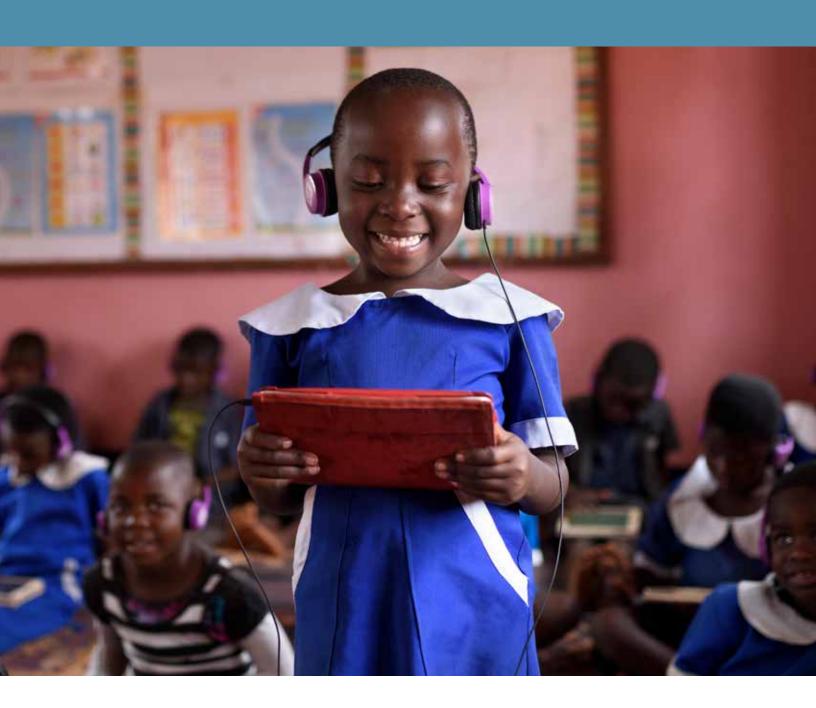
CHILD - DIRECTED TABLET-BASED LEARNING:

Project Preparation Toolkit









ABOUT

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

The authors would like to thank the following individuals who and organizations that supported the development of these toolkits:

- Airbel Impact Lab at the International Rescue Committee
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- Edmund Page (Xavier Project)
- Team4Tech

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 <u>UNIVERSITY OF</u> <u>NOTTINGHAM</u>

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 <u>Nicola Pitchford</u>, 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 <u>VOLUNTARY SERVICE</u> OVERSEAS (VSO)

VSO brings people from different backgrounds, expertise, and experiences together to fight poverty. VSO started the <u>Unlocking Talent Project</u> 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:

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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 highresearch-based software quality. 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 nongovernmental 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:

- 1) PROJECT DESIGN
- 2) PROJECT PREPARATION
- 3) <u>PROJECT LAUNCH, MONITORING,</u> <u>AND IMPROVEMENT</u>

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.



FIVE LESSONS NOT TO MISS

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

- 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!
- 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.
- 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.
- 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.
- 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 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?

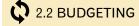
- ✓ Program Directors or equivalent role
- ✓ Project Managers or equivalent role
- Software Developers
- ✓ Sites leaders, staff, and facilitators

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





2.3 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.

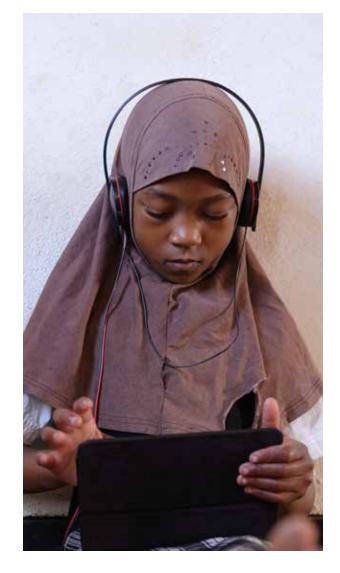






TABLE 2.1.1

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.



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 whe deliverables: Receive ethics approval from the appropriate body Obtain consent to participate in the study Other:	nich data will be collected, consider the following
Next, brainstorm the tasks that must be completed to accomp (e.g., resources required, timelines) that may need to be ref 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.





DIRECT COSTS	SUB-CATEGORIES (NON-EXHAUSTIVE)
Personnel	 Salaries and stipends directly tied to the project for personnel such as 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	 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	 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	Training materials Refreshments
Monitoring and evaluation	 Accommodation and transportation (for evaluators, if not local) Ethical approval by the appropriate commissioning body Evaluator training Outcome assessments Reports

Detail on <u>Procurement</u> and <u>Tech Set-up and Maintenance</u> 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	Site provides access to a large number of learners who are already attending school on a defined calendar	Site likely has existing programs for the target beneficiaries, but attendance may be voluntary or inconsistent	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	Trained teachers may be available to facilitate sessions, but may require supplementary pay and/or training	 Site staff may be available to facilitate sessions, although there is likely variability in skillsets Facilitators may require supplementary pay and/or training 	 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	 Session time needs to fit into the existing school schedule Site may require that the software curriculum is aligned to set education standards 	 Session time needs to fit into existing program schedule Site is likely flexible with the scope of the software curriculum 	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	 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 	 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 	 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	What are your goals for the project? What are you hoping to accomplish?What major challenges does the project help address?	
Learners	 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	 Who is available and interested to facilitate the program? What type of training would be required to support the facilitators? 	
Community	 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	 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 CHARACTERI	STICS	
Existing site protocols and permissions	 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	 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	Head Teacher Deputy Head Teacher	
Meeting with community leaders and school committees	 Head Teacher Parent Teacher Association School Management Committee Mothers Group Other community leaders 	
Meeting with select teachers and learners	Head Teacher or DeputyTeachersLearners	
Tablet demonstration	 Head Teacher Deputy Head Teacher Teachers Parent Teacher Association School Management Committee Mothers Group Other community leaders 	
Tour of site and classroom observation	Head Teacher or DeputyTeachersLearners	
Closing with the Head Teacher and Deputy Head Teacher	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 CHA	ARACTERISTICS AND PE	RSPECTIVES	
Site goals			
Learners			
Facilitators			
Community			
Other stakeholders			
SITE CHARACTERIS	STICS		
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



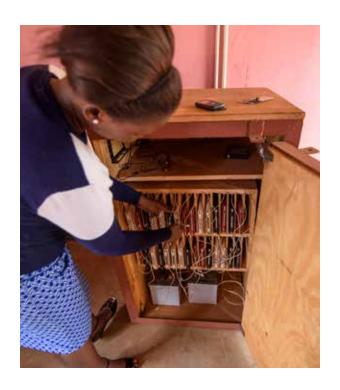


*TCO represents the cost of owning the product from purchase to disposal which includes costs associated with installation, maintenance, and repairs. For example, the TCO for software includes the license fee plus any annual software maintenance fees

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 outof-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	HARDWARE AND ACCESSORIES			
Tablets	Provide learners devices on which to use software	 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	Average lifespanDimensions and weightMaintenance and durability		
Headphones	Provide learners access to software audio	 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	 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	 Average lifespan Dimensions and weight Number of charges held Multiple device charging feature 		
Power/ Energy equipment	Generate power to charge tablets	 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	EQUIPMENT (CONTINUED)			
Storage (e.g., cabinet, locks, transportation backpacks)	Secure tech to prevent accidents or theft	 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	 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	 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:

\$\oldsymbol{\phi}\$ 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





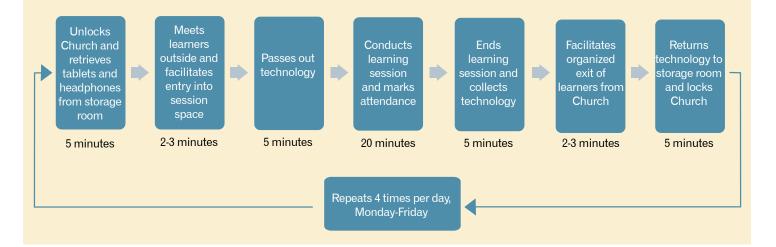


CASE EXAMPLE: PROJECT DELIVERY IN DZALEKA REFUGEE CAMP, MALAWI

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, setup, 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	How will learners arrive at the site?At what time should they arrive?	How will facilitators arrive at the site?At what time should they arrive?
Set-up	 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? 	 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	 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? 	 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	How much time will be needed to clean up (e.g., put away tech)?What role will learners play?	 How much time will be needed to clean up (e.g., put away tech)? What role will facilitators play?
Departure	How will learners leave the site?At what time will learners leave?	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?

Consider your intended audiences and any cultural norms that may dictate who should be invited or who should receive the messaging. Consider:

- 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)

Consider which individuals may become sponsors and leaders of your project.

2. WHAT TYPE OF ACTIVITY SHOULD I PLAN?

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:

- 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?

The content will vary based on the engagement, but generally plan to discuss:

- 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

For projects that are a part of a research study with a control group, you need to ensure that:

- 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

4. WHEN AND WHERE SHOULD I ENGAGE THE COMMUNITY?

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).

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?	 Parents Community leaders and organizations (e.g., Mothers Group) Teachers and school and district leaders School Management Committee (SMC) Parent Teacher Association (PTA) 	TeachersSchool leadersMothers GroupPTASMC	 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 <u>Project Delivery</u> 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	 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	 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	 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	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	 Hardware o Overview of the hardware used in the program o Basic trouble-shooting and maintenance o Hardware demonstrations
	 Software o Overview of the software curriculum and pedagogy o Learner and facilitator user interface demonstrations (e.g., log-ins, use)
	See the <u>Tech Set-up and Maintenance</u> worksheet for more detail.
Site management and child safety	 General operating procedures (e.g., open hours, session schedule, facilitator staffing, maintenance, security)
	Operating the program safely (e.g., child protection)
Tablet-based learning	Setting up and concluding sessions
session facilitation	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	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 <u>Peace Corps Knowledge Hub</u> and <u>Educator Resources</u>.

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	 Ensure that tablets are charged Arrange tablets, headphones, and mats in the right places Supervise that learners take off shoes before entering the learning site. Learners should line up and enter 2-4 at a time
During session	 Ensure that learners are sitting according to seating plan Supervise that learners put headsets on correctly Launch the session from the master tablet and select the correct subject and session duration Supervise to ensure learners sign into their accounts Assist learners who are struggling - not doing, but teaching Refocus the attention of learners who are distracted Take attendance in the roster
After session	 □ Collect tablets and headsets and store appropriately □ Supervise that learners exit in an orderly line □ 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	We recommend working with your software partner, but generally: • 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	 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	 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: o Volume o Display brightness o Sleep mode o User access/locks o Font size o Privacy o Reset 	 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	 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 	 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	 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 	 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 <u>Procurement</u> worksheet.



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