

CHILD-DIRECTED TABLET-BASED LEARNING:

Toolkits for project design, preparation, and implementation



ABOUT

These toolkits were authored by Imagine Worldwide, Professor Nicola Pitchford (University of Nottingham), and Voluntary Service Overseas.

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ABOUT IMAGINE WORLDWIDE

Imagine Worldwide exists to empower children around the globe to build the literacy and numeracy skills needed to achieve their full potential. Imagine is partnering with organizations to pilot promising child-directed, tech-enabled learning solutions. Imagine is building an evidence base for what works, why, and under what conditions and will use data to drive continuous improvement of content and implementation.

ABOUT THE UNIVERSITY OF NOTTINGHAM

The University of Nottingham was founded on a compelling vision that education can transform people's lives, has great social and economic value, and should be accessible to everyone who can benefit from it.

Professor Nicola Pitchford, from the School of Psychology, is applying the University's vision to address the Global Learning Crisis by investigating how tablet-based learning might provide access and support for marginalized children worldwide.

ABOUT VOLUNTARY SERVICE OVERSEAS (VSO)

VSO brings people from different backgrounds, expertise, and experiences together to fight poverty. VSO started the Unlocking Talent Project which is a growing, global initiative, made up of an alliance of partners that focuses on putting children and their educational needs first. At its core, the project uses innovative education technology to help overcome education challenges that hold learners back.

Have comments or feedback for the authors? Please email: toolkits@imagineworldwide.org.





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INTRODUCTION

WHY WERE THE TOOLKITS CREATED?

Tablet-based learning empowers learners to build skills and knowledge through the use of technology. Children direct their own learning, using high-quality, research-based software curriculum on a tablet. We recognize that designing and implementing tablet-based learning programs can be challenging. Therefore, we documented our learnings from implementations in Bangladesh, Malawi, and the United Kingdom to provide information to organizations interested in designing and implementing their own tablet-based learning programs. We hope that these toolkits provide your organization guidance to deliver programs that improve learning outcomes for learners in your community and around the world.

WHO ARE THE TOOLKITS FOR?

These toolkits are for organizations such as non-governmental organizations (NGOs) or Ministries of Education in governments that want to develop and deploy tablet-based learning programs. The following actors will find these toolkits useful:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Site* leaders, staff, and facilitators


*Refers to the location, such as a school, community center, or home, in which learning programs are implemented.

HOW SHOULD I USE THE TOOLKITS?

These toolkits will help your organization think through the different steps involved in designing and implementing tablet-based learning programs. Treat these recommendations as rough guidelines as they will vary based on your implementation context.

There are three toolkits within this document:

- 1) [PROJECT DESIGN](#)
- 2) [PROJECT PREPARATION](#)
- 3) [PROJECT LAUNCH, MONITORING, AND IMPROVEMENT](#)

Each toolkit is composed of worksheets covering different topics. The toolkits and worksheets are modular, so you can use all of the worksheets or select worksheets depending on your needs. We also recommend iterating on select worksheets as you go through the design and preparation process. These worksheets are denoted with a  icon.

Please note, “project” and “program” are used interchangeably throughout the toolkits.

HOW ARE THE TOOLKITS ORGANIZED AND WHERE DO I START?

We suggest the following approach to completing the toolkits; however you can start on the worksheets that you deem most relevant given your project stage.



PROJECT DESIGN TOOLKIT: WORKSHEETS



1.1 PROJECT DEFINITION

1.2 GEOGRAPHY SELECTION

1.3 SOFTWARE PARTNER SELECTION

1.4 IMPLEMENTATION PARTNER SELECTION

PROJECT PREPARATION TOOLKIT: WORKSHEETS



2.1 PROJECT PLANNING



2.2 BUDGETING

2.3 SITE SELECTION

2.4 PROCUREMENT



2.5 PROJECT DELIVERY

2.6 COMMUNITY ENGAGEMENT

2.7 FACILITATOR SELECTION AND TRAINING

2.8 TECH SET-UP AND MAINTENANCE

PROJECT LAUNCH, MONITORING, AND IMPROVEMENT TOOLKIT: WORKSHEETS

3.1 LAUNCH DAY

3.2 IMPLEMENTATION MONITORING AND IMPROVEMENT



FIVE LESSONS NOT TO MISS

Launching a tablet-based learning project? Here are five lessons you shouldn't miss:

- 1. PICK THE RIGHT SOFTWARE:** Software is critical to learners' experiences and outcomes. With so many learning products available, it can be challenging to differentiate among them. Before selecting a software, make sure that you have an in-depth understanding of its curriculum, evidence, and features. Don't forget to troubleshoot before launch!
- 2. IMPLEMENTATION WILL TRUMP STRATEGY:** For effective project delivery, plan in great detail, work with partners when you don't have the expertise or capacity, and test in the field. All project logistics need to be ironed out and discussed with any stakeholder -- from software partners to site facilitators -- who will be regularly involved in the project.
- 3. ENGAGE THE COMMUNITY:** Every implementation context is different! It is critical that the community wants and supports your project, and that the community will own and sustain the project over time. In addition, cultural and religious norms typically shape project design and implementation. To launch an effective project, engaging community members throughout preparation and implementation is vital.
- 4. EVERYTHING WILL TAKE LONGER THAN EXPECTED -- ESPECIALLY PROCUREMENT:** Procurement is one of the most time-consuming steps in preparation for delivering a tablet-based learning project. Delays can arise for a variety of reasons so start procurement as early as possible and allow for extra time.
- 5. LEARN AND IMPROVE!** Throughout design and implementation, you will learn information that may cause you to change direction. That's expected! Test your hypothesis and incorporate your learnings into the design to deliver a better project. After launching, use data and feedback to further improve the project.



PROJECT DESIGN: TOOLKIT INTRODUCTION

HOW SHOULD I USE THIS TOOLKIT?

Use this toolkit to guide you through designing your tablet-based learning program. After completing this toolkit, you will have defined your core project design components which can be used to develop a detailed [project plan](#).

WHO IS THIS TOOLKIT FOR?

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- ✓ Software Developers
- Sites leaders, staff, and facilitators

HOW IS THIS TOOLKIT ORGANIZED AND WHERE DO I START?

This toolkit is composed of four worksheets. We suggest starting with the [Project Definition](#) worksheet. After finishing the [Project Definition](#) worksheet, complete the remaining worksheets in whichever order suits your project development stage best.

WORKSHEETS



1.1 PROJECT DEFINITION

1.2 GEOGRAPHY SELECTION

1.3 SOFTWARE PARTNER SELECTION

1.4 IMPLEMENTATION PARTNER SELECTION



1.1 PROJECT DEFINITION

INTRODUCTION:

You've identified a learning challenge that you would like to address using a tablet-based learning program. To transform your idea into a well-defined project, start by defining the following:

- Problem statement
- Target beneficiaries
- Intervention
- Stakeholders
- Outcomes
- Constraints

Complete this worksheet before starting other worksheets. We also recommend iterating on this worksheet as you progress through this toolkit.

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators



 TABLE 1.1.1

AREAS TO DEFINE	QUESTIONS FOR CONSIDERATION	YOUR RESPONSE
1) Problem statement	<ul style="list-style-type: none"> • What problem are you trying to solve? • What efforts are currently being taken to address this problem? 	
2) Target beneficiaries	<ul style="list-style-type: none"> • Who are your target beneficiaries? • How are they, and their communities, going to be affected by your project? 	
3) Intervention	<ul style="list-style-type: none"> • How do you intend to solve the problem? • What steps are needed? • Why choose a tablet-based learning program? 	
4) Stakeholders	<ul style="list-style-type: none"> • Who are your stakeholders? • How will they respond to your project? Will they support your project? 	
5) Outcomes	<ul style="list-style-type: none"> • What are the measurable results you would like to achieve in the short-term (e.g., 1-2 years)? In the long-term (e.g., 5-10 years)? • How will you measure success? 	
6) Constraints	<ul style="list-style-type: none"> • Are there any risks or constraints? • How will you mitigate those risks or constraints? 	

1.2 GEOGRAPHY SELECTION

INTRODUCTION:

This worksheet provides guidance on how to identify and select a geography (country, region, or district) in which to implement your project. When selecting among different geographies, it is critical to have a deep understanding of the implementation context. You need to consider everything from the language of instruction to the Information and Communications Technology (ICT) infrastructure available. This worksheet will help you:

- Develop a fact base on different geographies
- Conduct an implementation feasibility analysis
- Select your implementation geography

AUDIENCE:

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: DEVELOP A FACT BASE ON DIFFERENT GEOGRAPHIES

Recall the Project Definition worksheet. To better understand whether your project can address the problem statement in a given geography, you need to develop a deeper understanding of the implementation context. Use the table below to develop a fact base on the learner demographics, infrastructure, stakeholders, and regulatory requirements of the different geographies in which you are considering implementing.



TABLE 1.2.1

AREAS	QUESTIONS FOR CONSIDERATION	GEOGRAPHY BEING REVIEWED:
Learner demographics	<p>Who is affected by the problem you are trying to solve? Are there particular demographics you want to serve? Consider:</p> <ul style="list-style-type: none"> • Age • Gender • Learners with Special Educational Needs and Disabilities (SEND) • In-school, out-of-school, and/or refugees or displaced learners • Existing level of educational access and achievement • Language of instruction 	
Infrastructure	<p>What is the current state of infrastructure in this geography? Consider:</p> <ul style="list-style-type: none"> • Transportation and accessibility • Power • Water and sanitation • Construction • ICT • Security 	
Stakeholders	<p>Who are the people and/or institutions that you may need to work with? Consider:</p> <ul style="list-style-type: none"> • Government • Community (e.g., Mothers groups) • Parents (e.g., associations) • Educators (e.g., teachers) • Other (e.g., funders, non-profits) 	
Regulatory requirements	<p>What are the regulatory requirements, permissions, and/or approvals needed to work in this geography?</p>	

PART II: CONDUCT AN IMPLEMENTATION FEASIBILITY ANALYSIS

Conduct a feasibility analysis of implementing in each geography. Consider any assumptions and their implications about your ability to work in each geography.

TABLE 1.2.2

AREAS	QUESTIONS FOR CONSIDERATION	GEOGRAPHY BEING REVIEWED:
Learner demographics	<ul style="list-style-type: none"> • What is your experience working with this demographic? • Are there any risks that impact the effectiveness of the project? • How will you address these risks? 	
Infrastructure	<ul style="list-style-type: none"> • What are the minimum infrastructure requirements for the project? • Does this geography satisfy the requirements? If not, what are the implications for the project? • How will you address these risks? 	
Stakeholders	<ul style="list-style-type: none"> • What is your capability to work with the necessary stakeholders? • Why might stakeholders support or oppose working with you? What support do you need and from whom? • Who will manage the project over time? • How will you address any risks to stakeholder engagement? 	
Regulatory requirements	<ul style="list-style-type: none"> • How will you obtain the necessary permissions to work in this context? • What is the implication for your project if you do not get the necessary permissions and/or if there are delays in obtaining permissions? 	
Resources required	<ul style="list-style-type: none"> • Do you have the people, time, funds, and expertise to execute this project? • What is your experience working with tech-based programs? • How will you address any gaps in resource requirements? 	

PART II: CONDUCT AN IMPLEMENTATION FEASIBILITY ANALYSIS

Are there any other assumptions that you have made about your ability to work in this geography? If so, what are the implications of those assumptions?

In general, are there any other risks in working in this geography (e.g., natural disasters, political stability, economic stability)? How will you mitigate those risks?

PART III: SELECT YOUR GEOGRAPHY

Based on Parts I and II,

a. Are there any geographies that emerge as promising from a learner, infrastructure, stakeholder, and/or resource perspective? Which ones and why?

b. In order to implement in the geographies above, do you need external expertise or support? If so, for what? See the [Implementation Partner Selection](#) worksheet for detail.

c. Would you refine your project definition? If so, how?

d. Is there additional analysis or information you would want?

1.3 SOFTWARE SELECTION

INTRODUCTION:

When selecting a software for your tablet-based learning project, you need to choose a software that will best serve your learners and can be implemented in your context. With so many products for learners in the market, it can be challenging to differentiate among them. This worksheet will help you:

- Learn about different criteria to evaluate whether a software is a good fit
- Define specific criteria to evaluate software for your context
- Evaluate software

AUDIENCE:

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- ✓ Software Developers
- Sites leaders, staff, and facilitators



PART I: LEARN ABOUT DIFFERENT CRITERIA TO EVALUATE WHETHER A SOFTWARE IS A GOOD FIT

We've outlined five categories to consider when reviewing different learning software:

1. CURRICULUM	2. EVIDENCE	3. LEARNING EXPERIENCE	4. OPERATING REQUIREMENTS	5. COST
Does the software provide appropriate and sufficient content to help learners achieve learning goals?	Is there strong evidence that demonstrates the effectiveness of the software?	How do specific features of the software enhance learning?	What are the operating requirements to deploy the software in your context?	What is the cost of the software and maintenance?

In addition, it is important to consider the partnership potential of the developer in case you want to adapt the software and/or need ongoing technical support throughout implementation.

The table below outlines the five categories in detail. If you are familiar with the criteria within each category, please proceed to Part II.

TABLE 1.3.1

CRITERIA	WHAT SHOULD YOU LOOK FOR?
1. CURRICULUM	
Scope	Evaluate whether the curriculum covers the content needed to help learners achieve the target learning outcomes.
Depth	Evaluate whether the curriculum has the number of hours of content needed for learners to achieve the target learning outcomes.
2. EVIDENCE	
Rigor	<p>Check whether any high-quality research has been completed on the effectiveness of the software or program:</p> <ul style="list-style-type: none"> • Were any independent evaluations conducted in addition to any studies produced by the developer? • Have any randomized controlled trials (RCTs) been conducted? • Did the study use a comparison group and present evidence of the similarity of the treatment and comparison groups at the beginning of the study? • Did the study examine attrition bias and present evidence of the similarity of the treatment and comparison groups at the end of the study? • Did the study demonstrate positive effects? <p>Given that most products will not have independent RCTs, determine the level of evidence required for you to feel confident about the effects of the software. See the Nesta Standards of Evidence at the end of this worksheet for guidance</p>
Relevance	Determine how applicable the research is to your implementation context based on similarity with your target beneficiaries (e.g., age, language), planned implementation model (e.g., dosage, site), and other contextual factors (e.g., country or region).
Amount	Consider the number of studies available that demonstrate the consistency of results. Consider adding to the evidence base before implementing a program at scale, using the Nesta Standards of Evidence at the end of this worksheet for guidance.
3. LEARNING EXPERIENCE	
Pedagogy	Review the method of teaching which influences how learners using the software learn (e.g., direct teaching method v. child-directed learning).
Contextualization and inclusivity	<p>Evaluate whether the content, audio, and graphics resemble the learner's place of origin, as well as exposing the learner to new people, places, and experiences. Consider:</p> <ul style="list-style-type: none"> • Language of instruction, including the dialect used • Second language support • Support features for special needs learners

TABLE 1.3.1 (CONTINUED)

CRITERIA	WHAT SHOULD YOU LOOK FOR?
3. LEARNING EXPERIENCE (continued)	
Adaptivity	Adaptive software adjusts the level of difficulty of learning activities based on the learner's performance. This ensures that the activities are at the learner's skill level.
Autonomy	Evaluate how independently a learner can use the software and the level of support needed from an adult.
Learning management	<p>Consider the following features that affect the learning experience:</p> <ul style="list-style-type: none"> • Assessments (e.g., pre- and post-activity quizzes) • Remediation (e.g., when learners incorrectly answer a question, they are given extra practice questions) • Acceleration (e.g., when learners correctly answer a question, they can skip to more challenging questions) • Performance reporting to learners and facilitators (e.g., learners collect stars for completing activities correctly, facilitator dashboard of student performance)
4. OPERATING REQUIREMENTS	
Hardware	Research the hardware (e.g., tablet, mobile, PC) and operating system (e.g., Android, iOS) requirements for the software. Consider the battery life of the tablet device when the software is running.
Online / Offline use	Consider whether the software needs to be connected to the internet or wi-fi for set-up, usage, or maintenance.
Multi-user support	Check the number of learners that can use one software license. Consider whether features vary with a multi-user deployment.
Data management	Review the data security (e.g., encryption), data back-up (e.g., automated back-up to local server), and data exporting features.
5. COST	
Costs	The software costs and incremental set-up or maintenance requirements (e.g., dedicated tech support).

PART II: DEFINE SPECIFIC CRITERIA TO EVALUATE SOFTWARE FOR YOUR CONTEXT

Using the table below, write-in which software characteristics are “nice to have” versus “must have” (non-negotiable) for your project. For example, if the language of instructions needs to be Swahili, write “Swahili” in the “must-have” column for the contextualization and inclusivity criteria. You may not have requirements for all criteria.

In addition, give each characteristic a score, from 1-3, based on how important it is for the success of your project. Use “1” for least important, “2” for somewhat important, and “3” for very important. You will use this rubric to evaluate software in Part III.

TABLE 1.3.2

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN “MUST HAVE” CHARACTERISTICS	WRITE-IN “NICE TO HAVE” CHARACTERISTICS	SCORE
1. CURRICULUM				
Scope	<ul style="list-style-type: none"> • What content is needed to ensure that learners achieve the target learning outcomes? • Are there content requirements per any regulatory body? 			
Depth	<ul style="list-style-type: none"> • How many hours of content are needed to ensure that learners achieve the target learning outcomes? 			
2. EVIDENCE				
Rigor	<ul style="list-style-type: none"> • What level of evidence do I need to be confident about the effectiveness of the software? • What type of effects does the evidence need to demonstrate? • Does the evidence need to include any independent evaluations in addition to studies produced by the developer? • Does the evidence need to include any RCTs? • Do the research studies need to use a comparison group? 			
Relevance	<ul style="list-style-type: none"> • What similarities does the research need to have with my target beneficiaries (e.g., age, language), planned implementation model (e.g., dosage, site), and other contextual factors (e.g., country or region)? 			

TABLE 1.3.2 (CONTINUED)

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN “MUST HAVE” CHARACTERISTICS	WRITE-IN “NICE TO HAVE” CHARACTERISTICS	SCORE
2. EVIDENCE (continued)				
Amount	<ul style="list-style-type: none"> • How many studies need to demonstrate the positive effects of the software? 			
3. LEARNING EXPERIENCE				
Pedagogy	<ul style="list-style-type: none"> • What should the theories behind the teaching be (e.g., direct- instruction, inquiry-based learning)? 			
Context-ualization and inclusivity	<ul style="list-style-type: none"> • What does the language of instruction need to be? • How culturally relevant and age appropriate should content be? • What type of content, visuals, and support does the software need? • Are there any requirements per any regulatory body? 			
Adaptivity	<ul style="list-style-type: none"> • How should the software adapt the learning pathway? • What type of data is required to do so? 			
Autonomy	<ul style="list-style-type: none"> • What support is required from an adult for a learner to use the software? • What digital literacy support is needed? 			
Learning manage-ment	<ul style="list-style-type: none"> • What assessments are needed? • What remediation and acceleration supports are needed? • What type of reporting is needed to communicate mastery to learners and to facilitators? 			

TABLE 1.3.2 (CONTINUED)

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN “MUST HAVE” CHARACTERISTICS	WRITE-IN “NICE TO HAVE” CHARACTERISTICS	SCORE
4. OPERATING REQUIREMENTS				
Hardware	<ul style="list-style-type: none"> • What operating system should the software require? • What hardware does the software need to be built for? • How much storage capacity and tablet battery life is required to run software? 			
Online / Offline use	<ul style="list-style-type: none"> • What level of internet connectivity is required for set-up, maintenance, and usage? 			
Multi-user support	<ul style="list-style-type: none"> • How many users does the software need to support on a single tablet device? • Do users need to have unique log-ins? 			
Data management	<ul style="list-style-type: none"> • What supports are needed to back-up and recover data? • What data or reports should be available (e.g., usage) and at what level (e.g., child-level)? • Are there any data security and compliance requirements that the software must meet? 			
5. COST				
Cost	<ul style="list-style-type: none"> • What is the software licensing cost? • Are there any incremental set-up or maintenance costs? • How do the costs change as the program scales? 			

PART III: EVALUATE SOFTWARE

Conduct diligence of each software you are considering by using publicly available information, user testing the product, and reaching out directly to the developer. Use the table below to document your research.

TABLE 1.3.3

CRITERIA	Software 1: _____	Software 2: _____
1. CURRICULUM		
Scope		
Depth		
2. EVIDENCE		
Rigor		
Relevance		
Amount		
3. LEARNING EXPERIENCE		
Pedagogy		
Contextualization and inclusivity		
Adaptivity		
Autonomy		
Learning management		

TABLE 1.3.3 (CONTINUED)

CRITERIA	Software 1: _____	Software 2: _____
4. OPERATING REQUIREMENTS		
Hardware		
Online/ Offline use		
Multi-user support		
Data management		
5. COST		
Cost		

Using your criteria from Part II, evaluate and prioritize each software to narrow down your list to the most promising software. Keep in mind, there may be software that does not satisfy a feature that you've identified but you may be able to work with the developer to adapt the software.

THE NESTA STANDARDS OF EVIDENCE

The objective of developing standards of evidence is to help us know how confident we can be in the evidence provided to show that an intervention is having a positive impact.

LEVEL 5

You have manuals, systems and procedures to ensure consistent replication and positive impact

LEVEL 4

You have one + independent replication evaluations that confirms these conclusions

LEVEL 3

You can demonstrate causality using a control or comparison group

LEVEL 2

You capture data that shows positive change, but you cannot confirm you caused this

LEVEL 1

You can describe what you do and why it matters, logically, coherently and convincingly

Source: Puttick, R. and Ludlow, J. (2013) 'Standards of Evidence: An Approach that Balances the Need for Evidence with Innovation.' London: Nesta

For additional guidance on evaluating different research evidence and finding the right evidence, see the Nesta "Using research evidence: A practical guide" toolkit.

LEVEL	OUR EXPECTATION	HOW THE EVIDENCE CAN BE GENERATED
AT LEVEL 1	You can give an account of impact. By this we mean providing a logical reason, or set of reasons, for why your intervention could have an impact and why that would be an improvement on the current situation.	You should be able to do this yourself, and draw upon existing data and research from other sources.
AT LEVEL 2	You are gathering data that shows some change amongst those receiving or using your intervention.	At this stage, data can begin to show effect but it will not evidence direct causality. You could consider such methods as: pre and post-survey evaluation, cohort/panel study, regular interval surveying.
AT LEVEL 3	You can demonstrate that your intervention is causing the impact by showing less impact amongst those who don't receive the product/service.	We will consider robust methods using a control group (or another well justified method) that begin to isolate the impact of the product/service. Random selection of participants strengthens your evidence at this level, you need to have a sufficiently large sample at hand (scale is important in this case).
AT LEVEL 4	You are able to explain why and how your intervention is having the impact you have observed and evidenced so far. An independent evaluation validates the impact. In addition, the intervention can deliver impact at a reasonable cost, suggesting that it could be replicated and purchased in multiple locations.	At this stage, we are looking for a robust independent evaluation that investigates and validates the nature of the impact. This might include endorsement via commercial standards, industry Kitemarks etc. You will need documented standardisation of delivery and processes. You will need data on costs of production and acceptable price points for your (potential) customers.
AT LEVEL 5	You can show that your intervention could be operated up by someone else, somewhere else, and scaled up, whilst continuing to have positive and direct impact on the outcome, and whilst remaining a financially viable proposition.	We expect to see use of methods like multiple replication evaluations; future scenario analysis, fidelity evaluation.

Source: Puttick, R. and Ludlow, J. (2013) '[Standards of Evidence: An Approach that Balances the Need for Evidence with Innovation.](#)' London: Nesta

For additional guidance on evaluating different research evidence and finding the right evidence, see the Nesta "[Using research evidence: A practical guide](#)" toolkit.

1.4 IMPLEMENTATION PARTNER SELECTION

INTRODUCTION:

Effective on-the-ground delivery is crucial for a project's success. Some organizations will have the expertise and capability to conduct all necessary implementation activities, while others may require additional support from external organizations. This worksheet will help you:

- Define your implementation capabilities and gaps
- Evaluate potential implementation partners

AUDIENCE:

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: DEFINE YOUR IMPLEMENTATION CAPABILITIES AND GAPS

Implementation partners can help your organization more effectively deliver and scale your project. Often, implementation partners bring a specific skill set or expertise to help an organization fill any gaps or strengthen their own capabilities. Different types of organizations can play an implementation partner role.

To determine whether your organization needs implementation partner(s),

- Brainstorm your implementation activities by using the starter list below
- Reflect on your organization's ability to conduct the activities
- Mark the activities you can currently do or will be able to do in-house
- Mark the activities for which you need external support

Note, some activities may require both in-house and external support.



TABLE 1.4.1

IMPLEMENTATION ACTIVITIES	SAMPLE CAPABILITIES	I HAVE THIS CAPABILITY IN-HOUSE	I NEED EXTERNAL SUPPORT	THIS CAPABILITY IS NOT REQUIRED FOR MY PROJECT
Site selection	<ul style="list-style-type: none"> • Knowledge of and ability to work with site stakeholders and local communities • Knowledge of and ability to obtain permissions to work in site • Other _____ 			
Procurement	<ul style="list-style-type: none"> • Knowledge of procurement regulations in the implementation geography • Procurement and supplier management within the implementation geography • Other _____ 			
Project delivery	<ul style="list-style-type: none"> • Logistics and organization • Coordination of project stakeholders • Other _____ 			
Community engagement	<ul style="list-style-type: none"> • Knowledge of and ability to solicit input and generate support from local communities • Other _____ 			
Facilitator selection and training	<ul style="list-style-type: none"> • Facilitator recruitment and onboarding • Ongoing facilitator training and support • Other _____ 			
Technology set-up and maintenance	<ul style="list-style-type: none"> • Software and hardware set-up and troubleshooting • Software and hardware secure storage • Other _____ 			

TABLE 1.4.1 (CONTINUED)

IMPLEMENTATION ACTIVITIES	SAMPLE CAPABILITIES	I HAVE THIS CAPABILITY IN-HOUSE	I NEED EXTERNAL SUPPORT	THIS CAPABILITY IS NOT REQUIRED FOR MY PROJECT
Implementation monitoring	<ul style="list-style-type: none"> • Ensure fidelity of implementation (e.g., conduct weekly monitoring visits) • Outcomes measurement (if needed) • Other _____ 			
Crisis management	<ul style="list-style-type: none"> • Response to urgent issues within the appropriate time • Other _____ 			
Other				

If you do not expect to need support from implementation partner(s), please proceed to the [Project Preparation toolkit](#). If you need to identify and evaluate implementation partners, continue to Part II below.

PART II: EVALUATE POTENTIAL IMPLEMENTATION PARTNERS

Once you have defined which implementation activities require external support, you can evaluate partners to satisfy those needs. Different partners may satisfy different needs – for example, if you are implementing at a school, the school leadership may satisfy a need for facilitator management. However, they may not be equipped to satisfy a need for procurement, and you may consider a government or NGO partner for support.

Using the table below, write in the capabilities for which you need external support. Evaluate each potential implementation partner’s strengths and weaknesses for those capabilities.

TABLE 1.4.2

IMPLEMENTATION ACTIVITIES	CAPABILITIES REQUIRING EXTERNAL SUPPORT	WHAT IS MY POTENTIAL PARTNER'S CAPABILITY TO SUPPORT THE NEEDED IMPLEMENTATION ACTIVITY?	
		STRENGTHS?	WEAKNESSES?
Site selection			
Procurement			
Project delivery			

TABLE 1.4.2 (CONTINUED)

IMPLEMENTATION ACTIVITIES	CAPABILITIES REQUIRING EXTERNAL SUPPORT	WHAT IS MY POTENTIAL PARTNER'S CAPABILITY TO SUPPORT THE NEEDED IMPLEMENTATION ACTIVITY?	
		STRENGTHS?	WEAKNESSES?
Community engagement			
Facilitator selection and training			
Technology set-up and maintenance			
Implementation monitoring			
Crisis management			
Other			

In addition, when you are evaluating different partners, think about any organizational considerations of a partnership including but not limited to:

- Alignment of goals
- Willingness to collaborate
- Similarities and differences in working culture
- Cost

Write down your organizational needs below:

Based on these considerations, identify your high-priority implementation partner(s).



GREAT JOB!
YOU'VE FINISHED:



PROJECT DESIGN TOOLKIT



PROJECT PREPARATION: TOOLKIT INTRODUCTION

HOW SHOULD I USE THIS TOOLKIT?

The Project Preparation toolkit is intended to guide you through a series of activities -- from creating a detailed project plan to procuring technology -- in preparation for project launch. Start the Project Preparation toolkit once you have completed the [Project Design](#) toolkit.

WHO IS THIS TOOLKIT FOR?

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- Software Developers
- ✓ Sites leaders, staff, and facilitators

HOW IS THIS TOOLKIT ORGANIZED AND WHERE DO I START?

This toolkit is composed of eight worksheets. Our suggested approach to completing the toolkit is outlined below, however you may complete the worksheets in whichever order suits your project development stage best.

WORKSHEETS

- ↻ 2.1 PROJECT PLANNING
- ↻ 2.2 BUDGETING
- 2.3 SITE SELECTION
- 2.4 PROCUREMENT
- ↻ 2.5 PROJECT DELIVERY
- 2.6 COMMUNITY ENGAGEMENT
- 2.7 FACILITATOR SELECTION AND TRAINING
- 2.8 TECH SET-UP AND MAINTENANCE



2.1 PROJECT PLANNING

INTRODUCTION:

A project plan enables you to manage your project according to scope and deadlines, and it can be used to communicate progress with stakeholders. Every project plan should clearly define deliverables, milestones, timelines, and team member responsibilities.

This worksheet will help you:

- Define project team roles and processes
- Outline a project plan
- Conduct a risk assessment

Before starting this worksheet, please complete the Project Definition worksheet in the Project Design toolkit.

AUDIENCE:

- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- Software Developers
- ✓ Sites leaders, staff, and facilitators

PART I: DEFINE PROJECT TEAM ROLES AND PROCESSES

Creating a detailed project plan requires assigning ownership to different tasks that must be completed to achieve your deliverables. Therefore, it is important to clearly define who is on your project team and what role he/she will play.

Below are common team roles. Consider who will play the following role(s) on your project and add roles as needed.





TABLE 2.1.1

ROLE	GENERAL RESPONSIBILITIES	NAME(S)
Project Leaders	Strategic decision-making for the project	
Project Sponsors	Funding and/or advocating for the project	
Project Manager	Managing the team, completion of deliverables, and timelines	
Team Members	Completing project tasks. Areas of expertise may include: Design, Research, IT, Education	
Other: _____		

In addition, we suggest outlining team management processes to ensure the project is delivered smoothly.

Consider:

- How, to whom, and at which frequency will you track and communicate
 - o Progress?
 - o Challenges?
 - o Risks?
- Who has the final sign-off for
 - o Strategic decisions?
 - o Budget?
- Is there a preferred project management tool that the team will use?

Write-in your team management processes below.

PART II: OUTLINE A PROJECT PLAN

First, define your key project deliverables. For each project outcome identified in the Project Definition worksheet in the Project Design toolkit, write down the deliverables (tangible outputs) that will enable you to achieve those outcomes. Consider and adapt the following sample, non-exhaustive list of deliverables. Estimate the time needed to accomplish the deliverables.





TABLE 2.1.2

DELIVERABLES (SAMPLE, NON-EXHAUSTIVE LIST)	DEADLINE
Finalize the budget	
Select the implementation site	
Procure items and services	
Engage the community	
Select facilitators	
Train facilitators	
Conduct launch day	
Establish monitoring processes	
Other: _____	

For projects that are a part of a research study and/or from which data will be collected, consider the following deliverables:

- Receive ethics approval from the appropriate body
- Obtain consent to participate in the study
- Other: _____

Next, brainstorm the tasks that must be completed to accomplish each deliverable. Consider any assumptions (e.g., resources required, timelines) that may need to be refined. Complete the following template for each deliverable.

Deliverable 1: _____; Estimated due date: _____

TABLE 2.1.3

TASKS	TIMELINE (START / END DATES)	RESOURCES REQUIRED	OWNER	ASSUMPTIONS AND DEPENDENCIES





Once you've defined the deliverables and tasks, determine the project milestones. Milestones are used as checkpoints to ensure that a project is on track and can occur at the beginning, middle, or end of a project. Milestones often mark a key event or decision point. Complete the following template for each deliverable.

Deliverable 1: _____; Estimated due date: _____

TABLE 2.1.4

MILESTONES	EXPECTED DATE

Using the information above, create your project plan by inputting the information into your team's preferred project management tool. If your team doesn't have a preferred tool, you can use any Gantt chart template. There are plenty of templates and tools available online.

PART III: CONDUCT A RISK ASSESSMENT

Examine the assumptions you used to create your project plan and identify any potential risks. To conduct a risk assessment,

1. Brainstorm risks that might impact the project. Consider risks related to:
 - Budget
 - Politics
 - Procurement
 - Reputation / Brand
 - Stakeholders (e.g., approvals, change management, scope changes)
 - Team resources (e.g., turnover, leave)
 - Technology
2. Assign each risk a probability of occurring (high, medium, low)
3. Determine the impact of each risk could have on the project (e.g., timeline delays, over-budget spend)




 Use the table below to structure your thoughts.

TABLE 2.1.5

RISK	PROBABILITY	IMPACT

Based on the risks identified above, reflect on which risk indicators you will track and how you will mitigate risks. We suggest prioritizing your response to risks based on risks that are high probability and high impact. Use the table below to structure your thoughts.

TABLE 2.1.6

RISK	MITIGATION

2.2 BUDGETING

INTRODUCTION:

A project budget will give you a picture of the different costs you can expect to incur during the project lifecycle. Budgeting, especially at the beginning of the project planning process, is critical to ensure that you can deliver your project to the quality desired given the resources available.

In any budgeting process, identify the cost categories needed to deliver your project, estimate costs, and iterate. We suggest using previous projects as benchmarks and considering local adaptations, taxes, and contingencies when estimating costs.

This worksheet provides guidance on typical direct cost categories for delivering a tablet-based learning project. Indirect costs are not included as they are typically shared across multiple activities and are not uniquely incurred as a result of a single project.

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

A NOTE ON DIRECT COSTS:

When you first start a tablet-based learning project, you can expect large start-up costs. In our experience, the largest cost categories include site construction, hardware, and program specialists/managers. However, over time and as you scale the project, the costs of operating a tablet-based learning program on a per-child basis will drop substantially.



 TABLE 2.2.1

DIRECT COSTS	SUB-CATEGORIES (NON-EXHAUSTIVE)
Personnel	<ul style="list-style-type: none"> • Salaries and stipends directly tied to the project for personnel such as <ul style="list-style-type: none"> o Education technical advisors o IT specialists o Program specialists (e.g., designer, manager) o Research specialists (e.g., evaluators, analysts, managers) o On-site support (e.g., security, community mobilizers, facilitators)
Technology and power	<ul style="list-style-type: none"> • Equipment (e.g., batteries and charging system, solar panels) • Peripherals and accessories (e.g., headphones, tablet covers) • Services (e.g., data) • Software (e.g., licenses, maintenance) • Hardware (e.g., tablets, server)
Site materials and maintenance	<ul style="list-style-type: none"> • Facilitator materials (e.g., attendance registers, flip charts) • Seating (e.g., chairs, floor mats) • Security equipment (e.g., locked cabinets) • Services (e.g., construction, maintenance)
Trainings and workshops	<ul style="list-style-type: none"> • Training materials • Refreshments
Monitoring and evaluation	<ul style="list-style-type: none"> • Accommodation and transportation (for evaluators, if not local) • Ethical approval by the appropriate commissioning body • Evaluator training • Outcome assessments • Reports

Detail on [Procurement](#) and [Tech Set-up and Maintenance](#) can be found in those respective worksheets.

For additional guidance on creating a project budget, please see the publicly available online resources below.

Note, we do not endorse any products listed in these resources.

- [7 Steps for a Successful Project Budget](#)
- [Creating a Project Budget - A Complete Guide for 2020](#)
- [How to Create a Project Budget](#)

2.3 SITE SELECTION

INTRODUCTION:

Before you start this worksheet, please complete the Project Design toolkit. Once you've defined your project and selected your geography, software, and implementation partners, you will need to select implementation sites. These sites are the schools, community centers, or family homes in which you plan to deliver tablet-based learning programs. This worksheet will help you:

- Develop an understanding of different implementation sites
- Create a site fact base
- Select sites

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: DEVELOP AN UNDERSTANDING OF DIFFERENT IMPLEMENTATION SITES

Broadly, there are three types of sites – schools or other structured learning environments, community centers, or family homes. The table below highlights some considerations for implementing in each type of site. Note, these considerations will vary by implementation context.

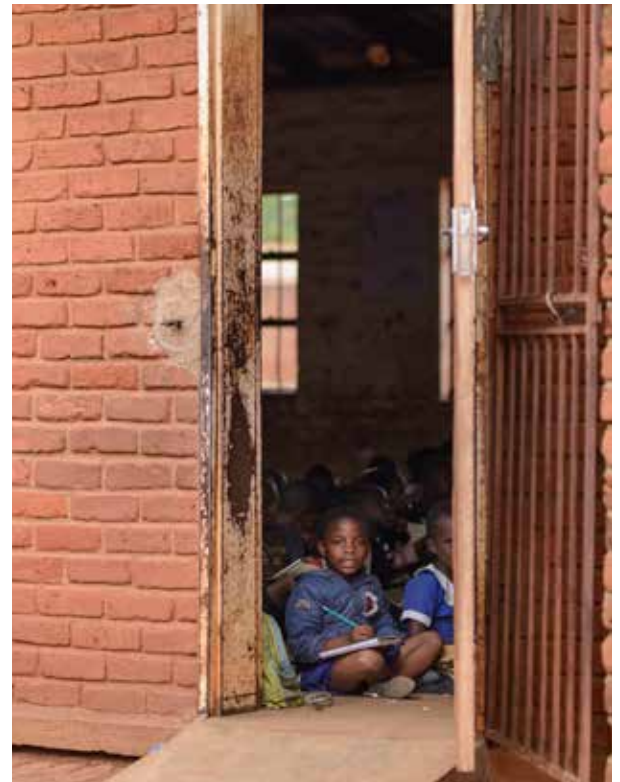


TABLE 2.3.1

SITES	SCHOOL	COMMUNITY CENTER	FAMILY HOME
Learners	<ul style="list-style-type: none"> • Site provides access to a large number of learners who are already attending school on a defined calendar 	<ul style="list-style-type: none"> • Site likely has existing programs for the target beneficiaries, but attendance may be voluntary or inconsistent 	<ul style="list-style-type: none"> • Site may provide learning opportunities for the entire family although it may be challenging to reach many learners at once due to home capacities and locations
Facilitators	<ul style="list-style-type: none"> • Trained teachers may be available to facilitate sessions, but may require supplementary pay and/or training 	<ul style="list-style-type: none"> • Site staff may be available to facilitate sessions, although there is likely variability in skillsets • Facilitators may require supplementary pay and/or training 	<ul style="list-style-type: none"> • Parents may be able to facilitate sessions, but additional facilitators may be needed to transport devices between sites • Facilitators may require pay and/or training
Existing site protocols and permissions	<ul style="list-style-type: none"> • Session time needs to fit into the existing school schedule • Site may require that the software curriculum is aligned to set education standards 	<ul style="list-style-type: none"> • Session time needs to fit into existing program schedule • Site is likely flexible with the scope of the software curriculum 	<ul style="list-style-type: none"> • Session time is likely flexible; however communities may have religious and cultural commitments that affect session time • Site is likely flexible with the scope of the software curriculum
Infrastructure and security	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security, but tech can likely be secured onsite 	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security, but the tech can likely be secured onsite 	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security. If technology is carried from home to home, finding a space for charging and storage will be necessary

PART II: CREATE A SITE FACT BASE

Based on the information you have gathered and discussions with your implementation partners, compile a list of potential sites. We suggest visiting sites to narrow down your list. If you cannot visit the sites, connect remotely with site stakeholders and/or ask your partners to visit.

Who should I meet at the sites? Meet the individuals who will be affected by the project. Use the starter list below to develop your site stakeholder list.

SCHOOL

- Learners
- Parents and parent associations
- School leaders and staff
- Community leaders
- Government education leaders and staff

COMMUNITY CENTER

- Learners
- Parents
- Center leaders and staff
- Community leaders
- Other organizations conducting programming in the community

FAMILY HOME

- Learners
- Families
- Community leaders
- Other organizations conducting programming in the community

What should I ask site stakeholders? In general, we suggest asking questions to better understand stakeholder characteristics and perspectives as well as site characteristics. Use the sample questions below as a starter list.

TABLE 2.3.2

STAKEHOLDER CHARACTERISTICS AND PERSPECTIVES	
Site goals	<ul style="list-style-type: none"> • What are your goals for the project? What are you hoping to accomplish? • What major challenges does the project help address?
Learners	<ul style="list-style-type: none"> • What is the demographic of learners at the site (e.g., age, gender, language)? • How might learners react to the project? • How many learners attend and how regularly? Are there any attendance challenges?
Facilitators	<ul style="list-style-type: none"> • Who is available and interested to facilitate the program? • What type of training would be required to support the facilitators?
Community	<ul style="list-style-type: none"> • What are community perspectives on education and/or technology-enabled learning? • How would the community react to the project? What might be their major concerns? • How is the community currently involved in the site? How might the community want to be involved in the project? • What are the different characteristics of the community (e.g., language, religion, culture)? How might they affect project delivery?
Other stakeholders	<ul style="list-style-type: none"> • Who else should be involved in these discussions (e.g., government, educators, non-profits, funders, and researchers)? • What would their interests be? What would their biggest concerns be?
SITE CHARACTERISTICS	
Existing site protocols and permissions	<ul style="list-style-type: none"> • What are the site's operating protocols (e.g., daily schedule)? Take me through a typical day for a learner, teacher, staff member, etc. • What permissions or approvals are required to launch the project at the site?
Infrastructure and security	<ul style="list-style-type: none"> • How accessible is the site? How do learners, site leaders, and staff get to the site? • What type of ICT infrastructure does the site have? • What power sources are available (e.g., solar, grid)? • What type of access to water and sanitation is available? • Where and when could learners use the tablets? How much space is available?

Who should be present for site visits? The project leaders, project manager, and any partners supporting the work on the ground should be present in addition to site leaders and staff.

What should you be prepared to share at the site visits? You should be prepared to share overviews of the following:

- Background on your organization and partnering organizations
- Project goals
- Project software
- Implementation / delivery model and support needed (if any)

We also suggest bringing tablets with the software for stakeholders to trial.

SAMPLE SCHOOL SITE VISIT SCHEDULE

ACTIVITY	SITE ATTENDEES*
Welcome and meeting with the Head Teacher and Deputy Head Teacher	<ul style="list-style-type: none"> • Head Teacher • Deputy Head Teacher
Meeting with community leaders and school committees	<ul style="list-style-type: none"> • Head Teacher • Parent Teacher Association • School Management Committee • Mothers Group • Other community leaders
Meeting with select teachers and learners	<ul style="list-style-type: none"> • Head Teacher or Deputy • Teachers • Learners
Tablet demonstration	<ul style="list-style-type: none"> • Head Teacher • Deputy Head Teacher • Teachers • Parent Teacher Association • School Management Committee • Mothers Group • Other community leaders
Tour of site and classroom observation	<ul style="list-style-type: none"> • Head Teacher or Deputy • Teachers • Learners
Closing with the Head Teacher and Deputy Head Teacher	<ul style="list-style-type: none"> • Head Teacher • Deputy Head Teacher

*The project leaders, project manager, and any partners supporting the work on the ground should be present in all sessions.

PART III: SELECT SITES

As you gather information according to Part II, use the matrix below to aggregate information to assess and select sites. This will likely be an iterative process involving your partners. Once you make your selections,

- Start the permission / approval process with each site
- Begin preparing your sites for the launch (the following worksheets will provide guidance)

TABLE 2.3.3

TOPICS	SITE 1	SITE 2	SITE3
STAKEHOLDER CHARACTERISTICS AND PERSPECTIVES			
Site goals			
Learners			
Facilitators			
Community			
Other stakeholders			
SITE CHARACTERISTICS			
Existing site protocols and permissions			
Infrastructure and security			

2.4 PROCUREMENT

INTRODUCTION:

Procurement is one of the most critical activities in preparation for delivering a tablet-based learning program. Although procurement may seem straightforward, challenges can arise due to stringent procurement policies, limited sourcing capacity, delayed negotiations, or even customs clearance which can pose a risk to your project timeline. This worksheet provides guidelines on:

- What is procurement
- When to begin procurement
- Common procurement categories for tablet-based learning programs

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: WHAT IS PROCUREMENT?

Procurement encompasses the activities required to obtain or purchase goods and services. A typical process involves the following steps:

1. Determine specifications needed for the new product or service
2. Research the market to identify potential suppliers (alternatively, check your procurement department's list of approved suppliers)
3. Evaluate suppliers and negotiate terms.
Consider:
 - a. Sourcing samples
 - b. Benchmarking terms between suppliers
 - c. Evaluating total cost of ownership (TCO)*
 - d. Shipping and customs
4. Establish contract terms with selected supplier
5. Submit order. Once received, fulfill payment to supplier



*TCO represents the cost of owning the product from purchase to disposal which includes costs associated with installation, maintenance, and repairs. For example, the TCO for software includes the license fee plus any annual software maintenance fees.

PART II: WHEN TO BEGIN PROCUREMENT?

Procurement delays are common and can pose a risk to your start date. In some cases procurement can take over six months. We recommend that you begin procurement as early as possible to ensure all goods arrive with enough time to set-up, test, and train people. Build in extra time and/or be prepared to adjust your project schedule. Delays can result from:

- Procurement department policies or requirements
- Procurement department capacity to process multiple requests
- Supplier negotiations
- Shipping and delivery
- Customs clearance



CASE EXAMPLE: PROCUREMENT LESSONS LEARNED FROM A REFUGEE CAMP IMPLEMENTATION IN COX'S BAZAR, BANGLADESH

The International Rescue Committee, in partnership with Enuma, Imagine Worldwide, and War Child Holland implemented a home and center-based tablet learning intervention in refugee camps in Cox's Bazar, Bangladesh. The program served approximately 600 out-of-school Rohingya refugee children who were 6-12 years old. Children gathered in community centers or facilitator homes four times per week to receive tablet-based literacy and numeracy instruction. Children used either Kitkit School (Enuma) or Can't Wait to Learn (War Child Holland) software for approximately four hours per week. The initial program ran from November 2019 to March 2020.

PROCUREMENT LESSONS LEARNED

"We began device procurement 4 months before our expected launch date and still were forced to delay our launch by several weeks due to procurement delays. Half of our tablets were shipped into the country and half our tablets were procured from a local supplier. Expect

*ambiguity in the customs clearance process. It may be hard to know with 100% confidence that your tablets will arrive in time. Be sure to **build in a buffer and a Plan B** in case the tablets do not pass through customs quickly and ensure you **have a point person working closely with the government to negotiate the customs clearance. Relationship building in this process is key.** We also learned that local suppliers often do not have more than 100 devices of any kind in stock. However, they are able to buy more if you can guarantee to them that you will purchase them. You can work ahead of time to **ensure your organization has processes in place to provide suppliers with a legally binding guarantee of purchase, especially if you are ordering large quantities of tablets.** This will offset risk for the local supplier and encourage them to act quickly on your behalf."*

-International Rescue Committee,
Cox's Bazar, Bangladesh

PART III: COMMON PROCUREMENT CATEGORIES FOR TABLET-BASED LEARNING PROGRAMS

The table below includes typical procurement categories for tablet-based learning programs. For software procurement, see the [Software Selection](#) worksheet in the Project Design toolkit.

TABLE 2.4.1

CATEGORY	PURPOSE	CONSIDERATIONS
HARDWARE AND ACCESSORIES		
Tablets	Provide learners devices on which to use software	<ul style="list-style-type: none"> • Average lifespan • Battery life and time to charge • Dimensions and weight • Maintenance and durability • Sensitivity to touch • Storage requirements
Tablet covers and screen protectors	Protect tablets	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Maintenance and durability
Headphones or	Provide learners access to software audio	<ul style="list-style-type: none"> • Average lifespan • Cable type (e.g., braided) • Jack type (e.g., removable) • Maintenance and durability • Size (e.g., child-sized, adjustable) • Style and comfort (e.g., over the ears, in-ear) • Volume (e.g., adjustable, max. 85 decibels recommended for children)
Servers and/or SIM cards	Store and transmit data as needed	<ul style="list-style-type: none"> • Average lifespan • Dimensions • Storage capacity for data • Installation, maintenance, and durability for server components (e.g., SD card, SIM card)
EQUIPMENT		
Charging equipment (e.g., batteries)	Charge tablets	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Number of charges held • Multiple device charging feature
Power/Energy equipment	Generate power to charge tablets	<ul style="list-style-type: none"> • Average lifespan • Energy type selected (e.g., solar) based on accessibility, intermittency levels, cost, etc. • Equipment (e.g., solar panel, charge controller, power charger) • Installation, maintenance, and durability

TABLE 2.4.1 (CONTINUED)

CATEGORY	PURPOSE	CONSIDERATIONS
EQUIPMENT (CONTINUED)		
Storage (e.g., cabinet, locks, transportation backpacks)	Secure tech to prevent accidents or theft	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Installation, maintenance, and durability • Level of security • Protection from the elements (e.g., waterproof)
Room accessories (e.g., chairs, floor mats)	Create a more comfortable learning space	<ul style="list-style-type: none"> • Average lifespan • Comfort level • Dimensions and weight • Maintenance and durability
SERVICES		
Session space construction and maintenance (if needed)	Provide a comfortable space for learners to use tablets	<ul style="list-style-type: none"> • Labor and material cost, including subcontractors • Design cost (space should have sufficient air circulation, light, and rain protection) • Licenses and insurance • Maintenance and durability considering weather • Quality of previous projects • Time required to build

Write in your other procurement needs below:

2.5 PROJECT DELIVERY

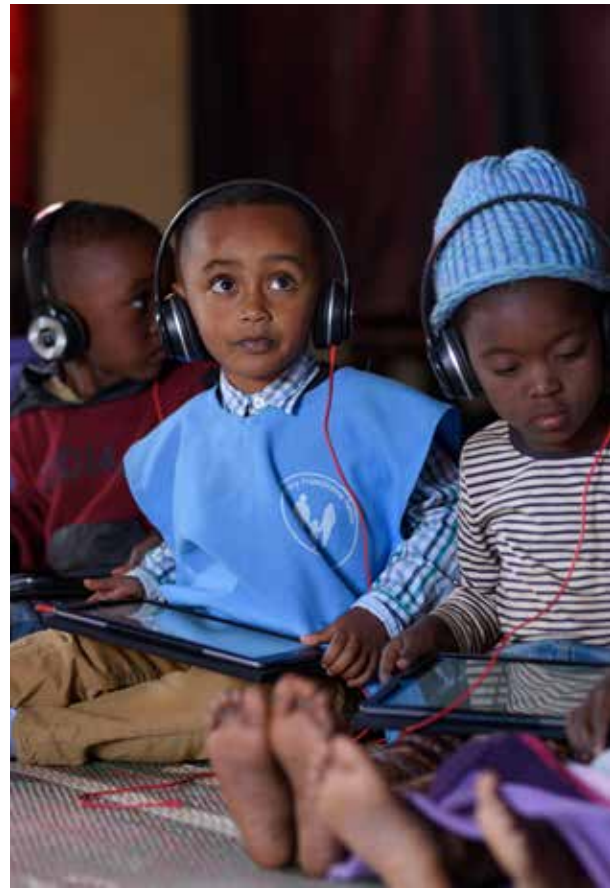
INTRODUCTION:

Once you have selected a site, we recommend creating a process map that outlines how the project is delivered and what stakeholder involvement is needed to test key assumptions about your delivery. We refer to this process mapping exercise as developing a project delivery model. This worksheet provides guidelines on:

- What is a project delivery model
- Creating a project delivery model

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators



PART I: WHAT IS A PROJECT DELIVERY MODEL?

A project delivery model is a step-by-step outline that shows how different stakeholders interact with the intervention. A delivery model will allow you to:

- Understand the logistics required to execute the project
- Unearth risks to project delivery
- Communicate with stakeholders about project delivery



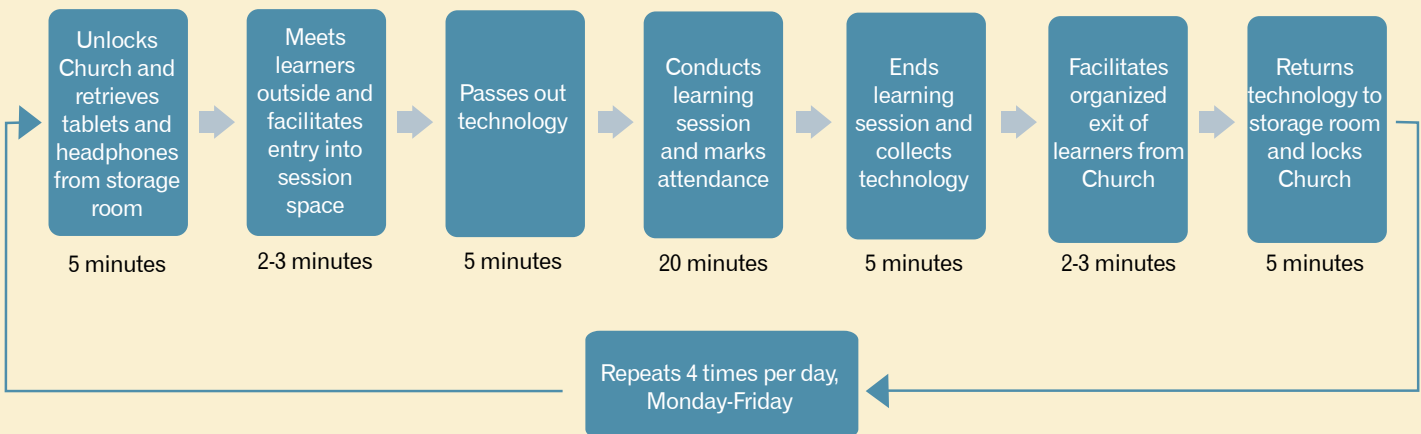


CASE EXAMPLE: PROJECT DELIVERY IN DZALEKA REFUGEE CAMP, MALAWI

Imagine Worldwide, in partnership with Integrity Church School, the University of Malawi-Chancellor College, and Voluntary Service Overseas (VSO), implemented a tablet-based learning program at Integrity Church School in the Dzaleka Refugee Camp in Malawi in 2019. Integrity Church School is a community-supported school serving over 800 refugee children. The program was implemented as part of a proof-of-concept randomized controlled trial with the goal of helping young children gain a solid foundation in early mathematics by using high-quality, tablet-based instruction in English provided by the software developer, onebillion. The program supplemented the regular instruction that the children already received at school.

Children in preschool 3, grade 1, grade 2, and grade 3 (ages 5-8) used the software for approximately 20 minutes per day, five days per week. Each day, four sessions were held with approximately 60 children per session. Two Integrity staff members facilitated the sessions. Given space constraints at Integrity Church School and Dzaleka Refugee Camp, sessions were conducted in the church, located at the school site. Children attended sessions during their 40-minute scheduled break during the school day. All technology was stored inside the church. The research component of the program was conducted from October 2019 to March 2020.

Below is the delivery model for a facilitator at Integrity Church School.



PART II: CREATING A PROJECT DELIVERY MODEL

We recommend creating a delivery model for each stakeholder. Work with your site, implementation, and software partners to define a delivery model that covers the following major steps at the site:

- Arrival
- Set-up
- Tablet-based learning session
- Wrap-up
- Departure

A note on offsite technology storage and logistics

If your project delivery requires transporting technology to the sites from an off-site storage location or transporting technology between sites throughout the day, logistics for arrival, set-up, wrap-up, and departure become even more vital. Consider the following when developing your project delivery model:

- Travel time and distance to site
- Weather conditions that affect tablet distribution (e.g., heat, rain)
- Tablet power supply





TABLE 2.5.1

STEP	LEARNER	FACILITATOR
Arrival	<ul style="list-style-type: none"> • How will learners arrive at the site? • At what time should they arrive? 	<ul style="list-style-type: none"> • How will facilitators arrive at the site? • At what time should they arrive?
Set-up	<ul style="list-style-type: none"> • How will learners be organized? • What tasks, if any, will learners need to complete to set-up for the session? • From whom will learners receive direction? • How much time will learners need to get organized? • How many learners will attend each session? 	<ul style="list-style-type: none"> • What tasks will facilitators need to complete to set-up for the session? • How will facilitators retrieve and distribute materials or technology? • From whom will facilitators receive direction? • How much time will facilitators need to set-up? • How many facilitators will attend each session? • What should facilitators do if another facilitator is absent?
Tablet-based learning session	<ul style="list-style-type: none"> • What activities will be conducted? In which order? For how long? • How will learners interact with the tech, each other, facilitators or other people during the session? 	<ul style="list-style-type: none"> • What activities will be conducted? In which order? For how long? • How will facilitators interact with the tech, each other, learners or other people during the session? • How will facilitators intervene if a learner is not on task or is struggling?
Wrap-up	<ul style="list-style-type: none"> • How much time will be needed to clean up (e.g., put away tech)? • What role will learners play? 	<ul style="list-style-type: none"> • How much time will be needed to clean up (e.g., put away tech)? • What role will facilitators play?
Departure	<ul style="list-style-type: none"> • How will learners leave the site? • At what time will learners leave? 	<ul style="list-style-type: none"> • How will facilitators leave the site? • At what time will facilitators leave?
Other		

Once you have developed hypotheses to answer these questions, outline your delivery model for each stakeholder. As you gain more information, update the delivery model.



2.6 COMMUNITY ENGAGEMENT

INTRODUCTION:

Community engagement is one of the most salient activities to conduct before launching a project. Community engagement will help you ensure the practicality and sustainability of your project as a result of:

- Sharing information about what to expect from the project
- Sourcing input and ideas from the community on how to improve the project
- Addressing questions or concerns from the community
- Generating support from the community
- Understanding religious and cultural traditions and norms

This worksheet provides guidelines on:

- Types of community engagement
- Organizing community engagement activities



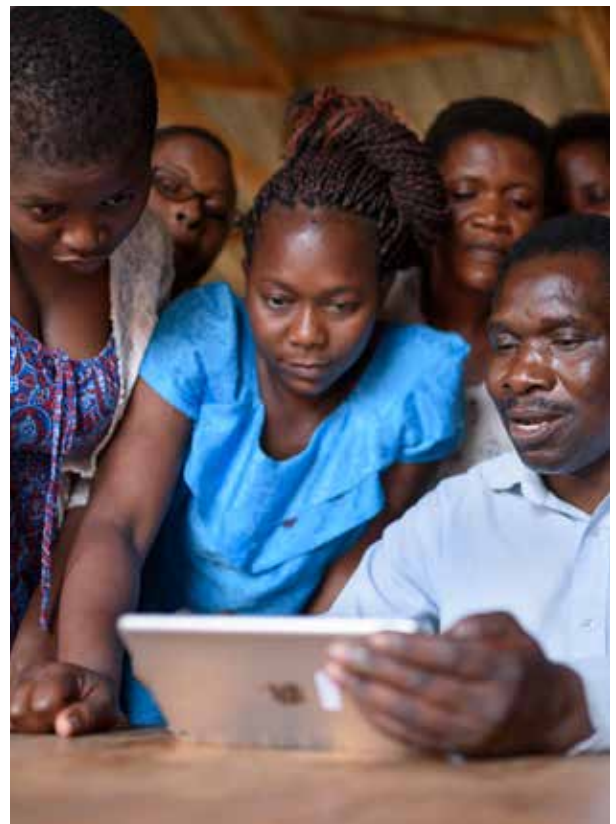
AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: TYPES OF COMMUNITY ENGAGEMENT

Community engagement activities range from different forms of in-person meetings to the dissemination of information through media. Examples include, but are not limited to:

- Sensitizations, which should be conducted prior to the project launch to raise awareness
- Review meetings, which can be conducted throughout the implementation to gather feedback
- Posters / flyers, which can be used to raise awareness or encourage behavioral changes



PART II: ORGANIZING COMMUNITY ENGAGEMENT ACTIVITIES

We suggest that you work with your implementation and site partners to organize engagement activities. The table below provides general guidelines on questions to consider when organizing engagement activities.

1. WHO IS MY AUDIENCE?	2. WHAT TYPE OF ACTIVITY SHOULD I PLAN?
<p>Consider your intended audiences and any cultural norms that may dictate who should be invited or who should receive the messaging. Consider:</p> <ul style="list-style-type: none">• Learners• Parents• Facilitators and/or teachers• Community leaders and organizations (e.g., Mothers' group)• Government leaders• Site leaders and committees (e.g., student management committee, school leaders) <p>Consider which individuals may become sponsors and leaders of your project.</p>	<p>Consider different types of in-person meetings and/or written materials that can be disseminated. In-person meetings are often the most effective for sharing information and addressing concerns. For in-person meetings:</p> <ul style="list-style-type: none">• Create a meeting program, considering norms that may inform activities (e.g., open with a prayer)• Invite the audience and share the meeting program in advance• Conduct a demonstration of the tablet-based program
3. WHAT SHOULD I DISCUSS?	4. WHEN AND WHERE SHOULD I ENGAGE THE COMMUNITY?
<p>The content will vary based on the engagement, but generally plan to discuss:</p> <ul style="list-style-type: none">• Project goals and scope• Community expectations and concerns including any traditional beliefs that may affect the project• Ideas for motivating learner and community engagement throughout implementation• Community sponsorship and leadership of the project <p>For projects that are a part of a research study with a control group, you need to ensure that:</p> <ul style="list-style-type: none">• Communities understand the need and plans for a control group• Learners and their parents are aware of who has been selected for the treatment and control groups	<p>Consider whether the activities need to occur before, during, or after the project launch. For example, sensitizations should occur before the launch to raise awareness. Schedule activities at a convenient time and accessible location for the audience (e.g., after parents return from work).</p>

CASE EXAMPLE: COMMUNITY ENGAGEMENT IN AN IN-SCHOOL IMPLEMENTATION IN LILONGWE, MALAWI

Imagine Worldwide, in partnership with the University of Malawi-Chancellor College and Voluntary Service Overseas (VSO), implemented a tablet-based learning intervention in Lilongwe, Malawi using onecourse software from onebillion. The program was implemented during the 2018-19 and 2019-20 school years in two government primary schools. The goal of the study was to understand how much additional learning over normal instruction learners gained in reading and math with 40 minutes of daily use of the tablet-based curriculum and whether children can attain reading fluency and comparable numeracy skills.

Grade 2 learners, ages 6–10, were randomly assigned independently within the two schools to treatment and control groups. Children in the treatment groups stepped out of different classes on different days of the week to use the tablets at the learning center (a building on the school site where tablet sessions took place). Each day, four sessions were held and two teachers facilitated each session. The program supplemented the instruction that the children already received at school.

The program was implemented in one urban and one peri-urban government primary school. Conditions in the two communities and schools are challenging. Families in both communities are very low income and face food security issues and other poverty-related challenges. Neither school has electricity and class sizes at both schools are very large (up to 100 children). Imagine Worldwide and VSO conducted the following community engagement activities as part of the implementation.



**CASE EXAMPLE (CONTINUED):
COMMUNITY ENGAGEMENT IN AN IN-SCHOOL IMPLEMENTATION IN LILONGWE, MALAWI**

Activity	Sensitization	Review Meeting	Results share-out
What did we do and why?	After we had conversations with select school and community leaders, we wanted to introduce the project to the broader community, answer questions, and generate support. At the first, formal sensitization, we shared a project overview, addressed questions, and attendees tested the tablets. At subsequent sensitizations, we shared project updates and addressed questions and concerns.	We conducted monthly review meetings to solicit feedback from a small group of stakeholders who had regular exposure to the project. These meetings enabled us to learn what was going well and what could be improved as well as address questions.	We met with the community to share results from the program and address questions. Community members were interested to learn how their children progressed over the year and asked many questions.
Who attended?	<ul style="list-style-type: none"> • Parents • Community leaders and organizations (e.g., Mothers Group) • Teachers and school and district leaders • School Management Committee (SMC) • Parent Teacher Association (PTA) 	<ul style="list-style-type: none"> • Teachers • School leaders • Mothers Group • PTA • SMC 	<ul style="list-style-type: none"> • Parents • Community leaders and organizations (e.g., Mothers Group) • Teachers and school and district leaders • SMC • PTA
Where did we meet?	In-person at the school.	In-person at the school.	In-person at the school.
How often did we meet?	2x/year for ~one hour. The first sensitization occurred before launch.	1x/month for ~one hour.	2x/year for ~one hour.

2.7 FACILITATOR SELECTION AND TRAINING

INTRODUCTION:

Facilitators are responsible for empowering learners in the tablet-based learning program and overseeing the delivery of the program. Facilitators can be teachers, parents, or other caring adults, whose general responsibilities are largely dictated by the implementation context but who must be able to supervise and support learners. Because facilitators may not have formal teaching experience or prior experience with technology, it is important to clearly define responsibilities and train facilitators. This worksheet will help you:

- Define facilitator qualifications
- Select facilitators
- Train facilitators

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: DEFINE FACILITATOR QUALIFICATIONS

Regardless of a facilitator's teaching or technology background, facilitators must be caring, responsible adults. Facilitators should also be individuals who are respected by the community, but they do not need to be a senior person within the community.

In general, we recommend that facilitators are:

- Committed
- Empathetic
- Objective
- Respectful
- Strong communicators
- Willing, interested, and confident to learn new skills and open to feedback

Use the questions below to help you think through your core facilitator qualifications. You may have already defined some of these in the [Project Delivery](#) worksheet. You need to distinguish between pre-existing capabilities that facilitators must have and skills that facilitators can develop with training.



TABLE 2.7.1

RESPONSIBILITIES	QUESTIONS FOR CONSIDERATION	PRE-EXISTING CAPABILITIES	TRAINABLE SKILLS
Learning support	<ul style="list-style-type: none"> • Is there a basic level of content knowledge that is required to support learners? • Is there a basic level of digital literacy that is required to support learners? • What type of support does the facilitator need to provide if a child is struggling? 		
Technology support	<ul style="list-style-type: none"> • Is there a basic level of technical expertise that is required to troubleshoot technology issues? • What type of technology support is expected in and out of session? 		
Site management	<ul style="list-style-type: none"> • Is there a basic level of knowledge that is required to operate the site? • What skills are needed for the facilitator to maintain the site operation? • To what extent does the facilitator need to coordinate other facilitators? 		

PART II: SELECT FACILITATORS

Consider different facilitator profiles, including but not limited to, teachers, parents, or community members. Work with your implementation and site partners to recruit potential facilitators using the table from Part I as a rubric. Facilitators who do not have expertise in tablet-based learning programs or the learning material should have a desire to learn.

CASE EXAMPLE: FACILITATOR SELECTION AND TRAINING IN A REFUGEE CAMP IMPLEMENTATION IN COX'S BAZAR, BANGLADESH

The International Rescue Committee, in partnership with Enuma, Imagine Worldwide, and War Child Holland implemented a home and center-based tablet learning intervention in refugee camps in Cox's Bazar, Bangladesh. The program served approximately 600 out-of-school Rohingya refugee children who were 6-12 years old. Children gathered in community centers or facilitator homes four times per week to receive tablet-based literacy and numeracy instruction. Children used either Kitkit School (Enuma) or Can't Wait to Learn (War Child Holland) software for approximately four hours per week. The initial program ran from November 2019 to March 2020.

Selection Process:

Facilitators were recruited from the community. Religious and cultural norms and facilitator safety were paramount in the selection process, and prior teaching experience (with or without technology) was not a requirement. Thus, the 25 facilitators who were hired were all women as they already spent significant time caring for children, spent most of their time at home (where most of the learning sessions would take place), and were known and respected in the community. In addition, all facilitators hired had permission from their families to facilitate (a cultural norm in the community).

Training Process:

Facilitators were trained over two days on basic pedagogical practices, child-protection safeguarding policies, program delivery, and basic technology operation. Each facilitator was prepared to supervise a group of 8-10 children in each session. Throughout the implementation, facilitators met bi-weekly for peer-to-peer support, professional development, and to provide feedback through "Community of Practice" meetings.



PART III: TRAIN FACILITATORS

After selecting facilitators, you will need to onboard them. The amount of dedicated training time will vary by context and topics. We suggest including the following training topics:

TABLE 2.7.2

TOPIC	ITEMS TO COVER (NON-EXHAUSTIVE)
Project overview	<ul style="list-style-type: none">• The vision and mission of the project• Key project components• The purpose of using software to learn• Stakeholders involved in the project and their respective roles
Technology overview	<ul style="list-style-type: none">• Hardware<ul style="list-style-type: none">◦ Overview of the hardware used in the program◦ Basic trouble-shooting and maintenance◦ Hardware demonstrations• Software<ul style="list-style-type: none">◦ Overview of the software curriculum and pedagogy◦ Learner and facilitator user interface demonstrations (e.g., log-ins, use) <p>See the Tech Set-up and Maintenance worksheet for more detail.</p>
Site management and child safety	<ul style="list-style-type: none">• General operating procedures (e.g., open hours, session schedule, facilitator staffing, maintenance, security)• Operating the program safely (e.g., child protection)
Tablet-based learning session facilitation	<ul style="list-style-type: none">• Setting up and concluding sessions• Identifying and supporting struggling learners• Motivating learner participation, progress, and engagement• Using available data reports to monitor progress• Leave extra time to conduct a mock session
Facilitator support and feedback	<ul style="list-style-type: none">• Process to raise challenges• Process to provide feedback

A note on motivating learner engagement

There are many ways that you can motivate learners, from encouraging comments to small rewards for attendance, participation, progress, or other engagement metrics. You may already have existing reward systems or may introduce new rewards (e.g., certificates of participation). Given that strategies vary based on the context, we recommend reviewing any existing reward systems and/or working with site leaders to develop and implement new reward systems. Additional reading on motivational strategies for learners can be found in the [Peace Corps Knowledge Hub](#) and [Educator Resources](#).

CASE EXAMPLE: FACILITATOR TRAINING MATERIALS IN AN IN-SCHOOL IMPLEMENTATION IN LILONGWE, MALAWI

Imagine Worldwide, in partnership with the University of Malawi-Chancellor College and Voluntary Service Overseas (VSO), implemented a tablet-based learning intervention in Lilongwe, Malawi using onecourse software from onebillion. The program was implemented during the 2018-19 and 2019-20 school years in two government primary schools. The goal of the study was to understand how much additional learning over normal instruction learners gained in reading and math with 40 minutes of daily use of the tablet-based curriculum and whether children can attain reading fluency and comparable numeracy skills.

Grade 2 learners, ages 6–10, were randomly assigned independently within the two schools to treatment and control groups. Children in the treatment groups stepped out of different classes on different days of the week to use the tablets at the learning center (a building on the school site where tablet sessions took place). Each day, four sessions were held and two teachers facilitated each session. The program supplemented the instruction that the children already received at school.



Sample leave-behind training materials:

Facilitators were teachers at the school sites who were trained over a three day period. All facilitators were provided a series of leave-behind materials in Chichewa (local language) including the following checklist for facilitating sessions. Facilitators copied the checklist to large flip-chart sheets and hung them on the walls of the learning center as well.

TIMING	ACTIVITY
Before session	<input type="checkbox"/> Ensure that tablets are charged <input type="checkbox"/> Arrange tablets, headphones, and mats in the right places <input type="checkbox"/> Supervise that learners take off shoes before entering the learning site. <input type="checkbox"/> Learners should line up and enter 2-4 at a time
During session	<input type="checkbox"/> Ensure that learners are sitting according to seating plan <input type="checkbox"/> Supervise that learners put headsets on correctly <input type="checkbox"/> Launch the session from the master tablet and select the correct subject and session duration <input type="checkbox"/> Supervise to ensure learners sign into their accounts <input type="checkbox"/> Assist learners who are struggling - not doing, but teaching <input type="checkbox"/> Refocus the attention of learners who are distracted <input type="checkbox"/> Take attendance in the roster
After session	<input type="checkbox"/> Collect tablets and headsets and store appropriately <input type="checkbox"/> Supervise that learners exit in an orderly line <input type="checkbox"/> Ensure that tablets are charging and lock storage cabinet and site at the end of the day

2.8 TECH SET-UP AND MAINTENANCE

INTRODUCTION:

Taking care to set-up and maintain your project technology is vital to the long-term success of your project. Replacing broken technology can be expensive and inconvenient and malfunctioning technology often negatively affects learner and facilitator experiences. Given that implementation and site partners may have varying degrees of exposure to different technologies, it is important to develop guidelines on set-up and maintenance as well as troubleshooting. In addition, make sure that your organization has the necessary back-end systems to track and manage assets especially at scale.

With basic training, facilitators can often play a “first line of defense” for troubleshooting challenges. However, more complex challenges may require additional technical support. You will need to:

- Determine which activities you can troubleshoot in-house and by whom
- Determine which activities you need to outsource to an external technician or the supplier
- Develop a protocol for how tech issues will be raised and to whom

This worksheet includes general guidelines as set-up and maintenance processes will vary by project.

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators



TABLE 2.8.1

TECH	SET-UP	MAINTENANCE AND STORAGE
Software	<p>We recommend working with your software partner, but generally:</p> <ul style="list-style-type: none"> • Upload the software onto the tablet (internet connection likely required) • Test the software for bugs or errors • Create user accounts • Choose data back-up settings 	<ul style="list-style-type: none"> • Facilitators can create or delete user accounts as needed • For freezing, crashing, or other software bugs, troubleshoot by force quitting or restarting the app
Tablets	<ul style="list-style-type: none"> • Check that the tablet is charged • Test the battery life by draining the battery • Turn the tablet on and off • Check for structural issues (e.g., screen cracks) • Check the tablet storage capacity • Adjust the following settings as desired: <ul style="list-style-type: none"> o Volume o Display brightness o Sleep mode o User access/locks o Font size o Privacy o Reset 	<ul style="list-style-type: none"> • Use covers and screen protectors to protect the tablets • Use tablets close to the ground to minimize the breakage risk if dropped • Reset the tablet by powering on / off • Turn off the tablet if overheating • Store in a secure, covered, and dry space and plug in to charge; make sure that cables are not tangled
Headphones	<ul style="list-style-type: none"> • Set the audio to an appropriate level • Check for structural issues with the headset (e.g., ear pads attached) and cable (e.g., not tangled) • Ensure the jack is inserted into the audio appropriate audio port 	<ul style="list-style-type: none"> • Ensure the cable jack is inserted into the appropriate audio port • Plug and unplug headphones to troubleshoot • Store in a secure, dry space so that the headset isn't bent and cables aren't tangled
Servers	<ul style="list-style-type: none"> • Depending on the type of server, the set-up will vary • During and after installation, check that the server hardware is working and the SD and SIM cards are not corrupted 	<ul style="list-style-type: none"> • Store in a dry, covered space • For troubleshooting, it may be appropriate to restart the server. However, determine the source of the error (e.g., server, SIM card, SD card) for specific troubleshooting
Add other tech here		

Depending on the source of power and charging system (e.g., solar panel system), you will likely work with a service provider to set-up and maintain the system. For this reason, the set-up and maintenance for this technology is not included in this worksheet.

For details on tech procurement, please see the [Procurement](#) worksheet.



GREAT JOB!
YOU'VE FINISHED:



PROJECT DESIGN TOOLKIT



PROJECT PREPARATION TOOLKIT



PROJECT LAUNCH, MONITORING, AND IMPROVEMENT: TOOLKIT INTRODUCTION

HOW SHOULD I USE THIS TOOLKIT?

The Project Launch, Monitoring and Improvement toolkit is intended to guide you through planning for the launch day and post-launch monitoring activities.

WHO IS THIS TOOLKIT FOR?

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

HOW IS THIS TOOLKIT ORGANIZED AND WHERE DO I START?

This toolkit is composed of two worksheets. Our suggested approach to completing the toolkit is outlined below.

WORKSHEETS

3.1 LAUNCH DAY

3.2 IMPLEMENTATION MONITORING AND IMPROVEMENT



3.1 LAUNCH DAY

You've designed and prepared for the project and are ready to launch. To ensure that your project has a great start, this worksheet provides guidance on:

- Pre-launch activity checklists
- Launch day programs

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: PRE-LAUNCH ACTIVITY CHECKLISTS

Before launch day, make sure that the following activities have been completed. The checklist should be adapted based on your implementation context.

- Permissions to implement have been received
- Communities have been engaged
- Facilitators have been trained
- Technology is on-site and working
- Learners are aware of their participation and/or are registered
- Other: _____

For projects that are a part of a research study and/or from which data will be collected, check that the following additional activities are completed before launch.

- Ethics approval has been received by the appropriate body
- Participation consent procedures have been followed
- Communities understand the need and plans for a control group (if applicable)
- Learners and their parents are aware of who has been selected for the treatment and control groups (if applicable)
- Other: _____



PART II: LAUNCH DAY PROGRAMS

For launch day, we suggest that you work with your implementation and site partners to create a program. Consider the following:

PROGRAM ACTIVITIES	INVITEES
<ul style="list-style-type: none"> • Stakeholder speeches • Symbolic activities (e.g., ribbon cutting) • Cultural and religious rituals • Tablet session observations 	<ul style="list-style-type: none"> • Learners • Parents • Facilitators and/or teachers • Community leaders and organizations • Government leaders • Site leaders and committees

CASE EXAMPLE: LAUNCH DAY PROGRAM IN AN IN-SCHOOL IMPLEMENTATION IN LILONGWE, MALAWI

Imagine Worldwide, in partnership with the University of Malawi-Chancellor College and Voluntary Service Overseas (VSO), implemented a tablet-based learning intervention in Lilongwe, Malawi using onecourse software from onebillion. The program was implemented during the 2018-19 and 2019-20 school years in two government primary schools. The goal of the study was to understand how much additional learning over normal instruction learners gained in reading and math with 40 minutes of daily use of the tablet-based curriculum and whether children can attain reading fluency and comparable numeracy skills.

Grade 2 learners, ages 6–10, were randomly assigned independently within the two schools to treatment and control groups. Children in the treatment groups stepped out of different classes on different days of the week to use the tablets at the learning center (a building on the school site where tablet sessions took place). Each day, four sessions were held and two teachers facilitated each session. The program supplemented the instruction that the children already received at school.

LAUNCH DAY

Attendees:

Approximately 50 attendees

- Learners
- Community leaders
- Parent Teacher Association
- Student Management Committee
- Mothers Group
- Head Teacher and select teachers
- District Education Manager (government representative)
- Voluntary Service Overseas representatives
- Imagine Worldwide representatives

Program:

60 minute program to kick-off the project

TIME (MIN)	ACTIVITY	RESPONSIBLE ACTOR
10	Welcome, introductions, and remarks	Head Teacher
5	Remarks from community leaders	Community leaders
5	Remarks from Imagine Worldwide and Voluntary Service Overseas	Select representatives
5	Remarks from the District Education Manager	District Education Manager
5	Walk to tablet-based learning session site. District Education Manager ceremoniously hands one learner a tablet	District Education Manager
20	Observe a session in progress	Everyone
10	Closing remarks	Head Teacher

3.2 IMPLEMENTATION MONITORING AND IMPROVEMENT

Implementation monitoring is important to

- Ensure the quality of implementation
- Identify and troubleshoot implementation challenges that affect learning
- Understand when and how to provide additional support and improve the program

Implementation monitoring is especially vital if you are conducting research and/or testing a delivery model for scale. This worksheet provides guidelines on:

- Who conducts monitoring
- How frequently should monitoring be conducted
- What should be monitored
- Using feedback and data from monitoring to improve the program

AUDIENCE:

- Program Directors or equivalent role
- Project Managers or equivalent role
- Software Developers
- Sites leaders, staff, and facilitators

PART I: WHO CONDUCTS MONITORING?

We suggest that project managers, field specialists, or those in equivalent roles at your or your implementation partner organization conduct regular monitoring. You can also train a site leader or facilitator to monitor implementation. If you are conducting research, you may have an independent research monitoring team conduct monitoring visits.

PART II: HOW FREQUENTLY SHOULD MONITORING BE CONDUCTED?

You may start with weekly site visits and adjust to bi-weekly or even monthly based on the support the site needs to deliver the project. For a brand-new project, we recommend weekly monitoring.

If monitoring shows deviations from implementation as intended, this will require discussion at the site to understand the root cause and possible solutions. Additional training and monitoring can be helpful.



PART III: WHAT SHOULD BE MONITORED?

You should monitor that the program delivery policies and procedures are being followed to ensure that learners will benefit from the program. Conduct monitoring through a combination of interviews and observations of the site environment and sessions. Tools such as checklists can help you structure your monitoring visits to ensure that you capture relevant details.

Below is a starter checklist. We recommend monitoring the categories provided even if the components need to be adapted for your context.



TABLE 3.2.1

CATEGORY	SAMPLE COMPONENTS TO MONITOR (NON-EXHAUSTIVE)
Learner experience	<ul style="list-style-type: none"> <input type="checkbox"/> Attendance <input type="checkbox"/> Ability to access and use technology <input type="checkbox"/> Level of engagement (e.g., guessing or random-tapping) <input type="checkbox"/> Approach to resolving challenges with / without facilitator support <input type="checkbox"/> Other: _____
Facilitator experience	<ul style="list-style-type: none"> <input type="checkbox"/> Attendance <input type="checkbox"/> Ability to use technology (e.g., trouble-shooting, use of learner data) <input type="checkbox"/> Learner supervision and support <input type="checkbox"/> Level of engagement <input type="checkbox"/> Ability to operate the site <input type="checkbox"/> Other: _____
Site operation	<p>Environment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Child-friendly and inclusive learning environment <input type="checkbox"/> Functional provisions for parental engagement <input type="checkbox"/> Gender parity in learning activity participation <input type="checkbox"/> Clean and usable and facilities <input type="checkbox"/> Other: _____ <p>Schedule</p> <ul style="list-style-type: none"> <input type="checkbox"/> Frequency and type of deviations from session schedule <input type="checkbox"/> Other: _____ <p>Technology</p> <ul style="list-style-type: none"> <input type="checkbox"/> Frequency and type of technological issues <input type="checkbox"/> Performance of regular technology maintenance <input type="checkbox"/> Other: _____
Other	<p>_____</p> <p>_____</p> <p>_____</p>

PART IV: USING FEEDBACK AND DATA FROM MONITORING TO IMPROVE THE PROGRAM

Monitoring is critical to ensure the quality of implementation and inform decisions on how to continuously improve* the program. With frequent monitoring, it is important to track and communicate program performance against key metrics over time. By using monitoring data and feedback, you will be able to identify areas of the program that need improvement and track how those areas improve over time.

One way to track and communicate program performance with implementation and site partners is through a dashboard. A dashboard of performance against select metrics can help you identify trends, pinpoint challenges, and track improvement once a program change occurs. Your dashboard should track the metrics that you deem most critical for a successful project implementation (these metrics should be aligned with your monitoring checklists).

Below is a sample dashboard that tracks performance against select metrics.



SITE _____				Data for two week period ending on:				Notes for two week period ending on:			
Category	Metric	Target	Average	11/15/2019	11/29/2019	12/13/2019	12/27/2019	11/15/2019	11/29/2019	12/13/2019	12/27/2019
Learner experience	Average attendance rate*	80% +	81%	70%	80%	85%	90%				
	Percent of days learning center (LC) is open**	100%	98%	90%	100%	100%	100%				
	Number of days LC is open	10	10	9	10	10	10				
	% of daily sessions conducted	100%	96%	90%	100%	95%	100%				
	% of daily sessions run at intended length	100%	96%	100%	90%	100%	95%				
Site operation	% of tablets working	100%	100%	100%	100%	100%	100%				
	% of headphones working	100%	100%	100%	100%	100%	100%				
	% of charging units working	100%	100%	100%	100%	100%	100%				
	Did servers work locally consistently over the period?	Yes	N/A	Yes	No	Yes	Yes				
	Was data transmitted to cloud consistently over the period?	Yes	N/A	No	Yes	No	Yes				
Reporting	% data received	100%	98%	95%	100%	100%	95%				
	Bi-monthly project manager report	2x/mo	N/A	Yes	Yes	Yes	Yes				

*Average attendance rate is the total number of learners who have tablet usage data during the data period divided by the total number who should have attended at full capacity. Estimated based on log-ins
 **Percent of days the LC is open out of days the school is in regular session.

95%+ >= GREEN 75%-94% = YELLOW <75% = RED



In our experience, implementation trumps strategy. Even when you plan in great detail and test in the field, there will often be unexpected circumstances that affect the quality of your implementation. Thus, it is critical to conduct implementation monitoring to collect data and feedback that will enable you to continuously improve the program, and ultimately the experience and outcomes for learners.

*If you are conducting research, there may be limitations in the changes you can make to the program given the research design.

CASE EXAMPLE: UNITED KINGDOM INTERVENTION IMPLEMENTATION FIDELITY CHECKLIST

Researchers from the University of Nottingham, together with Apple Distinguished Educator and Early Years Specialist, Marc Faulder, have been implementing the onebillion onecourse math apps in UK primary schools to support the acquisition of basic math skills in children aged 4-7 years. Teaching assistants (TAs) work with a small group of children (up to 10) for 30 minutes a day, for 4 or 5 days a week, over a period of 12 consecutive school weeks. The apps are used as a targeted intervention with children struggling to acquire basic math skills. Children receive the apps in addition to standard whole-class math instruction given by their class teacher. This method of implementation has been evaluated by two published randomized control trials and is highlighted as a promising project in the Education Endowment Foundation’s report on Improving Mathematics in the Early Years and Key Stage 1.

As this project scales, the team has developed a checklist for monitoring the fidelity of implementation within the UK context. The checklist has been derived from a published process evaluation conducted by the Nottingham researchers. Within a trial context, the researchers recommend the checklist is used by evaluators once every 2 weeks that the apps are being used across the duration of the trial. When used in a classroom context, the researchers recommend the checklist is used by the head teacher or math lead, once every school term. The checklist enables deviations from intended implementation to be identified quickly and modified accordingly.

Reference: Intervention checklist for implementation of onecourse math in UK primary schools. Pitchford, N.J. (2019). Personal correspondence.



CASE EXAMPLE (CONTINUED): UNITED KINGDOM INTERVENTION IMPLEMENTATION FIDELITY CHECKLIST

IMPLEMENTATION FIDELITY CHECKLIST

DATE:

SCHOOL:

TA:

WEEK OF INTERVENTION:

LEVEL/ FEATURE	EVALUATION CRITERIA	YES/ NO	ADDITIONAL COMMENTS
----------------	---------------------	------------	------------------------

TA LEVEL

Technical support	Teaching assistant (TA) provides technical support (e.g. headphone volume) to children struggling to use the app/iPad.		
Behavioral management	TA provides behavior management to ensure children are well-behaved throughout the session with no interference from other children in the class.		
Supervision	TA provides constant (e.g. always in the room) and consistent (e.g. focused on app session) supervision to all children working with the apps.		
TA logs session	TA uses session log to record absence / presence of children and other aspects of the session requested in the session log.		

PEDAGOGICAL LEVEL

Pedagogical support Level 1	TA encourages children to work independently through the app. TA does not answer questions for the children on the app. All children should answer questions for themselves.		
Pedagogical support Level 2	TA provides pedagogical support to children requiring additional help with particular topics in the app. Child removes headphones. TA listens to the app section, explains concept to the child, then the child attempts to answer app questions on their own.		
Pedagogical support Level 3	TA includes other resources to explain concepts to children requiring additional help with particular topics in the app.		

CASE EXAMPLE (CONTINUED)

LEVEL/ FEATURE	EVALUATION CRITERIA	YES/ NO	ADDITIONAL COMMENTS
CLASSROOM LEVEL			
Intervention duration	The session lasts for 30 mins. TA stops children 30 mins after all of the children have logged onto the app.		
Dedicated staff member	A dedicated TA delivers the intervention to the same group of children each session.		
Intervention set up	TA has iPads and headphones ready for children to use ahead of the session.		
Dedicated classroom space	The intervention is given in the same dedicated space each session.		
Seating plan	The TA arranges children according to a consistent seating plan each session.		
Accessing individual iPad	All children use the iPad allocated to them each session.		
Children wear headphones	All children wear headphones during the use of the app, or wear their headphones again within 30 seconds of removing them.		
Accessing individual app profiles	All children use their own profile on the app or are redirected to their own profile by the TA within the first 3 minutes of the session.		
Calm environment	The session is conducted in a calm and orderly environment.		
CHILD LEVEL			
Child engagement	Children work through the apps independently and are focused on the app activities. Children are excited to be using the app and seem to enjoy learning with it.		
Learning strategy	All children begin using the app from the next activity in the sequential progression suggested by the app OR children repeat activities that they have already completed for additional practice if they have not passed a test.		
Peer interactions with learning process	Discussions amongst children on how to answer the topics in the app are fine as this may be considered part of the learning process. But it is essential that all children answer questions on the app for themselves. If another child is answering questions for a child the TA steps in and prevents them from doing so.		
Peer support	Children within the intervention group share the success of individual children when they complete a topic.		



GREAT JOB!
YOU'VE FINISHED:



PROJECT DESIGN TOOLKIT



PROJECT PREPARATION TOOLKIT



PROJECT LAUNCH, MONITORING,
AND IMPROVEMENT TOOLKIT

APPENDIX





TABLE 1.1.1 PROJECT DEFINITION

AREAS TO DEFINE	QUESTIONS FOR CONSIDERATION	YOUR RESPONSE
1) Problem statement	<ul style="list-style-type: none"> • What problem are you trying to solve? • What efforts are currently being taken to address this problem? 	
2) Target beneficiaries	<ul style="list-style-type: none"> • Who are your target beneficiaries? • How are they, and their communities, going to be affected by your project? 	
3) Intervention	<ul style="list-style-type: none"> • How do you intend to solve the problem? • What steps are needed? • Why choose a tablet-based learning program? 	
4) Stakeholders	<ul style="list-style-type: none"> • Who are your stakeholders? • How will they respond to your project? Will they support your project? 	
5) Outcomes	<ul style="list-style-type: none"> • What are the measurable results you would like to achieve in the short-term (e.g., 1-2 years)? In the long-term (e.g., 5-10 years)? • How will you measure success? 	
6) Constraints	<ul style="list-style-type: none"> • Are there any risks or constraints? • How will you mitigate those risks or constraints? 	



TABLE 1.2.1 GEOGRAPHY SELECTION

AREAS	QUESTIONS FOR CONSIDERATION	GEOGRAPHY BEING REVIEWED:
Learner demographics	<p>Who is affected by the problem you are trying to solve? Are there particular demographics you want to serve? Consider:</p> <ul style="list-style-type: none"> • Age • Gender • Learners with Special Educational Needs and Disabilities (SEND) • In-school, out-of-school, and/or refugees or displaced learners • Existing level of educational access and achievement • Language of instruction 	
Infrastructure	<p>What is the current state of infrastructure in this geography? Consider:</p> <ul style="list-style-type: none"> • Transportation and accessibility • Power • Water and sanitation • Construction • ICT • Security 	
Stakeholders	<p>Who are the people and/or institutions that you may need to work with? Consider:</p> <ul style="list-style-type: none"> • Government • Community (e.g., Mothers groups) • Parents (e.g., associations) • Educators (e.g., teachers) • Other (e.g., funders, non-profits) 	
Regulatory requirements	<p>What are the regulatory requirements, permissions, and/or approvals needed to work in this geography?</p>	

TABLE 1.2.2 GEOGRAPHY SELECTION

AREAS	QUESTIONS FOR CONSIDERATION	GEOGRAPHY BEING REVIEWED:
Learner demographics	<ul style="list-style-type: none"> • What is your experience working with this demographic? • Are there any risks that impact the effectiveness of the project? • How will you address these risks? 	
Infrastructure	<ul style="list-style-type: none"> • What are the minimum infrastructure requirements for the project? • Does this geography satisfy the requirements? If not, what are the implications for the project? • How will you address these risks? 	
Stakeholders	<ul style="list-style-type: none"> • What is your capability to work with the necessary stakeholders? • Why might stakeholders support or oppose working with you? What support do you need and from whom? • Who will manage the project over time? • How will you address any risks to stakeholder engagement? 	
Regulatory requirements	<ul style="list-style-type: none"> • How will you obtain the necessary permissions to work in this context? • What is the implication for your project if you do not get the necessary permissions and/ or if there are delays in obtaining permissions? 	
Resources required	<ul style="list-style-type: none"> • Do you have the people, time, funds, and expertise to execute this project? • What is your experience working with tech-based programs? • How will you address any gaps in resource requirements? 	

TABLE 1.3.1 SOFTWARE PARTNER SELECTION

CRITERIA	WHAT SHOULD YOU LOOK FOR?
1. CURRICULUM	
Scope	Evaluate whether the curriculum covers the content needed to help learners achieve the target learning outcomes.
Depth	Evaluate whether the curriculum has the number of hours of content needed for learners to achieve the target learning outcomes.
2. EVIDENCE	
Rigor	<p>Check whether any high-quality research has been completed on the effectiveness of the software or program:</p> <ul style="list-style-type: none"> • Were any independent evaluations conducted in addition to any studies produced by the developer? • Have any randomized controlled trials (RCTs) been conducted? • Did the study use a comparison group and present evidence of the similarity of the treatment and comparison groups at the beginning of the study? • Did the study examine attrition bias and present evidence of the similarity of the treatment and comparison groups at the end of the study? • Did the study demonstrate positive effects? <p>Given that most products will not have independent RCTs, determine the level of evidence required for you to feel confident about the effects of the software. See the Nesta Standards of Evidence at the end of this worksheet for guidance</p>
Relevance	Determine how applicable the research is to your implementation context based on similarity with your target beneficiaries (e.g., age, language), planned implementation model (e.g., dosage, site), and other contextual factors (e.g., country or region).
Amount	Consider the number of studies available that demonstrate the consistency of results. Consider adding to the evidence base before implementing a program at scale, using the Nesta Standards of Evidence at the end of this worksheet for guidance.
3. LEARNING EXPERIENCE	
Pedagogy	Review the method of teaching which influences how learners using the software learn (e.g., direct teaching method v. child-directed learning).
Contextualization and inclusivity	<p>Evaluate whether the content, audio, and graphics resemble the learner's place of origin, as well as exposing the learner to new people, places, and experiences. Consider:</p> <ul style="list-style-type: none"> • Language of instruction, including the dialect used • Second language support • Support features for special needs learners

TABLE 1.3.1 SOFTWARE PARTNER SELECTION

CRITERIA	WHAT SHOULD YOU LOOK FOR?
3. LEARNING EXPERIENCE (continued)	
Adaptivity	Adaptive software adjusts the level of difficulty of learning activities based on the learner's performance. This ensures that the activities are at the learner's skill level.
Autonomy	Evaluate how independently a learner can use the software and the level of support needed from an adult.
Learning management	<p>Consider the following features that affect the learning experience:</p> <ul style="list-style-type: none"> • Assessments (e.g., pre- and post-activity quizzes) • Remediation (e.g., when learners incorrectly answer a question, they are given extra practice questions) • Acceleration (e.g., when learners correctly answer a question, they can skip to more challenging questions) • Performance reporting to learners and facilitators (e.g., learners collect stars for completing activities correctly, facilitator dashboard of student performance)
4. OPERATING REQUIREMENTS	
Hardware	Research the hardware (e.g., tablet, mobile, PC) and operating system (e.g., Android, iOS) requirements for the software. Consider the battery life of the tablet device when the software is running.
Online / Offline use	Consider whether the software needs to be connected to the internet or wi-fi for set-up, usage, or maintenance.
Multi-user support	Check the number of learners that can use one software license. Consider whether features vary with a multi-user deployment.
Data management	Review the data security (e.g., encryption), data back-up (e.g., automated back-up to local server), and data exporting features.
5. COST	
Costs	The software costs and incremental set-up or maintenance requirements (e.g., dedicated tech support).

TABLE 1.3.2 SOFTWARE PARTNER SELECTION

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN “MUST HAVE” CHARACTERISTICS	WRITE-IN “NICE TO HAVE” CHARACTERISTICS	SCORE
1. CURRICULUM				
Scope	<ul style="list-style-type: none"> • What content is needed to ensure that learners achieve the target learning outcomes? • Are there content requirements per any regulatory body? 			
Depth	<ul style="list-style-type: none"> • How many hours of content are needed to ensure that learners achieve the target learning outcomes? 			
2. EVIDENCE				
Rigor	<ul style="list-style-type: none"> • What level of evidence do I need to be confident about the effectiveness of the software? • What type of effects does the evidence need to demonstrate? • Does the evidence need to include any independent evaluations in addition to studies produced by the developer? • Does the evidence need to include any RCTs? • Do the research studies need to use a comparison group? 			
Relevance	<ul style="list-style-type: none"> • What similarities does the research need to have with my target beneficiaries (e.g., age, language), planned implementation model (e.g., dosage, site), and other contextual factors (e.g., country or region)? 			

TABLE 1.3.2 (CONTINUED) SOFTWARE PARTNER SELECTION

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN “MUST HAVE” CHARACTERISTICS	WRITE-IN “NICE TO HAVE” CHARACTERISTICS	SCORE
2. EVIDENCE (continued)				
Amount	<ul style="list-style-type: none"> • How many studies need to demonstrate the positive effects of the software? 			
3. LEARNING EXPERIENCE				
Pedagogy	<ul style="list-style-type: none"> • What should the theories behind the teaching be (e.g., direct- instruction, inquiry-based learning)? 			
Context-ualization and inclusivity	<ul style="list-style-type: none"> • What does the language of instruction need to be? • How culturally relevant and age appropriate should content be? • What type of content, visuals, and support does the software need? • Are there any requirements per any regulatory body? 			
Adaptivity	<ul style="list-style-type: none"> • How should the software adapt the learning pathway? • What type of data is required to do so? 			
Autonomy	<ul style="list-style-type: none"> • What support is required from an adult for a learner to use the software? • What digital literacy support is needed? 			
Learning management	<ul style="list-style-type: none"> • What assessments are needed? • What remediation and acceleration supports are needed? • What type of reporting is needed to communicate mastery to learners and to facilitators? 			

TABLE 1.3.2 (CONTINUED) SOFTWARE PARTNER SELECTION

CRITERIA	THOUGHT STARTER QUESTIONS	WRITE-IN "MUST HAVE" CHARACTERISTICS	WRITE-IN "NICE TO HAVE" CHARACTERISTICS	SCORE
4. OPERATING REQUIREMENTS				
Hardware	<ul style="list-style-type: none"> • What operating system should the software require? • What hardware does the software need to be built for? • How much storage capacity and tablet battery life is required to run software? 			
Online / Offline use	<ul style="list-style-type: none"> • What level of internet connectivity is required for set-up, maintenance, and usage? 			
Multi-user support	<ul style="list-style-type: none"> • How many users does the software need to support on a single tablet device? • Do users need to have unique log-ins? 			
Data management	<ul style="list-style-type: none"> • What supports are needed to back-up and recover data? • What data or reports should be available (e.g., usage) and at what level (e.g., child-level)? • Are there any data security and compliance requirements that the software must meet? 			
5. COST				
Cost	<ul style="list-style-type: none"> • What is the software licensing cost? • Are there any incremental set-up or maintenance costs? • How do the costs change as the program scales? 			

TABLE 1.3.3 SOFTWARE PARTNER SELECTION

CRITERIA	Software 1: _____	Software 2: _____
1. CURRICULUM		
Scope		
Depth		
2. EVIDENCE		
Rigor		
Relevance		
Amount		
3. LEARNING EXPERIENCE		
Pedagogy		
Contextualization and inclusivity		
Adaptivity		
Autonomy		
Learning management		

TABLE 1.3.3 (CONTINUED) SOFTWARE PARTNER SELECTION

CRITERIA	Software 1: _____	Software 2: _____
4. OPERATING REQUIREMENTS		
Hardware		
Online/ Offline use		
Multi-user support		
Data management		
5. COST		
Cost		

TABLE 1.4.1 IMPLEMENTATION PARTNER SELECTION

IMPLEMENTATION ACTIVITIES	SAMPLE CAPABILITIES	I HAVE THIS CAPABILITY IN-HOUSE	I NEED EXTERNAL SUPPORT	THIS CAPABILITY IS NOT REQUIRED FOR MY PROJECT
Site selection	<ul style="list-style-type: none"> • Knowledge of and ability to work with site stakeholders and local communities • Knowledge of and ability to obtain permissions to work in site • Other _____ 			
Procurement	<ul style="list-style-type: none"> • Knowledge of procurement regulations in the implementation geography • Procurement and supplier management within the implementation geography • Other _____ 			
Project delivery	<ul style="list-style-type: none"> • Logistics and organization • Coordination of project stakeholders • Other _____ 			
Community engagement	<ul style="list-style-type: none"> • Knowledge of and ability to solicit input and generate support from local communities • Other _____ 			
Facilitator selection and training	<ul style="list-style-type: none"> • Facilitator recruitment and onboarding • Ongoing facilitator training and support • Other _____ 			
Technology set-up and maintenance	<ul style="list-style-type: none"> • Software and hardware set-up and troubleshooting • Software and hardware secure storage • Other _____ 			

TABLE 1.4.1 (CONTINUED) IMPLEMENTATION PARTNER SELECTION

IMPLEMENTATION ACTIVITIES	SAMPLE CAPABILITIES	I HAVE THIS CAPABILITY IN-HOUSE	I NEED EXTERNAL SUPPORT	THIS CAPABILITY IS NOT REQUIRED FOR MY PROJECT
Implementation monitoring	<ul style="list-style-type: none"> • Ensure fidelity of implementation (e.g., conduct weekly monitoring visits) • Outcomes measurement (if needed) • Other _____ 			
Crisis management	<ul style="list-style-type: none"> • Response to urgent issues within the appropriate time • Other _____ 			
Other				

TABLE 1.4.2 IMPLEMENTATION PARTNER SELECTION

IMPLEMENTATION ACTIVITIES	CAPABILITIES REQUIRING EXTERNAL SUPPORT	WHAT IS MY POTENTIAL PARTNER'S CAPABILITY TO SUPPORT THE NEEDED IMPLEMENTATION ACTIVITY?	
		STRENGTHS?	WEAKNESSES?
Site selection			
Procurement			
Project delivery			
Community engagement			
Facilitator selection and training			
Technology set-up and maintenance			
Implementation monitoring			
Crisis management			
Other			



TABLE 2.1.1 PROJECT PLANNING

ROLE	GENERAL RESPONSIBILITIES	NAME(S)
Project Leaders	Strategic decision-making for the project	
Project Sponsors	Funding and/or advocating for the project	
Project Manager	Managing the team, completion of deliverables, and timelines	
Team Members	Completing project tasks. Areas of expertise may include: Design, Research, IT, Education	
Other: _____		

TABLE 2.1.2 PROJECT PLANNING

DELIVERABLES (SAMPLE, NON-EXHAUSTIVE LIST)	DEADLINE
Finalize the budget	
Select the implementation site	
Procure items and services	
Engage the community	
Select facilitators	
Train facilitators	
Conduct launch day	
Establish monitoring processes	
Other: _____	





TABLE 2.1.3 PROJECT PLANNING

TASKS	TIMELINE (START / END DATES)	RESOURCES REQUIRED	OWNER	ASSUMPTIONS AND DEPENDENCIES

TABLE 2.1.4 PROJECT PLANNING

MILESTONES	EXPECTED DATE





TABLE 2.1.5 PROJECT PLANNING

RISK	PROBABILITY	IMPACT



TABLE 2.1.6 PROJECT PLANNING

RISK	MITIGATION



DIRECT COSTS	SUB-CATEGORIES (NON-EXHAUSTIVE)
Personnel	<ul style="list-style-type: none"> • Salaries and stipends directly tied to the project for personnel such as <ul style="list-style-type: none"> o Education technical advisors o IT specialists o Program specialists (e.g., designer, manager) o Research specialists (e.g., evaluators, analysts, managers) o On-site support (e.g., security, community mobilizers, facilitators)
Technology and power	<ul style="list-style-type: none"> • Equipment (e.g., batteries and charging system, solar panels) • Peripherals and accessories (e.g., headphones, tablet covers) • Services (e.g., data) • Software (e.g., licenses, maintenance) • Hardware (e.g., tablets, server)
Site materials and maintenance	<ul style="list-style-type: none"> • Facilitator materials (e.g., attendance registers, flip charts) • Seating (e.g., chairs, floor mats) • Security equipment (e.g., locked cabinets) • Services (e.g., construction, maintenance)
Trainings and workshops	<ul style="list-style-type: none"> • Training materials • Refreshments
Monitoring and evaluation	<ul style="list-style-type: none"> • Accommodation and transportation (for evaluators, if not local) • Ethical approval by the appropriate commissioning body • Evaluator training • Outcome assessments • Reports

TABLE 2.3.1 SITE SELECTION

SITES	SCHOOL	COMMUNITY CENTER	FAMILY HOME
Learners	<ul style="list-style-type: none"> • Site provides access to a large number of learners who are already attending school on a defined calendar 	<ul style="list-style-type: none"> • Site likely has existing programs for the target beneficiaries, but attendance may be voluntary or inconsistent 	<ul style="list-style-type: none"> • Site may provide learning opportunities for the entire family although it may be challenging to reach many learners at once due to home capacities and locations
Facilitators	<ul style="list-style-type: none"> • Trained teachers may be available to facilitate sessions, but may require supplementary pay and/or training 	<ul style="list-style-type: none"> • Site staff may be available to facilitate sessions, although there is likely variability in skillsets • Facilitators may require supplementary pay and/or training 	<ul style="list-style-type: none"> • Parents may be able to facilitate sessions, but additional facilitators may be needed to transport devices between sites • Facilitators may require pay and/or training
Existing site protocols and permissions	<ul style="list-style-type: none"> • Session time needs to fit into the existing school schedule • Site may require that the software curriculum is aligned to set education standards 	<ul style="list-style-type: none"> • Session time needs to fit into existing program schedule • Site is likely flexible with the scope of the software curriculum 	<ul style="list-style-type: none"> • Session time is likely flexible; however communities may have religious and cultural commitments that affect session time • Site is likely flexible with the scope of the software curriculum
Infrastructure and security	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security, but tech can likely be secured onsite 	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security, but the tech can likely be secured onsite 	<ul style="list-style-type: none"> • Site may have varying levels of infrastructure (e.g., connectivity, electricity) • Site may have varying levels of security. If technology is carried from home to home, finding a space for charging and storage will be necessary

TABLE 2.3.2 SITE SELECTION

STAKEHOLDER CHARACTERISTICS AND PERSPECTIVES	
Site goals	<ul style="list-style-type: none"> • What are your goals for the project? What are you hoping to accomplish? • What major challenges does the project help address?
Learners	<ul style="list-style-type: none"> • What is the demographic of learners at the site (e.g., age, gender, language)? • How might learners react to the project? • How many learners attend and how regularly? Are there any attendance challenges?
Facilitators	<ul style="list-style-type: none"> • Who is available and interested to facilitate the program? • What type of training would be required to support the facilitators?
Community	<ul style="list-style-type: none"> • What are community perspectives on education and/or technology-enabled learning? • How would the community react to the project? What might be their major concerns? • How is the community currently involved in the site? How might the community want to be involved in the project? • What are the different characteristics of the community (e.g., language, religion, culture)? How might they affect project delivery?
Other stakeholders	<ul style="list-style-type: none"> • Who else should be involved in these discussions (e.g., government, educators, non-profits, funders, and researchers)? • What would their interests be? What would their biggest concerns be?
SITE CHARACTERISTICS	
Existing site protocols and permissions	<ul style="list-style-type: none"> • What are the site's operating protocols (e.g., daily schedule)? Take me through a typical day for a learner, teacher, staff member, etc. • What permissions or approvals are required to launch the project at the site?
Infrastructure and security	<ul style="list-style-type: none"> • How accessible is the site? How do learners, site leaders, and staff get to the site? • What type of ICT infrastructure does the site have? • What power sources are available (e.g., solar, grid)? • What type of access to water and sanitation is available? • Where and when could learners use the tablets? How much space is available?

TABLE 2.3.3 SITE SELECTION

TOPICS	SITE 1	SITE 2	SITE 3
STAKEHOLDER CHARACTERISTICS AND PERSPECTIVES			
Site goals			
Learners			
Facilitators			
Community			
Other stakeholders			
SITE CHARACTERISTICS			
Existing site protocols and permissions			
Infrastructure and security			

TABLE 2.4.1 PROCUREMENT

CATEGORY	PURPOSE	CONSIDERATIONS
HARDWARE AND ACCESSORIES		
Tablets	Provide learners devices on which to use software	<ul style="list-style-type: none"> • Average lifespan • Battery life and time to charge • Dimensions and weight • Maintenance and durability • Sensitivity to touch • Storage requirements
Tablet covers and screen protectors	Protect tablets	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Maintenance and durability
Headphones	Provide learners access to software audio	<ul style="list-style-type: none"> • Average lifespan • Cable type (e.g., braided) • Jack type (e.g., removable) • Maintenance and durability • Size (e.g., child-sized, adjustable) • Style and comfort (e.g., over the ears, in-ear) • Volume (e.g., adjustable, max. 85 decibels recommended for children)
Servers and/or SIM cards	Store and transmit data as needed	<ul style="list-style-type: none"> • Average lifespan • Dimensions • Storage capacity for data • Installation, maintenance, and durability for server components (e.g., SD card, SIM card)
EQUIPMENT		
Charging equipment (e.g., batteries)	Charge tablets	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Number of charges held • Multiple device charging feature
Power/Energy equipment	Generate power to charge tablets	<ul style="list-style-type: none"> • Average lifespan • Energy type selected (e.g., solar) based on accessibility, intermittency levels, cost, etc. • Equipment (e.g., solar panel, charge controller, power charger) • Installation, maintenance, and durability

TABLE 2.4.1 (CONTINUED) PROCUREMENT

CATEGORY	PURPOSE	CONSIDERATIONS
EQUIPMENT (CONTINUED)		
Storage (e.g., cabinet, locks, transportation backpacks)	Secure tech to prevent accidents or theft	<ul style="list-style-type: none"> • Average lifespan • Dimensions and weight • Installation, maintenance, and durability • Level of security • Protection from the elements (e.g., waterproof)
Room accessories (e.g., chairs, floor mats)	Create a more comfortable learning space	<ul style="list-style-type: none"> • Average lifespan • Comfort level • Dimensions and weight • Maintenance and durability
SERVICES		
Session space construction and maintenance (if needed)	Provide a comfortable space for learners to use tablets	<ul style="list-style-type: none"> • Labor and material cost, including subcontractors • Design cost (space should have sufficient air circulation, light, and rain protection) • Licenses and insurance • Maintenance and durability considering weather • Quality of previous projects • Time required to build



TABLE 2.5.1 PROJECT DELIVERY

STEP	LEARNER	FACILITATOR
Arrival	<ul style="list-style-type: none"> • How will learners arrive at the site? • At what time should they arrive? 	<ul style="list-style-type: none"> • How will facilitators arrive at the site? • At what time should they arrive?
Set-up	<ul style="list-style-type: none"> • How will learners be organized? • What tasks, if any, will learners need to complete to set-up for the session? • From whom will learners receive direction? • How much time will learners need to get organized? • How many learners will attend each session? 	<ul style="list-style-type: none"> • What tasks will facilitators need to complete to set-up for the session? • How will facilitators retrieve and distribute materials or technology? • From whom will facilitators receive direction? • How much time will facilitators need to set-up? • How many facilitators will attend each session? • What should facilitators do if another facilitator is absent?
Tablet-based learning session	<ul style="list-style-type: none"> • What activities will be conducted? In which order? For how long? • How will learners interact with the tech, each other, facilitators or other people during the session? 	<ul style="list-style-type: none"> • What activities will be conducted? In which order? For how long? • How will facilitators interact with the tech, each other, learners or other people during the session? • How will facilitators intervene if a learner is not on task or is struggling?
Wrap-up	<ul style="list-style-type: none"> • How much time will be needed to clean up (e.g., put away tech)? • What role will learners play? 	<ul style="list-style-type: none"> • How much time will be needed to clean up (e.g., put away tech)? • What role will facilitators play?
Departure	<ul style="list-style-type: none"> • How will learners leave the site? • At what time will learners leave? 	<ul style="list-style-type: none"> • How will facilitators leave the site? • At what time will facilitators leave?
Other		



TABLE 2.7.1 FACILITATOR SELECTION AND TRAINING

RESPONSIBILITIES	QUESTIONS FOR CONSIDERATION	PRE-EXISTING CAPABILITIES	TRAINABLE SKILLS
Learning support	<ul style="list-style-type: none"> • Is there a basic level of content knowledge that is required to support learners? • Is there a basic level of digital literacy that is required to support learners? • What type of support does the facilitator need to provide if a child is struggling? 		
Technology support	<ul style="list-style-type: none"> • Is there a basic level of technical expertise that is required to troubleshoot technology issues? • What type of technology support is expected in and out of session? 		
Site management	<ul style="list-style-type: none"> • Is there a basic level of knowledge that is required to operate the site? • What skills are needed for the facilitator to maintain the site operation? • To what extent does the facilitator need to coordinate other facilitators? 		

TABLE 2.7.2 FACILITATOR SELECTION AND TRAINING

TOPIC	ITEMS TO COVER (NON-EXHAUSTIVE)
Project overview	<ul style="list-style-type: none"> • The vision and mission of the project • Key project components • The purpose of using software to learn • Stakeholders involved in the project and their respective roles
Technology overview	<ul style="list-style-type: none"> • Hardware <ul style="list-style-type: none"> ◦ Overview of the hardware used in the program ◦ Basic trouble-shooting and maintenance ◦ Hardware demonstrations • Software <ul style="list-style-type: none"> ◦ Overview of the software curriculum and pedagogy ◦ Learner and facilitator user interface demonstrations (e.g., log-ins, use) <p>See the Tech Set-up and Maintenance worksheet for more detail.</p>
Site management and child safety	<ul style="list-style-type: none"> • General operating procedures (e.g., open hours, session schedule, facilitator staffing, maintenance, security) • Operating the program safely (e.g., child protection)
Tablet-based learning session facilitation	<ul style="list-style-type: none"> • Setting up and concluding sessions • Identifying and supporting struggling learners • Motivating learner participation, progress, and engagement • Using available data reports to monitor progress • Leave extra time to conduct a mock session
Facilitator support and feedback	<ul style="list-style-type: none"> • Process to raise challenges • Process to provide feedback

TABLE 2.8.1 TECH SET-UP AND MAINTENANCE

TECH	SET-UP	MAINTENANCE AND STORAGE
Software	<p>We recommend working with your software partner, but generally:</p> <ul style="list-style-type: none"> • Upload the software onto the tablet (internet connection likely required) • Test the software for bugs or errors • Create user accounts • Choose data back-up settings 	<ul style="list-style-type: none"> • Facilitators can create or delete user accounts as needed • For freezing, crashing, or other software bugs, troubleshoot by force quitting or restarting the app
Tablets	<ul style="list-style-type: none"> • Check that the tablet is charged • Test the battery life by draining the battery • Turn the tablet on and off • Check for structural issues (e.g., screen cracks) • Check the tablet storage capacity • Adjust the following settings as desired: <ul style="list-style-type: none"> o Volume o Display brightness o Sleep mode o User access/locks o Font size o Privacy o Reset 	<ul style="list-style-type: none"> • Use covers and screen protectors to protect the tablets • Use tablets close to the ground to minimize the breakage risk if dropped • Reset the tablet by powering on / off • Turn off the tablet if overheating • Store in a secure, covered, and dry space and plug in to charge; make sure that cables are not tangled
Headphones	<ul style="list-style-type: none"> • Set the audio to an appropriate level • Check for structural issues with the headset (e.g., ear pads attached) and cable (e.g., not tangled) • Ensure the jack is inserted into the audio appropriate audio port 	<ul style="list-style-type: none"> • Ensure the cable jack is inserted into the appropriate audio port • Plug and unplug headphones to troubleshoot • Store in a secure, dry space so that the headset isn't bent and cables aren't tangled
Servers	<ul style="list-style-type: none"> • Depending on the type of server, the set-up will vary • During and after installation, check that the server hardware is working and the SD and SIM cards are not corrupted 	<ul style="list-style-type: none"> • Store in a dry, covered space • For troubleshooting, it may be appropriate to restart the server. However, determine the source of the error (e.g., server, SIM card, SD card) for specific troubleshooting
Add other tech here		

TABLE 3.2.1 LAUNCH DAY

CATEGORY	SAMPLE COMPONENTS TO MONITOR (NON-EXHAUSTIVE)
Learner experience	<input type="checkbox"/> Attendance <input type="checkbox"/> Ability to access and use technology <input type="checkbox"/> Level of engagement (e.g., guessing or random-tapping) <input type="checkbox"/> Approach to resolving challenges with / without facilitator support <input type="checkbox"/> Other: _____
Facilitator experience	<input type="checkbox"/> Attendance <input type="checkbox"/> Ability to use technology (e.g., trouble-shooting, use of learner data) <input type="checkbox"/> Learner supervision and support <input type="checkbox"/> Level of engagement <input type="checkbox"/> Ability to operate the site <input type="checkbox"/> Other: _____
Site operation	<p>Environment</p> <input type="checkbox"/> Child-friendly and inclusive learning environment <input type="checkbox"/> Functional provisions for parental engagement <input type="checkbox"/> Gender parity in learning activity participation <input type="checkbox"/> Clean and usable and facilities <input type="checkbox"/> Other: _____ <p>Schedule</p> <input type="checkbox"/> Frequency and type of deviations from session schedule <input type="checkbox"/> Other: _____ <p>Technology</p> <input type="checkbox"/> Frequency and type of technological issues <input type="checkbox"/> Performance of regular technology maintenance <input type="checkbox"/> Other: _____
Other	_____ _____ _____