tips than semester 2, but semester 2 more strongly represents UDL principles in activities than does semester 1. For example, semester 2 offers students opportunities to use songs, images, and acting out concepts to develop their literacy skills as well as ample practice in pairs and individually.

The number of inclusion tips in grade 2 (especially in semester 2) is noticeably fewer and less diverse than grade 1, which may be detrimental for students with identified hearing or vision difficulty. This may be due to an assumption that teachers will remember what they practiced in grade 1, but this may be a risk that could fail to translate in practice, especially if grade 2 teachers have not had exposure to grade 1 materials due to not having taught that grade. Furthermore, many semester 1 lesson plans fall short of demonstrating an integrated UDL approach. They do not appear to overtly recognize the diversity of student learning styles and the ways in which diverse activities can support learning. The semester 1 lessons would benefit from more engagement strategies such as songs and activities involving movement, peer support to struggling learners, and alternative means of action and expression.

Second language teaching techniques

Evidence of strategies to support second language learners is not evident in the review of current materials. This may be linked to the knowledge that students participating in the specific districts supported by ACR are unlikely to be second language learners. However, such considerations may need to be considered if the guide is expanded to other provinces.

Annex F. EGRA Rubrics

Evidence Base for Rubric Evaluation

Most USAID reading programs use the EGRA to measure student learning outcomes. Typically, EGRA data help determine whether the program intervention has had a measurable impact on student reading performance. Often, the EGRA is administered to a sample of students within program beneficiary schools (treatment group) and a sample of similar students within schools outside of the program (control group). Two of the USAID inclusive education activities evaluated under MCSIE are using adapted versions of EGRA to measure learning outcomes for students with disabilities (REFAM and Reading for All-Nepal), and one is field testing adapted EGRAs for potential future use in outcome measurement (ACR-Cambodia).

Using the guidance from USAID's EGRA Toolkit (RTI International, 2015b) and drawing from direct experience managing and conducting EGRAs, IDP researchers developed a rubric for evaluating the following EGRA content areas:

1. EGRA sample design
2. Instruments
3. Assessor training
4. Pilot testing
5. Data collection
6. Data prep and analysis
7. Reporting

The evaluation criteria within these seven content areas are based on the elements that should be in place during a "standard" EGRA process, many of which are also relevant for an EGRA that is adapted for children with disabilities. Formal standards do not yet exist for the specific adaptations made to EGRA for students with disabilities because limited research exists to determine best practices. An important caveat is that some elements of a typical EGRA were likely absent because the ACR-Cambodia adapted EGRAs were small-scale pilots or field tests rather than full-scale representative measures of student achievement.

Therefore, USAID activities were not evaluated (scored) on the modifications and accommodations that ACR-Cambodia implemented during assessments. Unlike other rubrics in this report that separated secondary and primary source data, IDP used a single rating scale in this instance due to the comparably narrow nature of this analysis and the way in which primary source interviews helped to answer some of the rubric questions that secondary source data alone could not provide.

Accommodations and Modifications

The following exhibit summarizes the modifications and accommodations made for the DHH EGRA.

Exhibit 59. ACR-Cambodia Braille and DHH EGRA Accommodations and Modifications

Subtask	Braille adaptation	DHH adaptation
Expressive vocabulary	No change from standard EGRA	Food and animal examples provided
Listening/CSL comprehension	No change from standard EGRA	Passage and comprehension questions in CSL provided on tablet instead of the assessors reading orally
Letter identification—consonant	Prompt time extended from 3 seconds to 5 seconds Letters presented in list instead of grid	Prompt time extended from 3 seconds to 5 seconds
Letter identification—vowels	Prompt time extended from 3 seconds to 5 seconds Letters presented in list instead of grid	Prompt time extended from 3 seconds to 5 seconds
Letter identification—advanced letters	Prompt time extended from 3 seconds to 5 seconds Subtask time extended from 1 minute to 3 minutes Letters presented in list instead of grid	Prompt time extended from 3 seconds to 5 seconds Subtask time extended from 1 minute to 3 minutes
Familiar words	Prompt time extended from 3 seconds to 5 seconds Subtask time extended from 1 minute to 3 minutes Words presented in list instead of grid	Subtask time extended from 1 minute to 3 minutes Number of words reduced from 50 to 20 Words changed to match words in the CSL vocabulary subtask
Reading comprehension	Prompt time extended from 3 seconds to 5 seconds Subtask time extended from 3 minutes to 5 minutes	Not included
CSL vocabulary	N/A	Unique subtask for DHH

The following summary provides an analysis of each of the seven evaluative domains examined through the EGRA rubric.

Exhibit 60. EGRA Sample Design

Standard	Score

Population of interest is explicitly defined and documented	3
Sampling weights are calculated	N/A
Complex survey analysis is planned	3
Statistician and stats software are prepared and available	3
Inferential analysis is conducted	N/A

Summary

To field test the adapted EGRA instruments, ACR-Cambodia used a convenience sample design by sourcing a small sample population from the special schools operating within Cambodia. Due to the limited number of students available, the program selected schools with the largest number of students in the target grades and then combined grades to increase the sample size to pilot the tools. EGRA teams visited two schools for students who are blind or have low vision, where there were a total of 39 students enrolled in preschool through grade 2. For the DHH EGRA, teams visited three schools where there was a total of 140 students who are deaf or hard of hearing enrolled in preschool through grade 2. For the pilot, 21 students participated in the braille EGRA, and 75 students participated in the DHH EGRA.

The adapted instruments are designed for students who are blind or who are deaf or hard of hearing, but reporting does not articulate the specific criteria for inclusion or exclusion of students. Project staff clarified during an interview that the field test samples only included students who are blind and learning braille and students who are deaf or hard of hearing and learning CSL. At some schools, all eligible learners within the targeted grades were assessed. At schools where the field team needed to draw a sample, the team worked with a teacher to select from the school roster. No particular sampling protocol was used.

Additionally, due to the small sample size, the program could not conduct a psychometric analysis on the EGRA data to establish test validity and reliability. The EGRA technical report states that the instruments will undergo more rigorous testing in later stages of the ACR-Cambodia activity but does not clarify what types of tests or tryouts will be conducted. Discussions between IDP and ACR-Cambodia technical staff indicated that the COVID pandemic may preclude additional instrument revisions and testing.

Exhibit 61. Instrument Adaptation Evaluation

Standard	Score
Language analysis is done in advance (either directly by IP, or by previous/other IP and analysis is referenced by current IP)	3
Sufficient time is provided	3
Necessary experts facilitate	2
Necessary participants are present	2
Necessary materials are provided	2
Instructions within instrument are clear, consistent, and child-friendly	Unknown (due to language barrier)
Modifications or accommodations are made for students who are blind/low vision	Yes

Modifications or accommodations are made for students who are deaf/hard of hearing	Yes
Instrument contains minimum/core content	3
Instruments are field tested[56]	3
Instrument security is maintained	3

Summary

Before adapting the instruments for students who are blind or who are deaf or hard of hearing, ACR-Cambodia technical staff collaborated with technical experts from various MoEYS departments to form a technical working group. Program staff also consulted with experts who have previously adapted EGRAs for children with disabilities in Kenya, Malawi, Morocco, and the Philippines. This information helped inform two different multi-day adaptation workshops, which involved multiple stakeholders including classroom teachers from special schools and directors from SED. One workshop focused on adapting the EGRA for use with students who are blind. The other workshop focused on adapting the EGRA for students who are deaf or hard of hearing.

The program and the technical working group synthesized existing early literacy assessment tools into two instruments, one for each specific disability group. In order to assess preschool-aged learners, ACR-Cambodia's standard EGRA (used for typical learners) incorporates subtasks from the International Development and Early Learning Assessment (IDELA) designed by Save the Children for preschool students. The resulting tool was designed to assess a wider range of skills than most EGRAs, which typically do not include learners in early childhood education. The two adapted EGRAs expanded the range of skills typically assessed by EGRA. In Cambodia, therefore, students in grades 1 and 2 were assessed using all subtasks (including those taken from the preschool instrument), while preschool students were assessed only with the subtasks that corresponded with their curriculum.

During the adaptation workshops, the technical working group reviewed each subtask from ACR-Cambodia's standard EGRA and discussed possible adaptations. As presented in the exhibit, above, modifications to both adapted EGRAs centered around extended time and information presentation in different formats (list versus grid, videos versus spoken and signed language).

The guidance for ensuring that grade-appropriate language is used in a given EGRA includes listing words used in grade-level teaching and learning materials and calculating letter frequencies, word length, and frequency of word appearance. Ideally, word lists should include 5,000 words or more (RTI International, 2015b). The technical report for ACR-Cambodia's adapted EGRA did not describe how words were selected for the braille EGRA. For the DHH EGRA, the report indicates that the number of words was reduced (from the number within ACR-Cambodia's standard EGRA), and deaf adults from the CSL committee chose words appropriate for students. The report included limited detail, but subsequent discussions with project staff indicated that the instruments were based off the standard EGRA, for which language analysis of teaching and learning materials was conducted. Furthermore, the participants who were

[56] The entire exercise was considered a field test.

classroom teachers were able to confirm appropriate vocabulary based on what should be familiar to students who are blind or deaf or hard of hearings. Thus, while project staff indicated they did not bring to the workshops copies of teaching and learning materials used with students who are blind or deaf or hard of hearing, those materials were thought to be closely aligned with materials used for sighted and hearing students, which were analyzed and used for developing the standard EGRA in Cambodia.

As there is limited research on braille and DHH EGRAs, informal pre-testing can be a useful component of the instrument development process, allowing experts and stakeholders to refine tools based on how they seem to work with children of the target population before using the tools to collect data in the field. The braille EGRA was not pre-tested with students during the workshop, while the adapted DHH EGRA had limited pre-testing with students in grade 1, grade 2, and one student from grade 4 who attended school where the adaptation workshop was taking place. This experience led to some further revisions during the workshop. The technical report does state that later refinement, particularly for the DHH EGRA, will be necessary but does not outline how refinement will occur. Discussions with ACR-Cambodia staff indicate that plans for further tool refinement and another round of field testing were halted due to the COVID pandemic.

Future efforts to adapt EGRAs for students with disabilities would benefit from directly including experts with specific experience in EGR and assessment for these populations. Program staff indicated that for the DHH EGRA in particular additional expertise related to assessing deaf children would have been helpful. Before the adaptation workshops, program staff consulted with international colleagues who had developed braille and DHH EGRAs, but the experience of the staff who facilitated the workshops was limited and, as mentioned above, there is little existing evidence for measuring literacy skills among students with disabilities.

Exhibit 62. Assessor Training Evaluation

Standard	Score
Sufficient numbers of assessors are recruited	3
Profile of assessors meets contextual and technical needs	3
Sufficient training time is provided	3
Workshop includes demonstration of each subtask	3
Workshop includes practice in pairs	3
Workshop includes practice visit(s) to a school	3
Assessor accuracy is measured	2
Final roster of assessors is selected based on pre-established criteria, including performance in formal accuracy measurements	2
Fieldwork supervisors are selected and qualified	3

Summary

In alignment with standard practices for training EGRA assessors, the program conducted two, four-day long assessor training workshops for the two adapted EGRAs. During the assessor training, one AAM was performed on tablets and used as a criterion for final assessor selection.

The technical report provided little detail about assessor training workshops. Discussion with project staff indicated that the trainers had some prior experience with EGRA and had participated (as observers) in ACR-Cambodia's standard EGRA assessor training to model the adapted EGRA training workshops accordingly. The workshops included demonstrations, practice in pairs, and a practice visit to a school.

The skillset required to administer the adapted EGRAs requires assessors skilled in reading braille or understanding CSL, which narrowed the number of individuals eligible to be assessors in Cambodia. Because of this, the number of assessors trained in administering the adapted EGRAs was limited. For the adapted EGRA tool field tests, a total of 10 assessors were trained, two assessors for the braille EGRA and eight for the DHH EGRA. Project staff reported the first group of assessors assigned to the DHH EGRA, who were assigned by MoEYS, were found to lack some of the necessary CSL skills and did not identify as deaf or hard of hearing themselves; therefore, additional assessors were recruited who are deaf. The original assessors remained part of the field team and were paired with the assessors who are deaf to support the process in schools.

Exhibit 63. Pilot Testing and Data Collection Evaluation

Standard	Score
Pilot data are used to inform revisions to instruments	Stalled due to COVID
Appropriate length of time is planned	3
Assessors are well-resourced for fieldwork	3
Assessors follow student sampling protocol	2
EGRA takes place in appropriate setting	2
Inter-rater reliability (IRR) is measured during fieldwork	0
Data are securely stored and/or uploaded to server regularly (in case of electronic data collection)	3
Data are checked and monitored regularly by statistician or assessment expert	3
Data are cleaned by statistician	3
Data are processed ahead of analysis	3
Appropriate data analysis is conducted by a statistician	3

Summary

It was not possible to conduct psychometric analyses to assess tool validity due to the small sample population. The program, however, measured internal consistency via Cronbach's alpha, with the braille EGRA measuring at 0.92 and the DHH EGRA measuring lower at 0.7.[57] The technical report describes the lower Cronbach's alpha on the DHH EGRA as likely being due to the tool measuring two separate constructs, CSL and Khmer reading, and recommends adding

[57] The EGRA Toolkit states the following about reliability testing: "For Cronbach's alpha or other measures of reliability, the higher the alpha coefficient or the simple correlation, the less susceptible the EGRA scores are to random daily changes in the condition of the test takers or of the testing environment. As such, a value of 0.7 or greater is seen as acceptable, although most EGRA applications tend to have alpha scores of 0.8 or higher" (p. 94).

more CSL subtasks as well as testing the tool with older children who have more advanced reading skills to better evaluate the tool's consistency and reliability. As indicated in the previous section, learning to read is a complex process for children who are deaf or hard of hearing and lack access to spoken language. Measuring their literacy skills is, in turn, complex and may necessitate a greater focus on assessing language ability than is usually included in a standard EGRA (Lederburg et al., 2019). Recognition of the need to continue improving and testing the DHH EGRA was also evident in interviews with program staff.

In alignment with standard EGRA practices, data were collected within one week of assessor training and completed over four days. With assistance and monitoring from the local program team, assessors utilized the Tangerine software to enter students' EGRA responses, and they uploaded completed assessment data to the program's server twice per day. The technical report describes several additional braille EGRAs that were mistakenly uploaded by assessors due to confusion about tablet function. To ensure this inaccurate data loading did not occur during the DHH EGRA field test, ACR-Cambodia assigned project staff to assist the assessors with uploading the data. The difficulty with uploading data stored in the tablets may indicate that insufficient time was allotted during assessor training to demonstrate and practice all aspects of the tablet. Statisticians at the RTI International home office received all data uploaded by the assessors.

Local assessors indicated challenges in locating a dedicated space to administer the adapted EGRAs within the special schools. Specifically, the braille EGRA occurred outside of a classroom and was interrupted every 45 minutes due to class breaks. While less than ideal, given potential sound interference and distractions for the students and assessors, it is presumed that these arrangements were the best available.

Exhibit 64. Data Preparation, Analysis, and Reporting Evaluation

Standard	Score
Data are cleaned by statistician	3
Data are processed ahead of analysis	3
Appropriate data analysis is conducted by a statistician	3
Report describes objective and limitations	3
Report describes descriptive and inferential analyses (if relevant)	3
Report provides visual depictions of score distributions	3
Report only includes appropriate comparisons	3
Annexes provide more detail	2

Summary

In alignment with standard EGRA reporting practices, ACR-Cambodia's technical report clearly describes the objective: to determine the adapted tools' appropriateness and usability. The report also clearly acknowledges that the small sample size was a significant limitation to the analysis that could be conducted and the conclusions drawn. Nevertheless, the report lacked detail related to the data preparation and analysis that was completed. Direct communication with the

statistician who was responsible for data cleaning, processing, and analysis confirmed that proper protocols were followed, but the report would be strengthened by more detail, particularly if there are differences that an analyst would encounter working with adapted EGRA data versus data from a standard EGRA.

The report presents data through narrative descriptions and in exhibits. Data on student grade and gender were collected, but, presumably due to small sample size, findings are not disaggregated by gender. The annexes included in the report provide additional information such as student questionnaire results, timelines for data collection, participant feedback, and copies of the tools but do not align with standard EGRA reporting practices, which call for detail related to methodology, data collection, and analysis. The small size of this adapted EGRA may explain some of these omissions, but future efforts to adapt EGRAs for students with disabilities would benefit from as much documentation as possible from those who have done similar work.

The outcome of the pilot study showed that the braille tool was responsive to the grades tested. One area of concern was the consonant names subtask, as preschoolers identified fewer than 1% of consonants correctly, on average. On the other end of the spectrum, 98% of grade 2 learners identified consonants correctly, which may mean that this subtask could be dropped from future grade 2 assessments. More testing with larger numbers of children will be needed to determine if the floor effect for preschoolers and ceiling effect for grade 2 learners will remain the same. Additionally, two braille letters were identified as confusing when read in isolation and two familiar words in braille were deemed difficult. More testing will help determine if these letters and words need to be changed in order to improve the assessment's validity.

As previously mentioned, the DHH assessment measured both language and reading outcomes. For language, receptive vocabulary assessment showed clear grade improvement. There were ceiling effects by grade 2, suggesting more difficult words should be added. Other measures of language were less successful. Expressive vocabulary was measured by having children generate food and animal words. The directions were not clear, and the children only generated a few. Floor effects were also evident in the sign language comprehension assessment (answering questions about a story that contained complex sentences).

On the DHH reading assessments, the letter-name assessments indicated children were acquiring alphabetic knowledge. However, this did not translate into reading achievement. The children recognized few words on the familiar word reading and reading fluency subtasks and could not answer the related comprehension questions. These latter tests showed floor effects did not increase by grade and were not correlated with overall test score. The passage reading and comprehension subtask was ultimately not included in the pilot, as informal pretesting showed these were too difficult.

Glossary

Access: The ability of all students to have equal opportunity in education, regardless of their disability.

Accessibility: Ensuring that persons with disabilities have access, on an equal basis with others, to the physical environment, to transportation, to information and communications, and to other facilities and services open or provided to the public, such as the educational system. These measures shall include the identification and elimination of obstacles and barriers to accessibility. Additionally, accessibility is defined by as the notion that all students should have an unobstructed opportunity to demonstrate their understanding on constructs being measured.

Accommodations: Necessary and appropriate modification and adaptations where needed in a particular case to ensure people with disabilities access education on an equal basis with others. Accommodation means that some aspect of a system—for example a document or facility—has been adapted or modified to meet the needs of a specific individual or group. Accommodations are patches or fixes applied retroactively to overcome barriers in the environment or system. Accommodation is not the same as accessibility. Whereas accessible systems are designed to be usable by as many people as possible, regardless of disability or assistive technology, accommodations are reactive and may not effectively address everyone's access requirements. While it is important to understand that there will always be a need for accommodation and remediation in inaccessible systems, concepts of accessibility and inclusive design reflect the social model of disability, in which systemic barriers are minimized for the good of all.

Availability: The available resources and materials in alternative formats that may be beneficial for students with disabilities, such as braille, large print, and digital textbooks.

Awareness raising: The process of informing and educating stakeholders on the areas related to the project scope including, but not limited to, general disability awareness, screening and identification, support and services for persons with disabilities, inclusive education, and early grade literacy with the intent to influence knowledge, attitudes, and practices.

Capacity building: Any processes or activities implemented by the project to aid stakeholders in obtaining or improving their skills, knowledge, and resources related to supporting inclusive education principles and practices.

Community of practice: A group of stakeholders who engage in ongoing interactions related to a shared interest.

Context: The program's contextual factors (e.g., policies; institutional, linguistic, and socio-economic factors; stakeholder technical and operational capacity) that affect users or deliverers of the program. Context is traditionally understood as factors that are external to and operate outside of a program's control but may influence the implementation of the program. Considering

the impact of context also increases understanding of how unforeseen and unplanned contingencies can affect program mechanisms, resources, and expected outcomes.

Contextual suitability: The extent to which contextual factors are considered in program design and planning, especially those related to local system and stakeholder technical and operational capacity.

Data quality assessment: A distinct phase within the data quality life cycle that is used to verify the source, quantity, and impact of any data items that breach pre-defined data quality rules. There are five aspects of data quality—validity, reliability, timeliness, precision, and integrity; IDP has added fairness and psychological testing to ensure issues related to inclusive practices are adequately represented in a data quality review.

Deaf education: A system that allows students who are deaf to access information and communicate freely with peers, teachers, and administrators in local sign language while learning the written language of the country.

Disability: IDP recognizes disability as a social construct that can best be defined through the social model of disability. This model aligns with the CRPD definition of disability, stating "persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others" (United Nations, 2006, Art. 2). The two key elements of this definition are impairments and the identification of barriers that may hinder full participation.

The social model of disability lacks specificity about the types of psycho-social, intellectual, or sensory impairments that are most often present with children in schools. To better identify these, IDP draws upon definitions in the United States Individuals with Disabilities Education Act (IDEA). This definitions states "a child with a disability means a child evaluated in accordance with §§300.304 through 300.311 as having an intellectual disability, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as ''emotional disturbance''), an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related service." Together, these definitions recognize the social model of disability and well as the full spectrum of individuals who may benefit from special education services.

Disabled Persons' Organizations (DPOs): Organizations in which persons with disabilities constitute a majority (over 51%) of the staff, board, and volunteers and where persons with disabilities are represented throughout the leadership of the organization.

Early Grade Reading Assessment (EGRA): A diagnostic instrument designed to quickly assess foundational skills for literacy acquisition of students in the early grades of primary school.

Adapted EGRA, in this report, refers to the modifications of diagnostic instruments to accommodate students with vision and hearing disabilities.

Effectiveness: The ability of the implementing partner to achieve stated goals or objectives, judged in terms of both output and initial impact. Put simply, effectiveness answers this question: Is the program achieving the goals and objectives it had intended to accomplish?

Identification: The process of applying a phased process using both screening and evaluation techniques to determine if a student would benefit from additional learning support or special education services. This process should be conducted by trained individuals within the classroom setting.

Inclusive education: A term that describes a learning environment wherein students with disabilities are educated in age-appropriate, local school classrooms with their peers without disabilities to the fullest extent possible. Inclusive education is not only about "placing" children with disabilities in general education schools; it also concerns education systems themselves. It requires an adaptation of the general education system to ensure education can be accessed by everyone. Specifically, inclusive education means general education systems respond to and support the needs of all children, rather than the creation of separate systems to serve some children. The road towards this kind of change is long, and thus, the suggested approach involves defining the goal of inclusion and finding a strategic pathway that leads toward meeting this goal. Processes and aims may shift as student demographics and teacher capabilities vary, but what is most important is a shared commitment toward the goal.

Note: The definition of inclusive education for learners who are deaf or hard of hearing differs from that of other learners. The World Federation of the Deaf (WFD) specifies that for education to be inclusive for learners who are deaf or hard of hearing, education must also take into consideration the cultural and linguistic identity of the deaf community. Students who are deaf or hard of hearing need to be educated in a sign language-rich environment where they can communicate with educators and peers in a shared language, such as CSL.

Inclusive education system: The policies, programs, and resources dedicated to ensuring children with disabilities are fully included in the general education system as defined by the CRPD. While Article 24 of CRPD proclaims the right to inclusive education for persons with disabilities as a human rights standard, states may choose how they will achieve this goal, considering local variations and institutional arrangements. The United Nations handbook on executing the CRPD states, "Each State must take measures to realize economic, social, and cultural rights progressively, using the greatest amount of available resources to do so. This obligation, commonly referred to as progressive realization, acknowledges that it often takes time to realize many of these rights fully, for example, when social-security or health-care systems must be created or improved" (United Nations, 2007, p. 19).

In-service training: Training or professional development activities that teachers participate in to enhance their knowledge, skills, and competence in their current teaching profession.

Integrated education: Placing children with disabilities in existing mainstream education without changing the system of education delivery. Integration involves placing a student with a disability in a regular class but without any individualized supports and with a teacher who is unwilling or unable to meet the learning, social, or disability support needs of the child. Many people mistakenly call this "inclusion" but unless the student receives the support needed, it is not. Note: in the case of Cambodia, integrated classes are used to refer to segregated special education classes delivered only for learners with disabilities in a mainstream school. They are typically composed of at least five learners with the same type of disability.

Least dangerous assumption: An inclusive approach to educational policy and pedagogy. It holds that in the absence of conclusive data, educational decisions should be based on assumptions that, if incorrect, will have the least dangerous effect on the student.

Monitoring, Evaluation, Learning (MEL) plan: Describes how the project intends to monitor implementation and measure progress.

Partnership: Formal or informal communities of practice, professional relationships, and working groups which project staff joined or established related to the project scope of work to aid in the implementation of project activities and capacity building.

Performance Indicator Tracking Table (PITT): Lists indicators at the sub-IR level with clear dates and targets for baseline data collection as well as data targets for subsequent years and how the data will be disaggregated.

Positive Behavior Support (PBS): A set of research-based strategies used to increase quality of life and decrease problem behavior by teaching new skills and making changes in a person's environment. An alternative to more punitive measures (i.e., punishment) taken to address a child's problem behavior.

Pre-service training: Training or professional development activities student teachers participate in to enhance their knowledge, skills, and competence in the teaching profession prior to undertaking any teaching position.

Presume competence: Belief that students with disabilities have the capacity to think, learn, and understand and that they should be exposed to all core subjects. This approach takes the assumption that students are inherently capable and need the right supports and systems to help them succeed.

Segregated education: When students with disabilities are educated in separate environments (classes or schools) designed for students with disabilities. Segregation clearest when students with disabilities attend a school only for students with disabilities, but it also happens when students are educated in separate classes in a regular school. These are sometimes called resource (or integrated) classes.

Strengths-based approach: Focuses on what students do well by helping students discover their strengths and intentionally creating opportunities for students to use those strengths in their learning and assessments. This is in contrast to a deficit approach which seeks to mitigate students' learning challenges.

Struggling learner: A student who struggles to make academic progress due to a variety of factors which may include disability, hunger, absenteeism, poverty, trauma, and more. The term can be used to describe students who are unable to make academic progress using the current instructional approach. Ongoing vision and hearing screening, classroom-based assessment, and responsive teaching pedagogies (such as response to intervention or UDL) are measures used to support struggling learners.

Sustainability: The ability to maintain program activities and benefits over time. The continuance of activities is planned beyond the termination of the initial support (project funding) used to deliver the program. Specifically, this means having the human, financial, technological, and organizational resources to provide services to meet needs and attain results towards a stated goal on an ongoing basis and requiring the organizational and programmatic infrastructure to carry out core functions independent of individuals or one-time opportunities. Donor related: The act of decreasing dependence on one source of funding and shifting financial support for program implementation to an ongoing funding stream.

Teaching and Learning Materials (TLMs): Refers to any collection of materials and resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives.

Unintended consequences: Consequences, both positive and negative, that were not foreseen or accounted for and may impact project objectives, implementation, and outcomes.

Universal Design for Learning (UDL): An educational framework that guides the development of flexible learning environments and learning spaces that can accommodate individual learning differences. UDL is characterized by three core tenets: multiple means of engagement, multiple means of representation, and multiple means of action and expression.

Vision and hearing screenings: A screening that assesses if a person has challenges with their vision or hearing. In a school-based setting, it is often used to identify students who would benefit from a more comprehensive vision or hearing exam given by a medical professional.

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