for every child,
learn

**ICT for learning process & tools
Volume I - Schools**

AGA KHAN FOUNDATION

Innovation Unit
New solutions
for thriving societies

ICT for Learning Process and Tools

This ICT for Learning Process and Tools have been designed to enable national governments, sub-national governments, and schools to maximise the return on investment into ICT. This toolkit will enable the users to undertake a process to guide ICT planning and investments by identifying the realities of the education system and schools in their own context, develop concrete, context-relevant solutions to prototype in their schools and education systems, and learn from the prototype and develop 'ICT Actions for Change'.

Volume I contains tools for schools and education providers while Volume II contains tools for sub-national and national governments.

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V O L U M E   I

VERSION 1.0

Contents to ICT for Learning Process and Tools

Introduction to ICT for Learning Process and Tools

The introduction is a two-page document useful for all to understand the background of the toolkit and the 10 domains for ICT for Learning.

Guidance to ICT for Learning Process and Tools

The guidance document is useful for all and provides a short overview of the process, the tools, and how you can adapt these to your needs for Volume I (Schools and Education Providers).

Volume I – Schools and Education Providers

Volume I contains nine tools to help schools to go through the ICT for Learning Process. These are for use by schools or other education providers including Vocational Education and Training Colleges, Tertiary education providers, and other non-school education providers.

Introduction

Step 1

Step 2

Step 3

Step 4

Introduction to ICT for Learning Process and Tools

Introduction

ICT is becoming increasingly important in education globally. While ICT has great potential to support children's learning, education leadership and management, and more effective use of data for student-, school-, and systems-wide learning, it is important to recognise the significant start-up and recurring costs associated with this and that, if not considered within the realities and contexts of different education systems and schools, this investment may not realise the expected outcomes and learning gains expected.

Based on the 10 dimensions identified in the 2018 *'Raising Learning Outcomes: the opportunities and challenges of ICT for Learning'* UNICEF report (see below), this process and these tools have been designed to enable national governments, sub-national governments, and schools to maximise the return on investment into ICT. This toolkit will enable the users to undertake a process to guide ICT planning and investments by:

- Identifying the realities of the education system and schools in their own context with respect to:
  - Risks
  - Student Capability
  - Teacher Capability
  - ICT Infrastructure
  - ICT Ecosystem

- Develop concrete, context relevant solutions to prototype in their schools and education systems

- Learn from the prototype and develop 'ICT Actions for Change'

N.B. While the final Action for Change will consider start-up and recurring costs, this process will not provide for a detailed investment case and business plan.

10
Domains for ICT for Learning

In 2018, the Aga Khan Foundation, Aga Khan Education Services, and Innovation Unit developed a report for UNICEF: 'Raising Learning Outcomes – the opportunities and challenges of ICT for Learning'. In this report, 10 domains were identified which are important to consider and engage with to maximise the impact on learning outcomes when investing in ICT for Learning. Below is a brief description of each.

1

PURPOSE AND PROBLEM SOLVING

To what extent is there clarity around the purpose of introducing technology in education and which learning problem(s) it is helping to solve?

2

STUDENT CAPABILITY

What are the existing and needed technical capabilities of students, and how do these vary across each student population?

3

TEACHER CAPABILITY

Which skills do teachers need to use new technology, and what is the relationship between these skills and broader teacher competency? In particular, how is the ability of teachers to create powerful learning environments/experiences enhanced by technology?

4

STUDENT AND TEACHER AGENCY

How can students and teachers engage as active participants in the introduction and implementation of ICT for learning?

5

TECHNOLOGICAL INFRASTRUCTURE

What are the technical requirements of the technology and are these in place (e.g. power, bandwidth, data security)?

6

IMPLEMENTATION AND CHANGE

What is the role of local leaders and what support do they need to create a culture of innovation and improvement?

7

ENABLING ENVIRONMENTS

What are the conditions that support a thriving learning ecosystem, enhanced by technology?

8

RESOURCES

What is required for effective and sustainable use of ICT for learning, including on-the-ground support capability?

9

COALITIONS

What role might partnership play in 'bundling' solutions to complement and amplify ICT for learning?
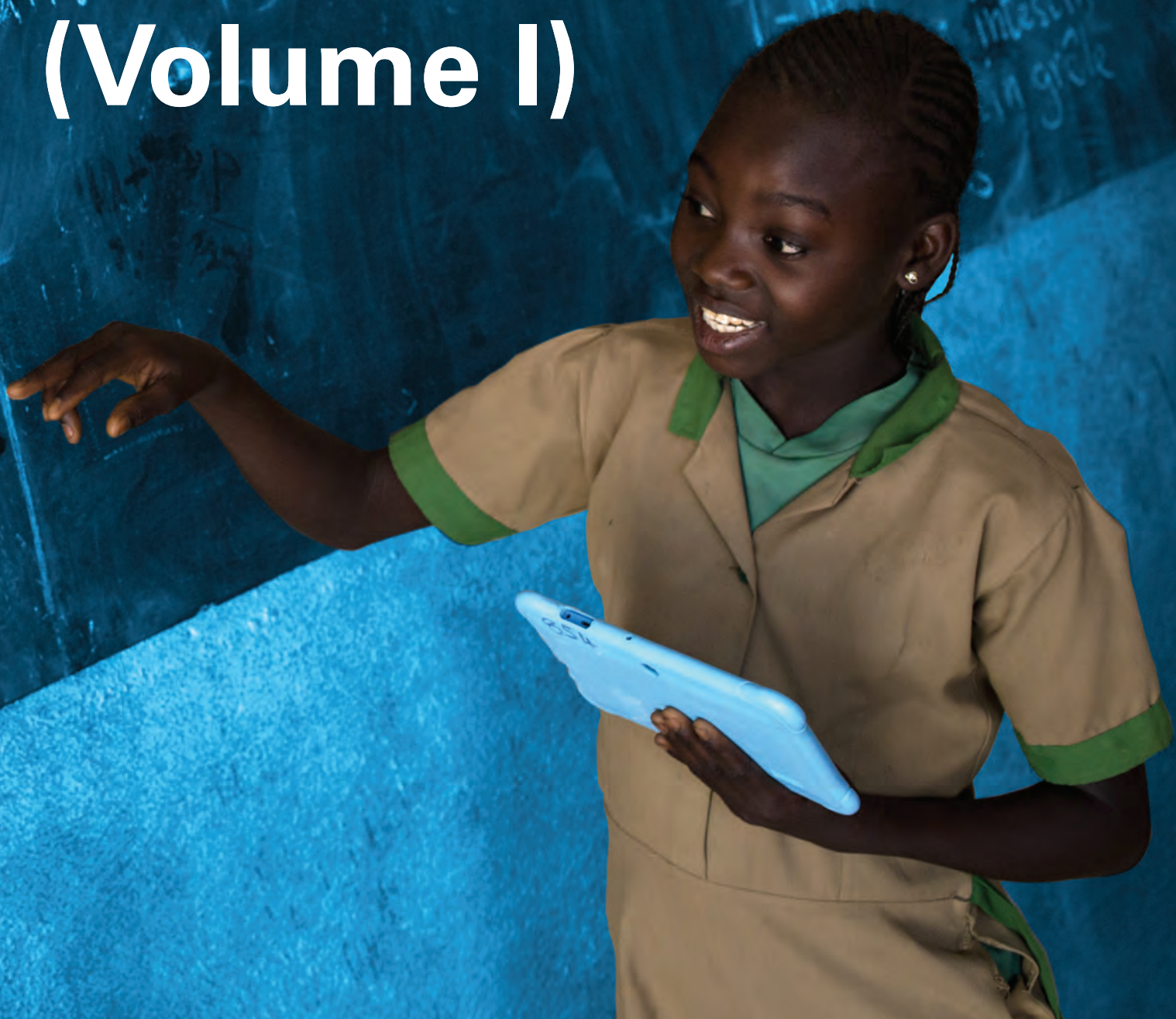
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RISK

Which risks are associated with ICT for learning, and how might we mitigate against them?

Guidance to ICT for Learning Process and Tools (Volume I)

THE PROCESS

The toolkit has been designed to enable national governments, sub-national governments and schools to conduct an inclusive Human-Centred Design (HCD) process. This recognises the need to include diverse stakeholders from across an education ecosystem at all levels to develop and design the most impactful ICT solutions and focus investments on the realities as they exist in any particular education ecosystem.

The process (Figure 1), has four steps and nine tools that can be used together or can be extracted to focus on a particular aspect of ICT for Learning. This is discussed further below. The Toolbox is also separated into two volumes:
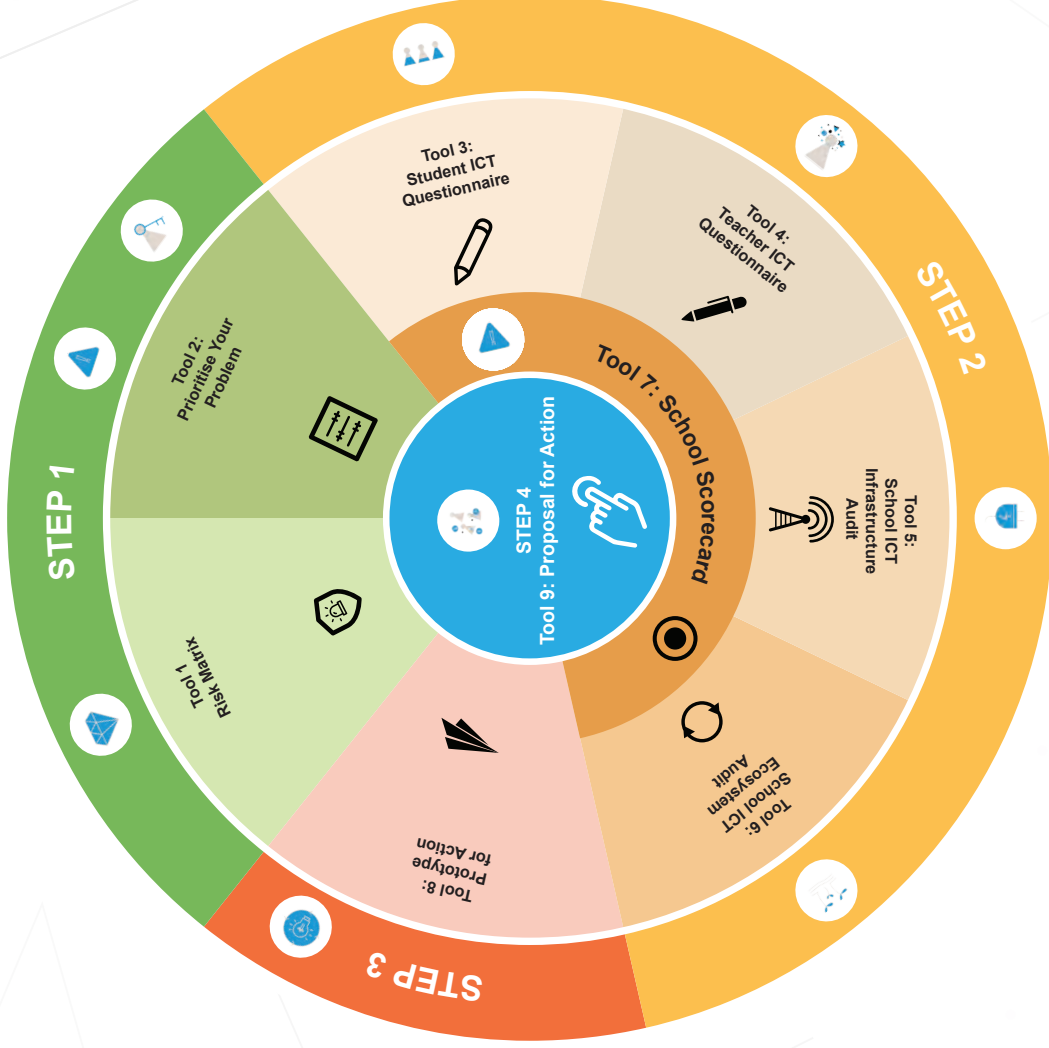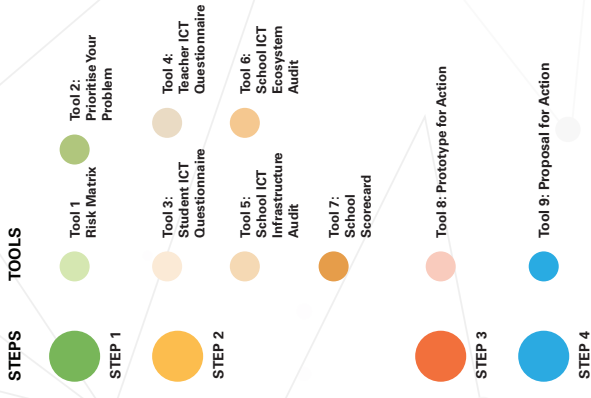
- Volume I – Schools and Education Providers
- Volume II – National and Sub-National Governments

Both of these volumes contain very similar tools, but are adapted to meet the specific needs of working at different levels of the education system. For example, it will be very difficult and expensive for national government actors to personally implement a process focused on teacher and student agency. This is far more relevant and cost-effective for schools to implement. However, it is important that national and sub-national government actors also have agency.

This guidance document is for tools in Volume I.

DIGITAL LEARNING PROJECT MAP: KEY

Colour Scheme

STEPS	TOOLS
STEP 1	Tool 1 Risk Matrix
	Tool 2: Prioritise Your Problem
STEP 2	Tool 3: Student ICT Questionnaire
	Tool 4: Teacher ICT Questionnaire
	Tool 5: School ICT Infrastructure Audit
	Tool 6: School ICT Ecosystem Audit
	Tool 7: School Scorecard
STEP 3	Tool 8: Prototype for Action
STEP 4	Tool 9: Proposal for Action

Process Wheel

STEP 1
- Tool 1 Risk Matrix
- Tool 2: Prioritise Your Problem

STEP 2
- Tool 3: Student ICT Questionnaire
- Tool 4: Teacher ICT Questionnaire
- Tool 5: School ICT Infrastructure Audit
- Tool 6: School ICT Ecosystem Audit
- Tool 7: School Scorecard

STEP 3
- Tool 8: Prototype for Action

STEP 4
- Tool 9: Proposal for Action

ICONOGRAPHY

- Tool 1 Risk Matrix
- Tool 2: Prioritise Your Problem
- Tool 3: Student ICT Questionnaire
- Tool 4: Teacher ICT Questionnaire
- Tool 5: School ICT Infrastructure Audit
- Tool 6: School ICT Ecosystem Audit
- Tool 7: School Scorecard
- Tool 8: Prototype for Action
- Tool 9: Proposal for Action

ICT for Learning Process & Tools
Character Introduction

Meet our digital ICT for Learning Process & Tools, toolkit users, **Mumbi, Yanda, Zubeda and Sarabi.**

They will act as your guide throughout the Toolkit.
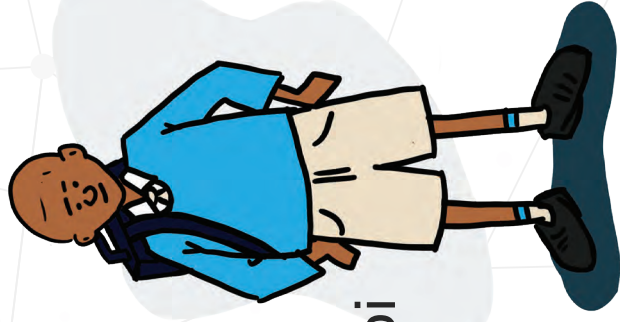
Sarabi
Student

Yanda
Teacher

Mumbi
Head Teacher

Zubeda
Student

STEP 1: Tool 1
RISK MATRIX
Aligned to the Domain 10 – Risks

Who should use this:

To be led by the school leadership in collaboration with teachers and out-of-school stakeholders including parents

Group or individual:
Group

Print size:
A4 (except the worksheet which ideally should be A3)

Description of this activity

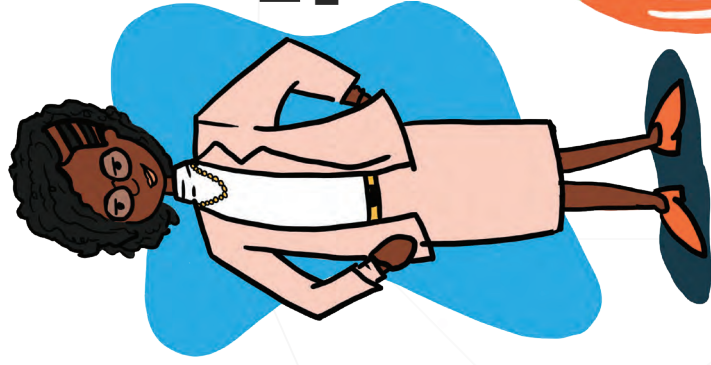This matrix is designed to help you accurately assess and manage risks associated with implementing ICT for Learning. Through a set of activities, you will identify potential risks, rate them based on their impact and likelihood of occurrence and propose mitigation strategies for resolving the risk. This will help you to identify risks associated with action (investing in ICT) and inaction (not investing in ICT).

Instructions For Use

This matrix is designed to help you accurately assess and manage risks associated with implementing ICT for learning in three stages:
- Identify the Risk
- Rate the Risk
- Plan for Mitigation

It is important to note that risks do evolve and change over time and so important to re-engage with this tool on a regular basis as you plan and implement.

Below are descriptors for the three stages. Fill in the responses from the three stages in the worksheet provided.

Stage 1: Identify the Risk

This table provides you with a list of the type of risks you might encounter as you implement ICT and their descriptions. Go through the list with your team and note down those relevant to your situation in the worksheet.

Stage 2: Rate the Risk

This table enables you to analyse and rate the risk identified in terms of its likelihood of occurrence and the consequences of its occurrence; further descriptions and examples of these are provided in the table. Review the list of risks identified in your worksheet and for each write down its likelihood and consequence of occurrence and finally rate it: the rating is calculated from the table; for example, if the likelihood of a risk occurring is 'Unlikely (Not expected to occur)' and its impact is 'Minor', the rate for this risk is 'Low'.

Stage 3: Plan for Mitigation

Use the information from your worksheet for this stage. In the table, prioritize the risks identified and for each think through activities and measures you can put in place to mitigate the risk. Write down resources (physical, human, financial…) you will require to successfully implement your activities and input a timeline for completion and check-ins (review dates).

Once done, take a few moments to reflect on the information collected to better understand and plan your next stages.

Stage 1: Identify the risk

Type of Risk	Description of risk
User characteristics	Fear of adoption of ICT in learning; that it may make the user obsolete
	Lack or poor ICT skills and expertise by teachers
	Lack or poor ICT skills and expertise by students
Funding	High cost of ICT installation and maintenance
In learning	Disruptive to student learning as it may shift focus from instructor
	Over-dependence on ICT
	Teachers not enthusiastic about the changes and integration of supplementary learning associated with bringing computers into their teaching practices
Infrastructure	Inadequate and outdated computing devices
	Unreliable power supply
	Weak or no network connectivity
	Short tech life-span; devices and software obsolete regularly
Health and Safety	Correct and safe use of ICT; equipment placement, lighting, ergonomics
	Disposal of ICT materials; e-waste disposal
Security	Physical security: Damage, loss or theft of devices
	Software security: Malware, threats and vulnerabilities
Online security and child safeguarding	Data privacy concerns; personal information exposed online
	Exposure to unwelcome and inappropriate content
	Participation in risky online communication and behavior
	Cyberbullying (willful and repeated harm inflicted through electronic devices)
	Mental health concerns, e.g. depression, isolation, drug and alcohol abuse, loneliness and self-harm; from exposure, participation and contribution to harmful online content.
Inaction. Non-implementation of ICT	Fear of failure
	Procrastination; postponing implementation for later dates.
	Playing it safe; overly cautious of implication of ICT
	Bureaucracy; inhibiting system
Others. Specify	

Stage 2: Rate the Risk

LIKELIHOOD	CONSEQUENCES				
	NEGLIGIBLE	**MINOR**	**MODERATE**	**MAJOR**	**SEVERE**
	A **NEGLIGIBLE IMPACT** on implementation, which should be possible to be handled at the operational level.	A **MINOR IMPACT** on implementation. It could involve such things as: · Minor delays or failure in providing services or achieving objectives · Minor dissatisfaction of users · Minor damage to reputation · Minor adverse financial impact	A **MODERATE IMPACT** on implementation. It could involve such things as: · Significant delays or failure in providing services or achieving key objectives · A minor breach of information security or probity which is recoverable · Limited dissatisfaction of users · Exposure to minor criticism and adverse publicity · Short term damage to reputation which is easily recoverable · Moderate adverse financial impact	A **MAJOR IMPACT** on implementation. It could involve such things as: · Major delays or failure providing services or achieving key objectives · A major breach of information security or probity which raises questions publicly · Significant dissatisfaction of clients and stakeholders · Exposure to significant criticism and adverse publicity · Significant damage to reputation, which takes years to restore · Significant adverse financial impact · Breach of legal or contractual obligations	A **SEVERE IMPACT** on implementation. It could involve such things as: · A critical business failure resulting in non-achievement of key business objectives · An extensive breach of information security or probity, which compromises integrity · Extensive loss of customer support · Exposure to extensive criticism and adverse publicity · Extensive damage to reputation, which could be irrecoverable · Extensive financial damage · Extensive breaches of legal or contractual obligations
Almost Certain Expected to occur in most circumstances	Moderate	Moderate	High	Very High	Very High
Likely Will probably occur in most circumstances	Moderate	Moderate	High	High	Very High
Possible Could occur at some time	Low	Moderate	High	High	Very High
Unlikely Not expected to occur	Very Low	Low	Moderate	Moderate	High
Rare May occur only in exceptional circumstances	Very Low	Low	Moderate	Moderate	High

Worksheet

#	Type of Risk	Description of Risk	Risk Rating		
			Impact	Likelihood	Rate

Step 3: Plan for Mitigation

#	Description of risk, in order of priority (Very High to Very Low)	How to mitigate the risk. *Describe activities or steps you would take to mitigate the risk*	Resources. *What or who do you need to engage to implement your strategy*	Timeline. *Input review and completion dates*

Reflection

Based on your analysis of the risks in the previous activities, reflect on the following:

NB: You will review these risks further in Step 4 when developing your proposal for action. This tool may be revised as you move along your ICT implementation journey and new insights are gathered.

Reference reads:
The State of the World's Children 2017

- **What will enable us to mitigate the risks?**

- **What would prevent us from mitigating the risks?**

- **What else should we bear in mind?**

- **Who should we make aware of these risks? Why?**

STEP 1: Tool 2
PRIORITISE YOUR PROBLEM
Aligned to Domain 4 – Student and Teacher Agency

Who should use this :
School or other education provider

Group or individual:
Group or individual, but ideally done as a group

Print size:
A4 except for the COIN synthesis framework, which should ideally be printed as big as possible

Developed by:
Innovation Unit and AKF for UNICEF

Description of this activity

Here you will learn about the concept of 'human-centred design' and some core principles to keep in mind when applying it to your work. You will then find two human-centred design activities that will help you to discover more about the learning needs and challenges of students and teachers, so that you can define the learning challenges that ICT needs to solve.

WHAT IS HUMAN-CENTRED DESIGN (HCD)?

Human-Centred Design is an approach to solving problems that involves people, ideally 'end users', in all aspects of the process. By engaging people in identifying the problem and its likely causes, coming up with ideas for possible solutions and then testing and evaluating the ideas, we have a greater chance of developing a robust solution that meets their needs.

STIMULATING POSSIBILITIES
Through researching the lives of students and teachers

+

INCUBATING SOLUTIONS
Through collaboratively generating ideas and prototypes

=

Projects and practices that respond to the needs and ambitions of students and teachers, and are more likely to make a difference

In Human-Centred Design projects, the views and experiences of end users (such as students and teachers) is vital. Involving them in each stage of a project will help you to test any assumptions you might have, understand more about the underlying causes of issues, bring more creative and fit-for-purpose ideas into the pool of possibilities, and make sure that your project really brings about better outcomes.

SOME KEY PRINCIPLES OF HUMAN-CENTRED DESIGN:

· **Be clear about what you want to learn about**
In order to make the most of your time with students and teachers, and get the best outcome from any research or design you do with them, make sure you have a clear sense of what you would like to learn. How can they be involved in a way that has the greatest benefit - for the work and for them as humans?

· **Identify the right people**
When involving teachers and students, think about the types of people that will help you learn the most. Often, inviting quite diverse people to participate can bring about the most useful insights, as gives you a broader 'slice' of users.

· **Listen without judgement**
It is vital that, when working with people in Human-Centred Design processes, you focus on listening to their thoughts instead of trying to address them or making judgements about their experiences. We must put our opinions to one side and put our effort into understanding their perspectives.

· **Ask great questions**
At points and in the moment, it will be important to ask questions in order to clarify what you are learning and delve deeply into issues you think need more time. Use open questioning such as 'please can you tell me more about...?' or 'can you tell me more about how that works?'

· **Keep an open mind and trust the process**
There will be times when what you hear or see is in conflict with what you believe to be true, or what you think is the best strategy to pursue. At points like this we must remember that, although our own experience and knowledge is important, Human-Centred Design is a collaborative process in which the views of others are just as valuable. Very rarely are any of these right or wrong – but the Human-Centred Design process itself will help everyone involved to bring these views together and clarify which insights and ideas show the most promise of having the greatest impact for the people you are working on behalf of.

PREPARING FOR INTERVIEWS WITH STUDENTS AND TEACHERS

In this activity, you will be undertaking some Human-Centred Research with students and teachers, in the form of exploratory interviews. The purpose of these interviews is to understand more about their current experiences of learning and schooling, and in some cases their lives beyond school, so that you are able to clearly identify the challenge that ICT solutions need to solve, or opportunities they must respond to.

In order to do this, there are a few things you need to prepare first.

1. **Recruiting research participants:**
Who will you interview and how many students or teachers do you need? Each team member should do an interview with at least one teacher and one student. Together, think about your students and teachers: without being too scientific, who might you identify in order to get a broad representation of experiences and capabilities?

2. **Identifying any specific learning goals:**
Over the next pages you will find some interview questions that can help, but there may be some specific things you want to explore that aren't included here. If so, add them in!

INTERVIEW GUIDE

INTRODUCTION
Here you will find a series of interview questions and worksheets that can help you undertake some human-centred research with students and teachers, focused on building a picture of their learning capabilities and challenges.

Time: 30 minutes minimum per person

Materials: this guide, pens, post-it notes or extra paper to write or draw on

Protocol: Explain to your interviewee what the purpose of the session is, and the sorts of things you are interested in finding out. There are parts of this guide which you, as the researcher, may wish to hold onto and write/make notes throughout the course of the interview. There are also some pages that you might like to share with your interviewee or ask them to draw on. Opening up the research materials in this way helps to make their thinking visible, and allows you to ask more questions of them if something makes you curious.

When conducting these interviews, remember the principles of human-centred design: keeping these in mind will help you gain the richest possible insights!

DRAW YOURSELF

ABOUT ME

NAME:

STUDENT OR TEACHER?

YEAR LEVEL OR YEARS OF EXPERIENCE:

WHO IS IN YOUR FAMILY?

FAVOURITE WEEKEND ACTIVITY:

WHAT DO YOU DREAM OF FOR THE FUTURE?

MOST SIGNIFICANT LEARNING EXPERIENCE
Thinking about a time when you had the biggest learning experience of your life in or out of school...

What was your most significant learning experience?

Who was involved?

What happened?

Where did it happen?

Why was it significant? What made it so powerful, on reflection?

LIFE AT SCHOOL - STUDENT QUESTIONS

Describe school in three words:

- -

What does it mean to be good at school?

- -

What do you find hard at school? Why?

- -

What parts of school do you look forward to the most? Why?

- -

What does your family think about what you do at school?

- -

What helps you to do well?

- -

What are you good at outside of school?

- -

LIFE AT SCHOOL - TEACHER QUESTIONS

Describe school in three words:

- -

What does it mean to be successful as a teacher?

- -

What parts of teaching do you find the hardest? Why?

- -

What helps you to do your best work as a teacher?

- -

What do you enjoy doing outside of school?

- -

WHAT WOULD YOU CHANGE?

If you could change one thing about schooling, learning or teaching, what would it be?
Draw it...

What would the benefits of that change be?
Draw it...

AMBITIONS FOR THE FUTURE - STUDENT QUESTIONS

What would you like to be or do when you leave school? (It doesn't have to be one thing, and doesn't have to be a job!)

1.

2.

3.

What skills do you think are needed in order to do these things? What would it take to be successful?

1.

2.

3.

How do you learn about or find out more about the things you want to do or be when you are older? (e.g. school, books, friends, clubs…)

1.

2.

3.

AMBITIONS FOR THE FUTURE - TEACHER QUESTIONS

What are the top three skills you think young people will need when they leave school?

1.

2.

3.

On a scale of 1 to 10 with 1 being not at all and 10 being very, how prepared do you feel to teach these skills? What about your colleagues?

1.

2.

3.

What would make you feel more confident and capable? Or what might your colleagues need to feel the same way you do in these areas?

1.

2.

3.

ANALYSING YOUR FINDINGS

INTRODUCTION

Here you will find a short synthesis activity to help you make sense of what you have learned from your interviews. This activity should be completed as a group, with anyone who interviewed students or teachers.

Time: 1 hour for student insights, 1 hour for teacher insights

Materials: your interview notes, this guide, pens, post-its and any other data you have about student and teacher learning at your school.

Protocol: The template on the next page can be used as a framework to collectively organise what you have learned from your research, and ideally should be pinned to a wall.

1. Sitting in a circle, each person should tell a brief story (max. 5 minutes) about the student or teacher they interviewed, starting with a brief description of who they are and what they are like, and then taking the group through what you heard from them in the interview.
2. While one person is talking, everyone else should use post-its to note down any compelling challenges, opportunities, insights and needs they hear.
3. Take 2 minutes for clarifying questions and then, as a group, put your post-it notes onto the framework on the wall; organising according to whether the note represents a challenge, opportunity, insight or need.
4. Repeat the process until everyone has shared their stories
5. Consider any other research evidence being presented - for example, student surveys - and add insights from these sources onto the wall too.
6. Together, gather around the template on the wall and look at the post-its containing your analysis of the interviews and see if you can group together any notes that deal with similar themes or issues. You might group together post-its that share the same perspective on a topic, and you might also group post-its that address the same topic but take divergent perspectives on it. Put a heading on each group of post-its so it is clear what each group of insights is surfacing.
7. Once all the insights have been grouped, look across the headings and have a group conversation about what has been surfaced. Do these higher level 'key' insights feel right, based on your research, and what you heard from others? Next you will need to make some decisions about what to focus on.

THE 'COIN' SYNTHESIS FRAMEWORK

CHALLENGES
What makes things difficult? What challenges would they like to solve, and what might we like to solve for them?

OPPORTUNITIES
What is working well? What could be made better? What motivations or ambitions can we build from?

INSIGHTS
What challenges our assumptions? What gives us clues about new approaches or possibilities?

NEEDS
What do people say they need? What do we think they might need? What needs aren't being met?

PRIORITISED PROBLEMS
From your COIN synthesis, consider, what are the key and most important problems related to:

LEARNING OUTCOMES
What are the key challenges and opportunities related to student learning outcomes?

LEARNING ENVIRONMENT
What are the key challenges and opportunities related to learning environments?

DISCONTINUING THE PROCESS

If ICT does not provide the opportunity to solve these problems, or isn't relevant, this is the point at which you should discontinue this process.

This might be because:

· You do not yet have a vision for learning in place and technology can't help you solve this.
· There are too many competing priorities and you won't be able to dedicate enough time to properly understanding your learning needs, auditing capability, undertaking an iterative process to test (prototype) possible ICT solutions before developing a proposal for action and case.
· Focusing on analogue teacher practice is a quicker way to ensuring outcomes for students continue to improve.

· Before moving on to the Step 2 of this process, the group that has been involved in understanding more about the challenges and opportunities of ICT4Learning should have a final review discussion and make a decision as to whether they will continue/discontinue with the process.
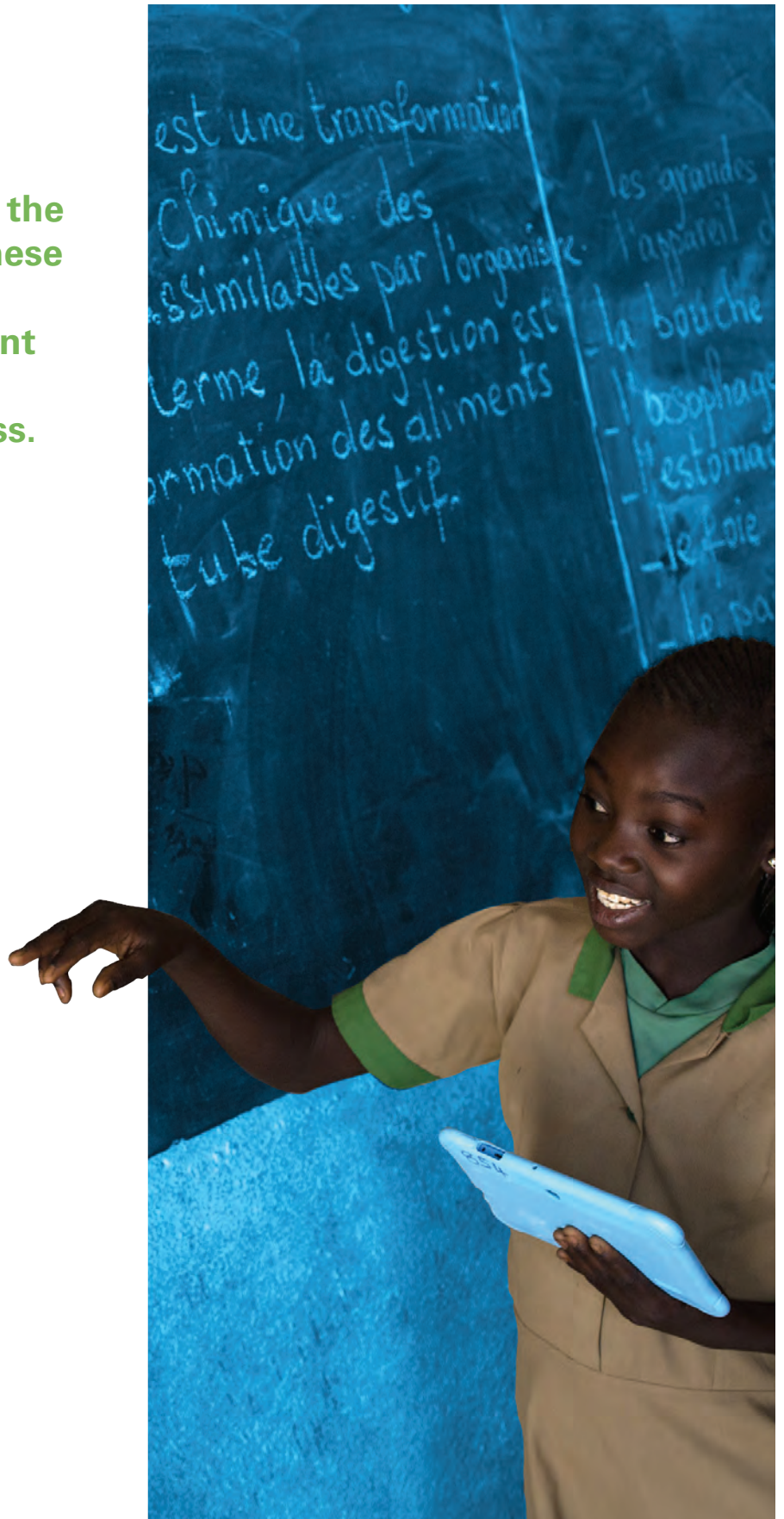
STEP 2: Tool 3
STUDENT ICT QUESTIONNAIRE
Aligned to Domain 2 – Student Capability

Who should use this:
School or other education provider

Group or individual:
Individual

Print size:
A4

Informed by:
European Schoolnet

Instructions for use

· The following survey can be administered to students above 10 years of age. For students below this age, teachers and educators could consider reading the questions to students and providing additional explanations when required.
· Instructions for use by students completing the survey individually are included within the survey.
· Like with all surveys, choosing an appropriate sample is important. Some guidance is provided on the following page.

STUDENT CAPABILITY: DIAGNOSING STUDENT STARTING POINTS

STUDENT QUESTIONNAIRE

A questionnaire designed to understand students use of technology and the Internet, at school and outside of school.

SAMPLING FACTORS TO ATTEND TO:

· Age
· Gender
· Cultural background
· Current academic level
· Positive /negative attitude towards school
· Family situation
· Learning preferences
· Well understood / not understood by teachers
· Friendship group
· Extrovert / introvert
· Strong /Weak relationship between school and parents

Consider:
How many students would you need to survey in order to ensure a diverse sample?

USING THE DIGITAL STUDENT QUESTIONNAIRE

INSTRUCTIONS FOR TEACHERS

· Select a diverse sample of 20 students to complete the questionnaires.
· Have students complete their individual questionnaires by checking one box per category:
· For example, under "Access", for mobile phones at home, students should select 1 of 3 responses: "No" or "Yes, without internet" or "Yes, with internet".
· Ensure that the "Number of students responding" on the "Student Data Input" page is equal to the "Total Number of Responses" under each category of question:
· If they are not equal, the "Total Number of Responses" will turn red.
· If the "Total Number of Responses" is red, use the totals under each question sub-category to find which sub-question is missing a response. Then go through the questionnaires to find which student missed the response. Ensure that the student responds to the questionnaire properly.
· Averages for each question on the "Student Summary" and "Student Score Card" will be calculated automatically and do not need to be adjusted.

USING THE DIGITAL STUDENT QUESTIONNAIRE

INSTRUCTIONS FOR STUDENT

STUDENT QUESTIONNAIRE

NAME OF COUNTRY :

· In this questionnaire you will find questions about yourself and your use of computers and the internet at school and out of school. Some questions ask for facts while others ask for your opinions.
· All responses are anonymous and treated in the strictest confidence; no individual or school will be identifiable in the published reports.

INSTRUCTIONS FOR USE

· Read each question carefully and answer as accurately as possible.
· Ask for help if you do not understand something or are not sure how to respond.
· Each question is followed by a number of possible answers. In some cases, only one answer has to be chosen; in others, you can choose several.
· For each question, read carefully the indications on the number of possible choices and then click accordingly on the box(es) next to the answer of your choice.

Age:

Number of years of schooling:

Gender:

ACCESS

Which of the following are available for you to use easily at home, in the community (e.g. at friends' or family member's home, in a public library or an Internet café) and at school? Tick as applies for each column area (i.e. Home, Community, and School).

	HOME			COMMUNITY			SCHOOL		
	No	Yes, without internet	Yes, with internet	No	Yes, without internet	Yes, with internet	No	Yes, without internet	Yes, with internet
Mobile phone	○	○	○	○	○	○	○	○	○
Computer (desktop, laptop, etc)	○	○	○	○	○	○	○	○	○
Tablet (Netbook, mini notebook, etc)	○	○	○	○	○	○	○	○	○
Other media	○	○	○	○	○	○	○	○	○

EXPERIENCE AND USE

How often do you do the following?

	HOME				SCHOOL: INDIVIDUAL LEARNING				SCHOOL: GROUP LEARNING			
	Never	Once in a month	Once a week	More than once a week	Never	Once in a month	Once a week	More than once a week	Never	Once in a month	Once a week	More than once a week
Sending and reading email messages	○	○	○	○	○	○	○	○	○	○	○	○
Searching different sources online for information and learning about a particular topic you're interested in	○	○	○	○	○	○	○	○	○	○	○	○
Engage in recreational activities (play online games, watch media online, download music)	○	○	○	○	○	○	○	○	○	○	○	○

EXPERIENCE AND USE

How often do you do the following?

	HOME				SCHOOL: INDIVIDUAL LEARNING				SCHOOL: GROUP LEARNING			
	Never	Once in a month	Once a week	More than once a week	Never	Once in a month	Once a week	More than once a week	Never	Once in a month	Once a week	More than once a week
Make presentations using interactive tools	○	○	○	○	○	○	○	○	○	○	○	○
Use Microsoft Office software (Word, Spreadsheet, Powerpoint)	○	○	○	○	○	○	○	○	○	○	○	○
Use the internet for social networking (Facebook, chat sites, Instagram)	○	○	○	○	○	○	○	○	○	○	○	○

CONFIDENCE

How confident are you using ICT?

	NOT CONFIDENT	SOME CONFIDENCE	VERY CONFIDENT
For personal use	○	○	○
For learning	○	○	○

THANK YOU
FOR COMPLETING
THIS QUESTIONNAIRE

STUDENT CAPABILITY
Making sense
of the data

The following protocol may be helpful in cleaning and analysing the data you receive from the student questionnaire:

1. Enter the data (if paper questionnaires were completed)
2. Clean the data
3. Analyse the data
4. Present the data

STUDENT QUESTIONNAIRE

1. ENTER THE DATA

It's important that you standardise the point of entry and check the importance of it. By standardising your data process, you will ensure a good point of entry and reduce the risk of duplication.
You might like to use a program such as Microsoft Excel (or equivalent).

2. CLEAN THE DATA

Data cleaning is the process of ensuring that your data is correct, consistent and usable.
In order to clean the data, you need to identify errors in data entry and any duplicates, since this will help you save time when analyzing data.

3. ANALYZE THE DATA

The results obtained through the analysis process are intended to suggest conclusions and support decision-making. Sorting data is an integral part of data analysis. Sorting data helps you quickly visualize and understand your data better and organize and find the data that you want. This will enable you to group, tally/total and summarize data. If using Microsoft Excel, the Quick Analysis tool makes it possible to analyze your data quickly and easily using different Excel tools.

4. PRESENT THE DATA

Although there are many ways to communicate your data, charts are often used to depict data pictorially. Charts highlight the notable points in the data so that your audience can quickly grasp what you want to project in the data. If using Microsoft Excel, charts can be used to make a graphical representation of any set of data. You also may like to summarise your finding as per the following page:

SCHOOL NAME:

DATA SUMMARY

ACCESS:

At home, our students can...
(complete this sentence)

In the community, our students can…
(complete this sentence)

At school, our students can…
(complete this sentence)

Experience and use:

Our students are most likely to use ICT to...
(complete this sentence)

The major difference between ICT use in the home and at school for our students is…
(complete this sentence)

Experience and use:
Our students are (complete this sentence)…

confident in using ICT.

Considering the results of the survey, how would you assess the ICT capability of students at your school:

STEP 2: Tool 4
TEACHER ICT QUESTIONNAIRE
Aligned to Domain 3 – Teacher Capability

Who should use this:
School or other education provider

Group or individual:
Individual then group

Print size:
A4 for Teacher Questionnaire
A3 or A2 if possible for Maturity Matrix

Informed by:
The European Framework for the Digital Competence of Educators (DigCompEdu)

Instructions for use

· Ask teachers to complete the teacher questionnaire individually. Ideally, you would administer the questionnaire to each teacher in your school.
· Utilising the results from the questionnaire, work through the maturity matrix with a school leader (as a school leadership team) to assess digital competence and areas for development.
· Identify and decide the specific steps to take to boost competence at the stage they are currently at.
  1. Newcomer and Explorer educators assimilate new information and develop basic digital practices.
  2. Integrator and Expert educators further expand and structure on their digital practices.
  3. Leader educators pass on their knowledge, critique existing practice and develop new practices.

TEACHER ACCESS, EXPERIENCE AND USE AND VISION

Teacher Questionnaire

A questionnaire designed to understand teachers' use of technology and the Internet, at school and outside of school.

USING THE DIGITAL TEACHER QUESTIONNAIRE

INSTRUCTIONS FOR TEACHERS

· Have all teachers complete their individual questionnaires by checking one box per category:
  - For example, under "Access", for mobile phones at home, teachers should select 1 of 3 responses: "No" or "Yes, without internet" or "Yes, with internet".
· Ensure that the "Number of teachers responding" on the "Teacher Data Input" page is equal to the "Total Number of Responses" under each category of question:
  - If they are not equal, the "Total Number of Responses" will turn red.
  - If the "Total Number of Responses" is red, use the totals under each question sub-category to find which sub-question is missing a response. Then go through the questionnaires to find which teacher missed the response. Ensure that the teacher responds to the questionnaire properly.
· Averages for each question on the "Teacher Summary" and "Teacher Score Card" will be calculated automatically and do not need to be adjusted.

TEACHER QUESTIONNAIRE

NAME OF COUNTRY :

In this questionnaire you will find questions about yourself and your use of computers and the internet at school and out of school. Some questions ask for facts while others ask for your opinions. All responses are anonymous and treated in the strictest confidence; no individual or school will be identifiable in the published reports.

INSTRUCTIONS FOR USE

· Read each question carefully and answer as accurately as possible.
· Ask for clarification if you do not understand something or are not sure how to respond.
· Each question is followed by a number of possible answers. In some cases, only one answer has to be chosen, in others you can choose several.
· For each question, read carefully the indications on the number of possible choices and then click accordingly on the box(es) next to the answer of your choice.

ABOUT ME

Age:

Number of years of teaching experience:

Gender

ACCESS

Which of the following are available for you to use easily at home, in the community (e.g. at friends' or family member's home, in a public library or an Internet café) and at school? Tick as applies.

	HOME			COMMUNITY			SCHOOL		
	No	Yes, without internet	Yes, with internet	No	Yes, without internet	Yes, with internet	No	Yes, without internet	Yes, with internet
Mobile phone	○	○	○	○	○	○	○	○	○
Computer (desktop, laptop, etc)	○	○	○	○	○	○	○	○	○
Tablet (Netbook, mini notebook, etc)	○	○	○	○	○	○	○	○	○
Other media	○	○	○	○	○	○	○	○	○

EXPERIENCE AND USE : How often do you do the following?

	HOME				SCHOOL			
	Never	Once in a month	Once a week	More than once a week	Never	Once in a month	Once a week	More than once a week
Sending and reading email messages	○	○	○	○	○	○	○	○
Searching different sources online for information and learning about a particular topic you're interested in	○	○	○	○	○	○	○	○
Use Microsoft Office software (Word, Spreadsheet, Powerpoint)	○	○	○	○	○	○	○	○

In delivering lessons, how often do you do the following?

	Never	Once in a month	Once a week	More than once a week
Use digital technologies (e.g. interactive whiteboards)	◯	◯	◯	◯
Incorporate learner-led digital activities (e.g. presentations)	◯	◯	◯	◯

How often do you do the following with regard to professional learning and development?

	Never	Once in a month	Once a week	More than once a week
Participate actively in online communities or forums?	◯	◯	◯	◯
Participate in online courses or programmes	◯	◯	◯	◯
Career advancement (e.g. search for jobs online, upload and update your profile on job websites)	◯	◯	◯	◯

Vision for ICT

Ideally, how would you like to use ICT in your work? Consider what would benefit both you and your students.

THANK YOU
FOR COMPLETING
THIS QUESTIONNAIRE

TEACHER CAPABILITY
Making sense
of the data

The following protocol may be helpful in cleaning and analysing the data you receive from the student questionnaire:

1. Enter the data (if paper questionnaires were completed)
2. Clean the data
3. Analyse the data
4. Present the data

TEACHER QUESTIONNAIRE

1. ENTER THE DATA

It's important that you standardize the point of entry and check the importance of it. By standardizing your data process, you will ensure a good point of entry and reduce the risk of duplication.
You might like to use a program such as Microsoft Excel (or equivalent).

2. CLEAN THE DATA

Data cleaning is the process of ensuring that your data is correct, consistent and usable.
In order to clean the data, you need to identify errors in data entry and any duplicates, since this will help you save time when analyzing data.

3. ENTER THE DATA

The results obtained through the analysis process are intended to suggest conclusions and support decision-making. Sorting data is an integral part of data analysis. Sorting data helps you quickly visualize and understand your data better and organize and find the data that you want. This will enable you to group, tally/total and summarize data. If using Microsoft Excel, the Quick Analysis tool makes it possible to analyze your data quickly and easily using different Excel tools.

4. PRESENT THE DATA

Although there are many ways to communicate your data, charts are often used to depict data pictorially. Charts highlight the notable points in the data so that your audience can quickly grasp what you want to project in the data. If using Microsoft Excel, charts can be used to make a graphical representation of any set of data. You also may like to summarise your finding as per the following page:

SCHOOL NAME:

DATA SUMMARY

ACCESS:

At home, our teachers can...
(complete this sentence)

In the community, our teachers can…
(complete this sentence)

At school, our teachers can…
(complete this sentence)

EXPERIENCE AND USE:

Our teachers are most likely to use ICT to...
(complete this sentence)

Our teachers often use...
(complete this sentence)

for professional learning and development.

The major difference between ICT use in the home and at school for our teachers is…
(complete this sentence)

The ICT vision of our teachers is…
(complete this sentence)

Our teachers use...
 (complete this sentence)

Considering the results of the survey, how would you assess the ICT capability of teachers at your school:

most frequently in delivering lessons.

TEACHER CAPABILITY QUESTIONNAIRE: DIAGNOSING TEACHER STARTING POINTS

Considering the analysed results of the Teacher Capability questionnaire (and your Student ICT Capability Questionnaire and School ICT Infrastructure Audit), how would you assess the capability of teachers to use ICT for learning at your school?

This maturity matrix is intended to help school leadership teams understand the strengths and areas for development of their teaching team by describing different stages or levels of digital competence. It is also intended to support national, regional and local efforts in developing educators' digital competence, by offering a common frame or reference with a common language and logic.

Begin by:
1. Becoming familiar with how the Maturity Matrix is constructed (the next page contains descriptions of the terminology that is used)
2. Considering the results from the Teacher Questionnaire, identify the proficiency level of the staff at your school and place a tick in the relevant circle.

MATURITY MATRIX: TERMINOLOGY

Competence descriptor

The title and a short description consisting of one or two sentences. It aims to concisely and comprehensively describe the competence in question. This description is the main reference. Any activity that can be subsumed under this description should be considered an expression of this competence. Any activity that falls outside of the descriptions' scope is not part of this competence.

Activities

A list of activities that are examples of this competence. This list serves to indicate to framework users what kinds of activities are covered by the competence in question. However, this list is not exhaustive; it illustrates the focus and scope of the competence, without delimiting it. Furthermore, as digital technologies and usage patterns evolve, some of the activities listed may cease to be applicable and others may need to be added.

Progression

A generic description of how this competence manifests itself at different proficiency levels. The progression is cumulative in the sense that each higher-level descriptor comprises all lower-level descriptors. The progression follows the logic inherent in the competence in question, which may be different from that of other competences.

Proficiency statements

A series of proficiency statements exemplifying typical activities at each proficiency level. This list of statements is subject to continuous revision and should only be considered as a means of illustrating the proficiency progression. Since the progression of proficiency levels is cumulative, a person competent at an advanced level should be able to perform the activities at this level and all lower levels.

Digital technologies

Throughout the tables, the concept of "digital technologies" is employed as an umbrella term for digital resources and devices, thus comprising any kind of digital input: software (including apps and games), hardware (e.g. classroom technologies or mobile devices) or digital content.

Considering the results from the Teacher Questionnaire, identify the proficiency level of the staff at your school and place a tick in the relevant circle.

Level	Teaching — Progression	Teaching — Proficiency Statement	Guidance — Progression	Guidance — Proficiency Statement	Actively engaging learners — Progression	Actively engaging learners — Proficiency Statement	Digital continuous professional development — Progression	Digital continuous professional development — Proficiency Statement
Newcomer	Making little use of digital technologies for instruction.	"I do not or only very rarely use digital devices or digital content in my teaching."	Making little use of digital technologies for interacting with learners.	"I do not or only very rarely communicate with learners through digital means, e.g. e-mail."	Making little use of digital technologies for learner engagement.	"I only very rarely, if at all, use digital technologies to motivate or engage learners."	Making little use of the internet for updating knowledge.	"I only rarely, if at all, use the internet to update my knowledge or skills."
Explorer	Making basic use of available digital technologies for instruction.	"I use available classroom technologies, e.g. digital whiteboards, projectors, PCs." "I choose digital technologies according to the learning objective and context."	Employing basic digital strategies to interact with learners.	"I use digital technologies, e.g. e-mail or chat, to respond to learners' questions or doubts, e.g. on homework assignments."	Using digital technologies to engage learners.	"I use digital technologies to visualise and explain new concepts in a motivating and engaging way, e.g. by employing animations or videos." "I employ digital learning activities which are motivating and engaging, e.g. games, quizzes."	Using the internet for updating knowledge.	"I use the internet to update my subject-specific or pedagogical knowledge."
Integrator	Integrating available digital technologies meaningfully into the teaching process.	"I organise and manage the integration of digital devices (e.g. classroom technologies, students' devices) into the teaching and learning process." "I manage the integration of digital content, e.g. videos, interactive activities, into the teaching and learning process."	Using digital technologies to enhance interaction with learners.	"I use a common digital communication channel with my learners to respond to their questions and doubts." "I am frequently in contact with learners and listen to their problems and questions."	Fostering learners' active use of digital technologies.	"I put learners' active use of digital technologies at the centre of the instructional process." "I choose the most appropriate tool for fostering learner active engagement in a given learning context or for a specific learning objective."	Using the internet to identify opportunities for continuous professional development.	"I use the internet to identify suitable training courses and other opportunities for professional development (e.g. conferences)."
Expert	Using digital technologies purposefully to enhance pedagogic strategies.	"I consider appropriate social settings and interaction modes when integrating digital technologies." "I use digital technologies in teaching to increase methodological variation." "I set up learning sessions or other interactions in a digital environment."	Using digital technologies to enhance monitoring and guidance.	"I interact with learners in the collaborative digital environments I use, monitoring their behaviour and providing individual guidance and support as needed." "I experiment with new forms and formats for offering guidance and support, using digital technologies."	Using digital technologies for learners' active engagement with the subject matter.	"I use a range of digital technologies to create a relevant, rich and effective digital learning environment, e.g. by addressing different sensory channels, learning styles and strategies, by methodologically varying activity types and group compositions." "I reflect on how effective the teaching strategies employed are in increasing learner engagement and active learning."	Exploring online professional development opportunities.	"I use the internet for professional development, e.g. by participating in online courses, webinars, or consulting digital training materials and video tutorials." "I use formal and informal exchanges in professional online communities as a source for my professional development."
Leader	Orchestrating, monitoring and flexibly adapting the use of digital technologies to enhance pedagogic strategies.	"I structure learning sessions so that different (teacher-led and learner-led) digital activities jointly reinforce the learning objective." "I structure and manage content, contributions and interaction in a digital environment." "I continuously evaluate the effectiveness of digitally enhanced teaching strategies and revise my strategies accordingly."	Employing digital technologies strategically and purposefully to provide guidance and support.	"When I set up learning activities in digital environments, I foresee learners' needs for guidance and cater for them, e.g. with a help or FAQ section, or with video tutorials." "When I implement digital learning activities in class, I make sure I am able to (digitally) monitor student behaviour, so that I can offer guidance when needed."	Comprehensively and critically implementing strategies for active learning.	"I select, design, employ and orchestrate the use of digital technologies within the learning process according to their potential for fostering learners' active, creative and critical engagement with the subject matter." "I reflect on how suitable the different digital technologies I use are in increasing learners' active learning and adapt my strategies and choices accordingly."	Critically and strategically using the internet for professional development.	"I consult a range of possible online training opportunities and select those which best fit my development needs, learning style and time constraints." "I actively participate in online training opportunities and contribute to improving them and guiding others in making appropriate choices by providing feedback."

Teaching: To plan for and implement digital devices and resources in the teaching process.

Guidance: To use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session.

Actively engaging learners: To use digital technologies to foster learners' active and creative engagement with a subject matter.

Digital continuous professional development: To use digital sources and resources for continuous professional development.

ADDITIONAL INFORMATION

COMPETENCE DESCRIPTOR AND ACTIVITIES

Additional information for each competency descriptor, including a list of examples of this competence in action, are included on the slides that follow for the competencies:
· Teaching
· Guidance
· Actively engaging learners
· Digital continuous professional development

TEACHING

To plan for and implement digital devices and resources in the teaching process

Activity
· To use classroom activities to support instruction, e.g. electronic whiteboards, mobile devices
· To structure the lesson so that different (teacher-led and learner-led) digital activities jointly reinforce the learning objective
· To set up learning sessions, activities and interactions in a digital environment
· To structure and manage content, collaboration and interaction in a digital environment
· To consider how educator-led digital interventions – whether-to-face or in a digital environment – can best support the learning objective
· To reflect on the effectiveness and appropriateness of the digital pedagogical strategies chosen and flexibly adjust methods and strategies
· To experiment with and develop new formats and pedagogical methods for instruction (e.g. flipped classroom)

GUIDANCE

To use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session

Activity
· To use digital communication tools to respond promptly to learners' questions and doubts e.g. on homework assignments
· To set up learning activities in digital environments, having foreseen learners' needs for guidance and catering for them
· To interact with learners in collaborative digital environments
· To digitally monitor student behaviour in class and offer guidance when needed
· To use digital technologies to remotely monitor student progress and intervene when needed, while allowing for self-regulation
· To experiment with and develop new forms and formats for offering guidance and support, using digital technologies

ACTIVELY ENGAGING LEARNERS

To use digital technologies to foster learners' active and creative engagement with a subject matter

Activity
· To use digital technologies to visualise and explain new concepts in a motivating and engaging way, e.g. by employing animations or videos
· To employ digital learning environments or activities which are motivating and engaging, e.g. games, quizzes
· To put learners' active uses of digital technologies at the centre of the instructional process
· To use digital technologies to allow learners to actively engage with the subject matter at hand, e.g. using different senses, manipulating virtual objects, varying the problem set up to enquire into its structure, etc.
· To select appropriate digital technologies for fostering active learning in a given learning context or for a specific learning objective
· To reflect on how suitable the different digital technologies used are in increasing learners' active learning, and to adapt strategies and choices accordingly

DIGITAL CONTINUOUS PROFESSIONAL DEVELOPMENT

To use digital sources and resources for continuous professional development

Activity
· To use the internet to identify suitable training and professional development opportunities
· To use the internet to update one's subject specific competences
· To use the internet to learn about new pedagogical methods and strategies
· To use the internet to search for and identify digital resources which support professional development
· To use the exchange in digital professional communities as a source of professional development
· To use online training opportunities, e.g. video tutorials, Massive Open Online Courses (MOOCs), webinars, etc.
· To use digital technologies and environments to provide training opportunities for colleagues and peers

ADDITIONAL INFORMATION

PROGRESSION LEVELS

Additional information for each level of progression is included on the slide that follow for the following levels:

· Newcomer
· Explorer
· Integrator
· Expert
· Leader

LEVELS OF PROGRESSION

Newcomer: Newcomers are aware of the potential of digital technologies for enhancing pedagogical and professional practice. However, they have had very little contact with digital technologies and use them mainly for lesson preparation, administration or organisational communication. Newcomers need guidance and encouragement to expand their repertoire and to apply their existing digital competence in the pedagogical realm.

Explorer: Explorers are aware of the potential of digital technologies and are interested in exploring them to enhance pedagogical and professional practice. They have started using digital technologies in some areas of digital competence, but without following a comprehensive or consistent approach. Explorers need encouragement, insight and inspiration, e.g. through the example and guidance of colleagues, embedded in a collaborative exchange of practices.

Integrator: Integrators experiment with digital technologies in a variety of contexts and for a range of purposes, integrating them into many of their practices. They creatively use them to enhance diverse aspects of their professional engagement. They are eager to expand their repertoire of practices. They are, however, still working on understanding which tools work best in which situations and on fitting digital technologies to pedagogic strategies and methods. Integrators just need some more time for experimentation and reflection, complemented by collaborative encouragement and knowledge exchange to become Experts.

Expert: Experts use a range of digital technologies confidently, creatively and critically to enhance their professional activities. They purposefully select digital technologies for particular situations, and try to understand the benefits and drawbacks of different digital strategies. They are curious and open to new ideas, knowing that there are many things they have not tried out yet. They use experimentation as a means of expanding, structuring and consolidating their repertoire of strategies. Experts are the backbone of any educational organisation when it comes to innovating practice.

Leader: Leaders have a consistent and comprehensive approach to using digital technologies to enhance pedagogic and professional practices. They rely on a broad repertoire of digital strategies from which they know how to choose the most appropriate for any given situation. They continuously reflect on and further develop their practices. Exchanging with peers, they keep updated on new developments and ideas. They are a source of inspiration for others, to whom they pass on their expertise.

STEP 2: Tool 5
SCHOOL ICT INFRASTRUCTURE AUDIT
Aligned to Domain 5 – Technological Infrastructure

Who should use this:
School or other education provider

Group or individual:
Group

Print size:
A4

Informed by:
SABER

Instructions for use

· Please provide feedback on the availability of the ICT resources listed.
· Think about the use of technology across different departments or subject areas.

TECHNOLOGICAL INFRASTRUCTURE: SCHOOL ICT INFRASTRUCTURE AUDIT AND PLANNING

Maturity Matrix to identify available infrastructure on site

Teams will be asked to provide a brief description and context of the levels of infrastructure already in place in sites.

Prerequisite:
Complete Step 1 to identify the 2 key learning challenges you wish to address with ICT. Keep these in mind as you audit and plan for your site's infrastructure.

USING THE DIGITAL INFRASTRUCTURE AUDIT

INSTRUCTIONS FOR HEAD OF SCHOOL

· Have teachers collectively complete the infrastructure audit by checking one box per category:
  - *For example, under "ICT Basic Infrastructure", teachers should select 1 of 4 responses: "Not at all" or "Emerging" or "Established" or "Advanced".*
· Averages for each question on the "Infrastructure Summary" and "Infrastructure Score Card" will be calculated automatically and do not need to be adjusted.

A. AUDIT

Characteristic	Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid-level and reasonable consistency	Advanced/High level, comprehensive and embedded
SCALE (KINDLY PROVIDE BRIEF DESCRIPTIONS FOR EACH CHARACTERISTIC)				
1. ICT Basic Infrastructure				
1.1 Buildings and furniture related to ICT use e.g. computer labs	◯	◯	◯	◯
1.2 Reliable connectivity and network infrastructure to school and in-school e.g. Broadband, Wireless, LAN.	◯	◯	◯	◯
1.3 Power; electricity/solar and backups	◯	◯	◯	◯
1.4 Operating systems and licensing for devices and content	◯	◯	◯	◯
1.5 Physical safety (lockable storage, guards, alarms)	◯	◯	◯	◯
1.6 Virtual security (antivirus software and firewalls)	◯	◯	◯	◯
1.7 Operational maintenance and support plan	◯	◯	◯	◯

SCALE (KINDLY PROVIDE BRIEF DESCRIPTIONS FOR EACH CHARACTERISTIC)

Characteristic	Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid-level and reasonable consistency	Advanced/High level, comprehensive and embedded
2. Learner-centric Hardware and Software				
2.1 Access devices e.g. handheld devices, desktops, laptops, tablets	○	○	○	○
2.2 Digital learning content (digitized curriculum books/materials)	○	○	○	○
2.3 Audio-visual lessons and tutorials	○	○	○	○
2.4 Online resource platform (reference materials and supplementary reads)	○	○	○	○

Characteristic	Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid-level and reasonable consistency	Advanced/High level, comprehensive and embedded
3. Teacher-centric Hardware and Software				
3.1 Access devices e.g. handheld devices, desktops, laptops, tablets	◯	◯	◯	◯
3.2 Display devices e.g. interactive whiteboards, projectors	◯	◯	◯	◯
3.3. Professional development content; access to online education courses	◯	◯	◯	◯
3.4 Online pedagogical and technical support mechanisms and networks in-service educators.	◯	◯	◯	◯
3.5 School management support e.g. budget management systems, digital timetabling, attendance and assessment software.	◯	◯	◯	◯

Characteristic	Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid-level and reasonable consistency	Advanced/High level, comprehensive and embedded
4. Teacher Professional Development				
4.1 Participate in blended learning courses (combination of online and face-to-face training)	◯	◯	◯	◯
4.2 Take part in online professional development courses and forums	◯	◯	◯	◯
4.3 Mentoring and follow-up support	◯	◯	◯	◯

B. COSTING

Instructions for filling the Costing Table:

For each of the cost elements listed in the table, indicate the following:

1. Cost for full functionality: this refers to how much it would cost to have your ICT infrastructure running and maintained. For each of the cost elements, input costs of having them operating fully and at maximum capacity.
2. Existing budget: this refers to the current funds allocated to your ICT infrastructure. For each of the cost elements, input the current funds available for use from your budget.
3. Budget Gap: this refers to the deficit costs for your ICT infrastructure. For each of the cost elements, calculate this by deducting the 'Existing budget' from the 'Cost for full functionality'. This will give you an indication of funds still needed to get your ICT infrastructure on track and running.

NB: You will need the Budget Gap figures when developing your Proposal for Action in Step 4.

B. COSTING

Cost elements	Cost for full functionality		Existing budget		Budget Gap	
	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent
1. ICT Basic Infrastructure						
1.1 Buildings and furniture related to ICT use e.g. computer labs						
1.2 Reliable connectivity and network infrastructure to school and in-school e.g. Broadband, Wireless, LAN.						
1.3 Power; electricity/solar and backups						
1.4 Operating systems and licensing for devices and content						
1.5 Physical safety (lockable storage, guards, alarms)						
1.6 Virtual security (antivirus software and firewalls)						
1.7 Operational maintenance and support plan						
TOTAL						

B. COSTING

COSTING CONSIDERATIONS

Cost elements	Cost for full functionality		Existing budget		Budget Gap	
	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent
2. Learner-centric Hardware and Software						
2.1 Access devices e.g. handheld devices, desktops, laptops, tablets						
2.2 Digital learning content (digitized curriculum books/materials)						
2.3 Audio-visual lessons and tutorials						
2.4 Online resource platform (reference materials and supplementary reads)						
TOTAL						

Cost elements	Cost for full functionality		Existing budget		Budget Gap	
	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent
3. Teacher-centric Hardware and Software						
3.1 Access devices e.g. handheld devices, desktops, laptops, tablets						
3.2 Display devices e.g. interactive whiteboards, projectors						
3.3. Professional development content; access to online education courses						
3.4 Online pedagogical and technical support mechanisms and networks in-service educators.						
3.5 School management support e.g. budget management systems, digital timetabling, attendance and assessment software.						
TOTAL						

Cost elements	Cost for full functionality		Existing budget		Budget Gap	
	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent
4. Teacher Professional Development						
4.1 Participate in blended learning courses (combination of online and face-to-face training)						
4.2 Take part in online professional development courses and forums						
4.3 Mentoring and follow-up support						
TOTAL						

STEP 2: Tool 6
SCHOOL ICT ECOSYSTEM AUDIT
Aligned to Domain 9 - Coalitions

Who should use this:
To be lead by the school leadership in collaboration with teachers

Group or individual:
Group

Print size:
A3

Adapted from:
Development Impact & You (DIY) Toolkit
The World Bank Annual Report 2018

Resources you'll need:

Post-it notes
Chart paper

COALITIONS: KNOW THE PEOPLE YOU'RE WORKING WITH

People and Connections Map

This tool guides you in identifying various stakeholders you are working with and their role in your ICT implementation.

There are two options available for use:

1. **Online:** Roots Systems Mapping: this visualises systems in terms of nodes and linkages. Nodes are the individual actors within the system, and linkages are the interrelationships between those actors. **Online: Roots System**

2. **Offline:** Coalition Mapping: a paper-based system that enables users to identify stakeholders they are engaging for their ICT for learning strategy. **Offline: Coalition Mapping**

INSTRUCTIONS FOR USE

Coalition Mapping:

· In your teams, start by noting down your target audience, including beneficiaries, users or groups who would benefit from your work, in the centre of the worksheet. From the centre, start mapping people and organisations that you are closely engaging for implementing or delivering your ICT work. Then, on the outer circle, map people and organisations you are currently engaging, but not as closely as your inner circle.

· Once the worksheet has been filled, go through each person and organisation on the map with your team and, if necessary, reposition them into the circle and section that the team agrees fits most. This review will give you a useful starting point to discuss which relationships or connections are key, and which may need extra attention.
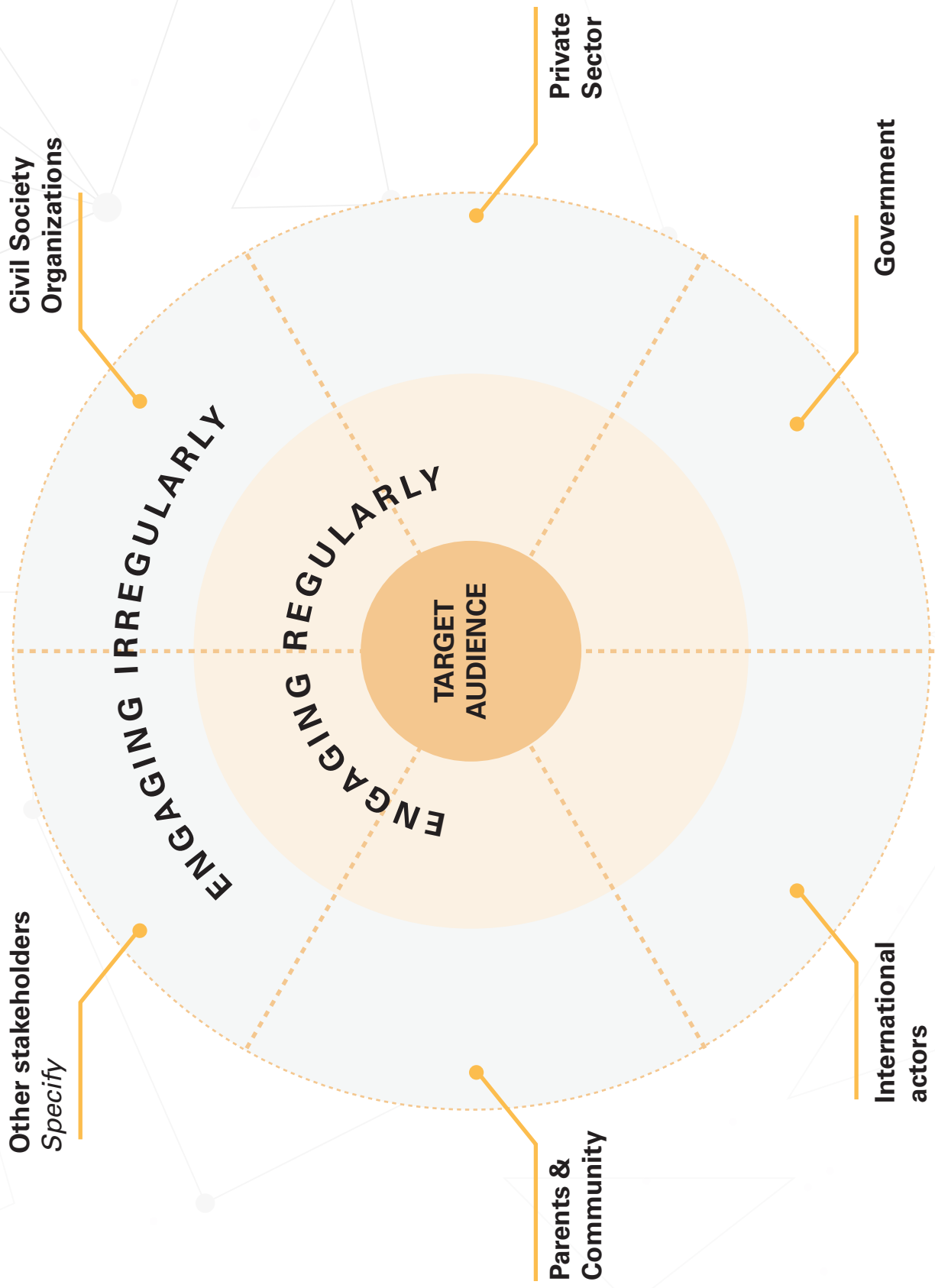
Role:

· Fill in the table with brief notes on the support your stakeholders can provide to you as you implement your ICT for learning. Think about the stakeholders you have identified as key actors in your ICT work (in the Coalition Mapping exercise) and discuss which domain(s) you think they are most suited to support you in. In what way would they support you?
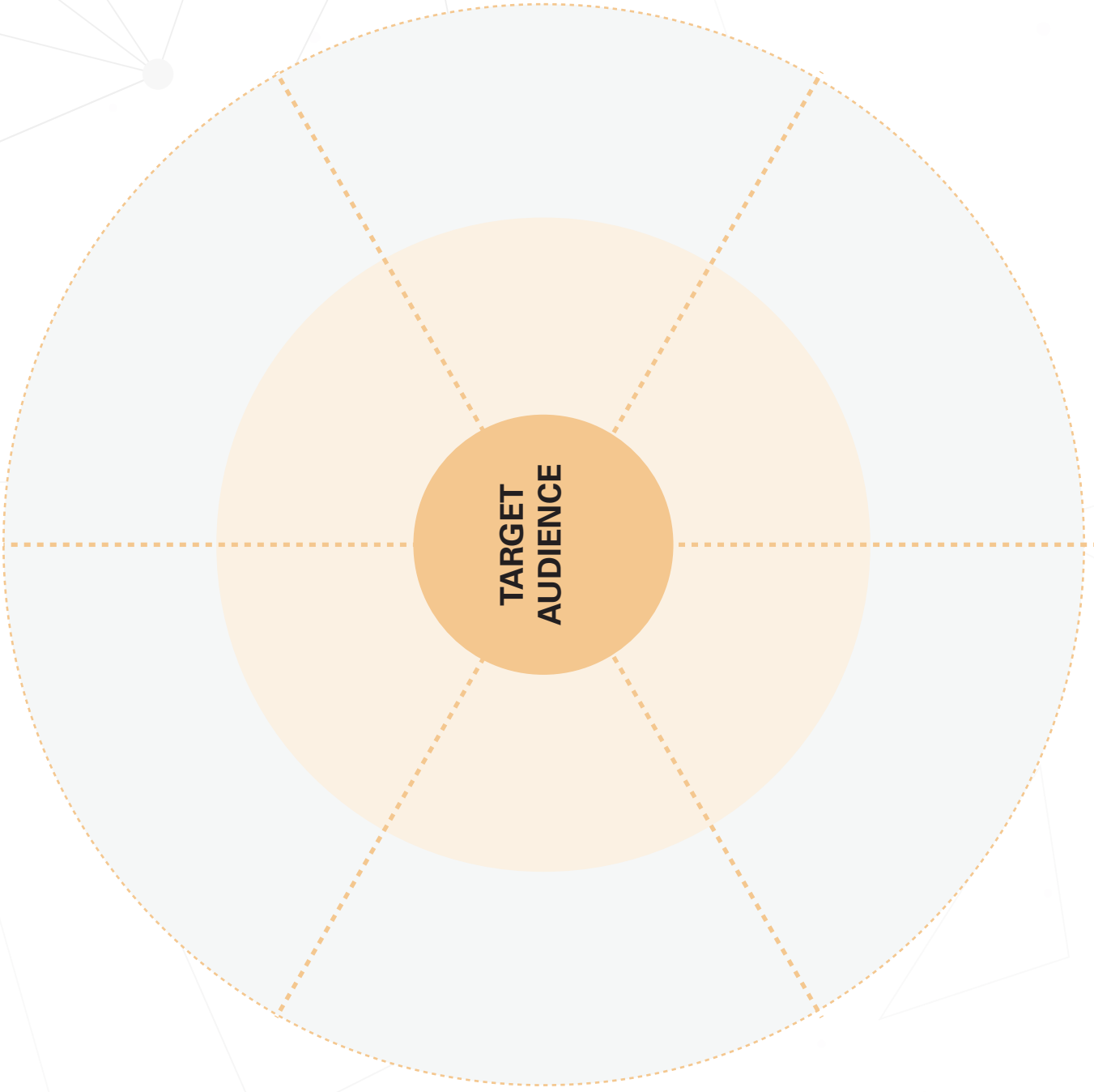
NB: *Keep the stakeholders you identify and their role in mind as you move to Step 3 and develop your 'Scorecard' and your 'Prototype for Action'.*

COALITION MAPPING ▶

COALITION MAPPING

TARGET AUDIENCE

ENGAGING REGULARLY

ENGAGING IRREGULARLY

Private Sector

Government

Civil Society Organizations

International actors

Parents & Community

Other stakeholders
Specify

COALITION MAPPING

TARGET
AUDIENCE

ROLE

Domain	Stakeholder (pick)	Notes on support provided (per stakeholder identified)
Student Capability	1. CSOs 2. Private Sector 3. Government 4. International actors 5. Parents and community 6. Others (specify)	
Teacher Capability	1. CSOs 2. Private Sector 3. Government 4. International actors 5. Parents and community 6. Others (specify)	
ICT Infrastructure	1. CSOs 2. Private Sector 3. Government 4. International actors 5. Parents and community 6. Others (specify)	
ICT Funding Resources	1. CSOs 2. Private Sector 3. Government 4. International actors 5. Parents and community 6. Others (specify)	

Online: Roots System

1. An online systems mapping platform *(www.mypando.org)*
2. Supports visualisation and understanding of relationships within complex dynamic systems

STEP 2: Tool 7
SCHOOL ICT FOR LEARNING SCORECARD
Aligned to Domain 6 – Implementation and Change

Who should use this:
School or other education provider

Group or individual:
Group

Print Size:
A4

Developed by:
Innovation Unit and AKF for UNICEF

Instructions for use:

Complete the School Scorecard utilising the results from the Student and Teacher Questionnaires, School ICT Infrastructure Audit and School ICT Ecosystem Audit

USING THE DIGITAL SCHOOL SCORECARD
INSTRUCTIONS FOR HEAD OF SCHOOL

· Collect all completed Student and Teacher Scorecards from Digital Tool 3 and Digital Tool 4
· Collect the completed School Infrastructure Scorecard and School ICT Ecosystem Audit from Digital Tool 5 and Tool 6
· Use Digital Tools 3, 4, 5 and Tool 6 to fill out Digital Tool 7 School Scorecard

STUDENT ICT CAPABILITY

Take score from Digital Tool 3, Student Scorecard, D11 and put in Digital Tool 7, F3

TEACHER ICT CAPABILITY

Take score from Digital Tool 4, Teacher Scorecard, D11 and put in Digital Tool 7, F5

Digital Tool 7 - School Scorecard
File Edit View Insert Format Data Tools Help

Student ICT Capability   /64
Teacher ICT Capability   /57

	Newcomer	Explorer	Integrator	Expert	Leader
School ICT Infrastructure					
ICT Basic Infrastructure		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Learner-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher Professional Development		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded

School ICT Ecosystem Audit

	Number of stakeholders	Key Stakeholder
Student Capability		
Teacher Capability		
ICT Infrastructure		
ICT Funding Resources		

School Score Card

Digital Tool 4 - Teacher Capability Scorecard
File Edit View Insert Format Data Tools Add-ons Help

	Maximum Score
Average Teacher Access	
12.58	24
Average Teacher Experience	
9.53	18
Average Teacher Use	
4.11	6
Average Teacher Development	
6.21	9
	57

Teacher Score Card   Teacher Summary   Teacher Data Input   Teacher ICT Vision

SCHOOL ICT INFRASTRUCTURE

Take scores from Digital Tool 5, Infrastructure Scorecard, C3-6 and put in Digital Tool 7, C9-12

Digital Tool 7 - School Scorecard `XLSX` ☆ ⊡ ⌂
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	Student ICT Capability				
	Overall average				/64
	Teacher ICT Capability				
	Overall average				/57
	Proficiency Level of Teachers				
	Newcomer	Explorer	Integrator	Expert	Leader
	School ICT Infrastructure				
ICT basic Infrastucture		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Learner-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher Professional Development		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
	School ICT Ecosystem Audit				
			Number of stakeholders	Key Stakeholder	
Student Capability					
Teacher Capability					
ICT Infrastructure					
ICT Funding Resources					

+ ▤   School Score Card ▾

SCHOOL ICT ECOSYSTEM

Take data from Tool 6 and put in Digital Tool 7, E-G15-18

STEP 3: Tool 8
PROTOTYPE FOR ACTION
Aligned to Domain 6 – Implementation and Change

Who should use this:
School or other education provider

Group or individual:
Group

Print size:
A4

Developed by:
Innovation Unit and AKF for UNICEF

Resources you'll need:

IMPLEMENTATION & CHANGE:

ADVANCING ICT FOR LEARNING THROUGH PROTOTYPING & ITERATION

By engaging people in identifying the problem and its likely causes, coming up with ideas for possible solutions and then testing and evaluating the ideas, we have a greater chance of developing a robust solution that meets their needs.

Steps 1 and 2

+

STIMULATING POSSIBILITIES
Through researching the lives of students and teachers

INCUBATING SOLUTIONS
Through collaboratively generating ideas and prototypes

=

Steps 3

Projects and practices that respond to the needs and ambitions of students and teachers, and are more likely to make a difference

PROTOTYPE FOR ACTION

This tool (Step 3) will guide you through a process to collate the information you have to determine whether an ICT solution should be incubated and prototyped through a 50-day prototyping process. The tool will then help you to identify the problem to be solved and develop a solution, design the prototype process, and deliver this over a 50-day period.

KEY LEARNING PROBLEM

Utilising the COIN (Challenge, Opportunity, Insight and Need) framework included in Step 1, reflect upon that the key learning problem is for your school:

CHALLENGES
What makes things difficult? What challenges would they like to solve, and what might we like to solve for them?

OPPORTUNITIES
What is working well? What could be made better? What motivations or ambitions can we build from?

INSIGHTS
What challenges our assumptions? What gives us clues about new approaches or possibilities?

NEEDS
What do people say they need? What do we think they might need? What needs aren't being met?

LEARNING OUTCOMES
What is working well? What could be made better? What motivations or ambitions can we build from?

LEARNING ENVIRONMENT
What do people say they need? What do we think they might need? What needs aren't being met?

LEVEL OF ICT READINESS

A balanced scorecard looks at your school from the four different perspectives to measure its ICT readiness. Each of these perspectives focuses on a different requirement for moving towards ICT for learning, creating a balanced view of your school's readiness. Refer back to the tools you used in Step 2 to build out your scorecard:

Student ICT Capability

Overall average

Teacher ICT Capability

Overall average

School ICT Infrastructure

School ICT Ecosystem Audit

OUR ASSESSMENT OF OUR ICT READINESS

PROPOSE SOLUTION

Ideation is the process of coming up with as many ideas as possible to solve your identified learning challenge or problem.

WHAT POSSIBLE SOLUTIONS HAVE YOU CONSIDERED?

In a disciplined design process, the ideas from ideation that best meet/respond to the learning problem are often developed into prototypes.

PROPOSED SOLUTION TO BE PROTOTYPED AND TESTED FOR 50 DAYS

What change and innovation is needed?
Development of front-line practice (practice improvement)
-
Organisational improvements (organisational efficiency)
-
Developing partnerships (strengthening networks)?

ECOSYSTEM ANALYSIS

Considering the stakeholders you mapped in the School ICT Ecosystem Audit (Step 2), which stakeholders are most important when considering implementing your proposed solution.

Plot the following groups of stakeholders in the grid based on their level of influence and interest in your planned ICT solution (specify names/ departments where applicable):

1. Government
2. Private Sector
3. Parents and Community
4. Civil Society Organizations
5. International Actors
6. Others

INFLUENCE/POWER OF STAKEHOLDER

THE SOLUTION WOULD MEET THEIR NEEDS	KEY PLAYERS
LEAST IMPORTANT	SHOW CONSIDERATION

INTEREST OF STAKEHOLDER

HOW MIGHT YOU INVOLVE THEM IN THE 50 DAY PROTOTYPING PROCESS?

Key:

1. Engage closely
2. Involve and keep satisfied
3. Consult
4. Involve and monitor

IMPACT ON ICT ENABLING ENVIRONMENT

How will the solution you have proposed to prototype for action impact on your School ICT for Learning Scorecard?

WHAT WILL ACTUALLY CHANGE AS A RESULT OF THE IDEAS AND ACTION THAT YOU ARE PROPOSING?

To what extent?
-
How will you know?

WHO WILL THE CHANGE IMPACT?

Your partners?
-
Different parts of the district?
-
Different parts of the system?

IMPACT ON ICT FOR LEARNING

How will the solution you have proposed to prototype for action impact on the key learning and learning environment problems?

WHAT WILL ACTUALLY CHANGE FOR STUDENT LEARNING OUTCOMES?

To what extent?
–
How will you know?

WHAT WILL ACTUALLY CHANGE FOR STUDENT LEARNING ENVIRONMENTS?

To what extent?
–
How will you know?

RISK ASSESSMENT

Reflecting on your Risk Matrix in Step 1, what are the top 5 risks for you to consider during the 50-day prototyping process and how will you mitigate them should they eventuate?

	TYPE OF RISK	DESCRIPTION OF RISK	RISK RATING (Very High, High, Medium, Low, Very Low)	RISK MITIGATION STRATEGIES
1				
2				
3				
4				
5				

IMPLEMENTATION AND CHANGE:
ADVANCING ICT FOR LEARNING THROUGH PROTOTYPING AND ITERATION

Now that you are clear on the problem and its likely causes and have come up with a proposed solution, it is time to **test and evaluate the ideas** so that you have a greater chance of developing a robust solution. The process used to incubate, test and evaluate our proposed solutions is called prototyping.

Steps 1 and 2 **+**

STIMULATING POSSIBILITIES
Through researching the lives of students and teachers

INCUBATING SOLUTIONS
Through collaboratively generating ideas and prototypes

Steps 3 **=**

Projects and practices that respond to the needs and ambitions of students and teachers, and are more likely to make a difference

PROTOTYPE FOR ACTION

The following pages will help you plan a 50-day prototyping process. A guide to prototyping is included in the resources folder and will help you conduct a robust prototype.

OUR 50-DAY PROTOTYPE ON A PAGE

The test we will run to test our proposed solution is:

_____

_____

_____

_____

_____

To test our new solution, we need to understand what the key features of our proposed solution are: (e.g. new professional development role to upskill teachers, a new learning environment, new devices, etc.)

KEY FEATURE 1	KEY FEATURE 2	KEY FEATURE 3

The evidence we will collect while we run our prototype is:

1. -

2. -

3. -

TIMELINE
Start: ....

End: ....

Prototype lead:

....

50-DAY PLAN

Team - **Start date** - - - - - - - - - - - - - - - - - - -

Q1: In order to test the features of our proposed solution, what test will we run?

Q2: Responsibility
Who will take the lead?

Q3: Timeline for delivery
What is the timeline for delivery?

Q4: Resources
What resources, support or capacity will be needed?

Q5: Barriers
What could get in the way of successful completion?

KEY FEATURE 1

KEY FEATURE 1

KEY FEATURE 1

STEP 4 : Tool 9
Tool 9 - PROPOSAL FOR ACTION
Aligned to Domain 6 – Implementation and Change

Who should use this:
School or other education provider

Group or individual:
Group

Print size:
A4

Developed by:
Innovation Unit and AKF for UNICEF

Resources you'll need:

IMPLEMENTATION AND CHANGE:
PROPOSAL FOR ACTION

By engaging people in identifying the problem and its likely causes, **coming up with ideas for possible solutions, learning from by testing and evaluating the ideas,** we now have a greater chance of developing a robust solution that meets their needs.

Tools 3 - 8   **+**

STIMULATING POSSIBILITIES
Through researching the lives of students and teachers

INCUBATING SOLUTIONS
Through collaboratively generating ideas and prototypes

Tool 9   **=**

Projects and practices that respond to the needs and ambitions of students and teachers, and are more likely to make a difference

PROTOTYPE FOR ACTION

This tool (Step 4) will guide you through a process to collate the information you have from your Prototype for Action to determine whether an ICT solution should be further developed into a costed Proposal for Action.

KEY LEARNING PROBLEM

Utilising the COIN (Challenge, Opportunity, Insight and Need) framework included in Step 1, reflect upon that the key learning problem is for your school:

CHALLENGES
What makes things difficult? What challenges would they like to solve, and what might we like to solve for them?

OPPORTUNITIES
What is working well? What could be made better? What motivations or ambitions can we build from?

INSIGHTS
What challenges our assumptions? What gives us clues about new approaches or possibilities?

NEEDS
What do people say they need? What do we think they might need? What needs aren't being met?

LEARNING OUTCOMES
What are the key challenges and opportunities related to student learning outcomes?

LEARNING ENVIRONMENT
What do people say they need? What do we think they might need? What needs aren't being met?

LEVEL OF ICT READINESS

Utilising the School ICT for Learning Scorecard included in Tool 7, reflect upon your school's ICT readiness:

Digital Tool 7 – School Scorecard · XLSX

File Edit View Insert Format Data Tools Help

	Newcomer	Explorer	Integrator	Expert	Leader
Student ICT Capability					
Overall average					/64
Teacher ICT Capability					
Overall average					/57
School ICT Infrastructure					
ICT basic infrastructure		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Learner-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher-centric hardware and software		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
Teacher Professional Development		Not at all	Emerging/Low level and patchy (unreliable)	Established/Mid level and reasonable consistency	Advance/High level, comprehensive and embedded
School ICT Ecosystem Audit					
		Number of stakeholders		Key Stakeholders	
Student Capability					
Teacher Capability					
ICT Infrastructure					
ICT Funding Resources					

OUR ASSESSMENT OF OUR ICT READINESS

PROPOSE SOLUTION

Ideation is the process of coming up with as many ideas as possible to solve your identified learning challenge or problem.

WHAT POSSIBLE SOLUTIONS DID YOU CONSIDER?

In a disciplined design process, the ideas from ideation that best meet/respond to the learning problem are often developed into prototypes.

PROPOSED SOLUTION YOU PROTOTYPED AND TESTED FOR 50 DAYS

What change and innovation is needed?
Development of front-line practice (practice improvement)?
Organisational improvements (organisational efficiency)?
Developing partnerships (strengthening networks)?

PROTOTYPE LEARNING

What have you learnt from the 50-day prototyping process.

WHAT WERE YOUR LEARNING?

In a disciplined design process, the learning from the prototype are incorporated into the Proposed Action for Change

What went well?

What did not go well?

PROPOSED SOLUTION FOR ACTION FOR CHANGE

Based on your learning, what changes need to be made to your solution to achieve the change you want?

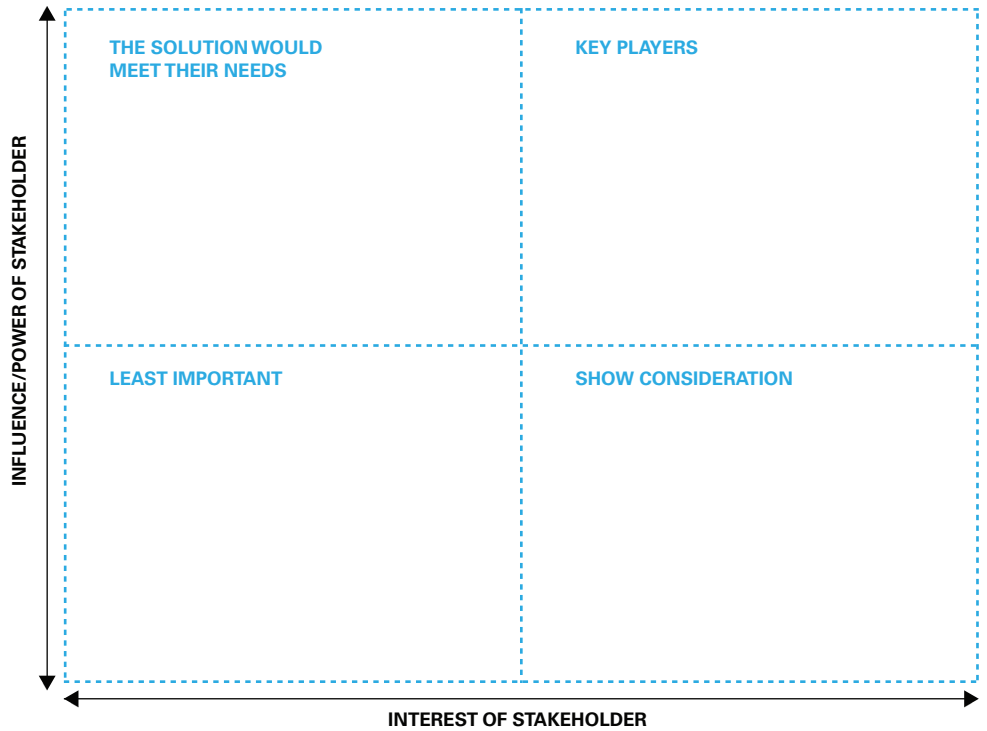**Development of front-line practice (practice improvement)?
Organisational improvements (organisational efficiency)?
Developing partnerships (strengthening networks)?**

ECOSYSTEM ANALYSIS

Considering the stakeholders you identified in your Prototype for Action (Tool 8) which stakeholders are most important when considering implementing your proposed solution.

Plot the following groups of stakeholders in the
grid based on their level of influence and interest
in your planned ICT solution (specify names/
departments where applicable):

1. Government
2. Private Sector
3. Parents and Community
4. Civil Society Organizations
5. International Actors
6. Others

INFLUENCE/POWER OF STAKEHOLDER

THE SOLUTION WOULD MEET THEIR NEEDS

KEY PLAYERS

LEAST IMPORTANT

SHOW CONSIDERATION

INTEREST OF STAKEHOLDER

HOW MIGHT YOU INVOLVE THEM IN THE 50 DAY PROTOTYPING PROCESS?

Key:

1. Engage closely
2. Involve and keep satisfied
3. Consult
4. Involve and monitor

IMPACT ON ICT ENABLING ENVIRONMENT

How will the solution you have proposed in your Proposal for Action impact on your school's School ICT for Learning Scorecard?

WHAT WILL ACTUALLY CHANGE AS A RESULT OF THE INNOVATION YOU ARE PROPOSING?

To what extent?
- **How will you know?**

What is your indicator?	What tool will you use?	How often will you measure?	How will the date inform further changes to your solution?

WHO WILL THE CHANGE IMPACT?

Your partners?
- **Different parts of the district?**
- **Different parts of the system?**

IMPACT ON ICT FOR LEARNING

How will the solution you have proposed Action for Change impact on the key learning and learning environment problems?

WHAT WILL ACTUALLY CHANGE FOR STUDENT LEARNING OUTCOMES?

To what extent?
How will you know?

What is your indicator?	What tool will you use?	How often will you measure?	How will the date inform further changes to your solution?

WHAT WILL ACTUALLY CHANGE FOR LEARNING ENVIRONMENTS?

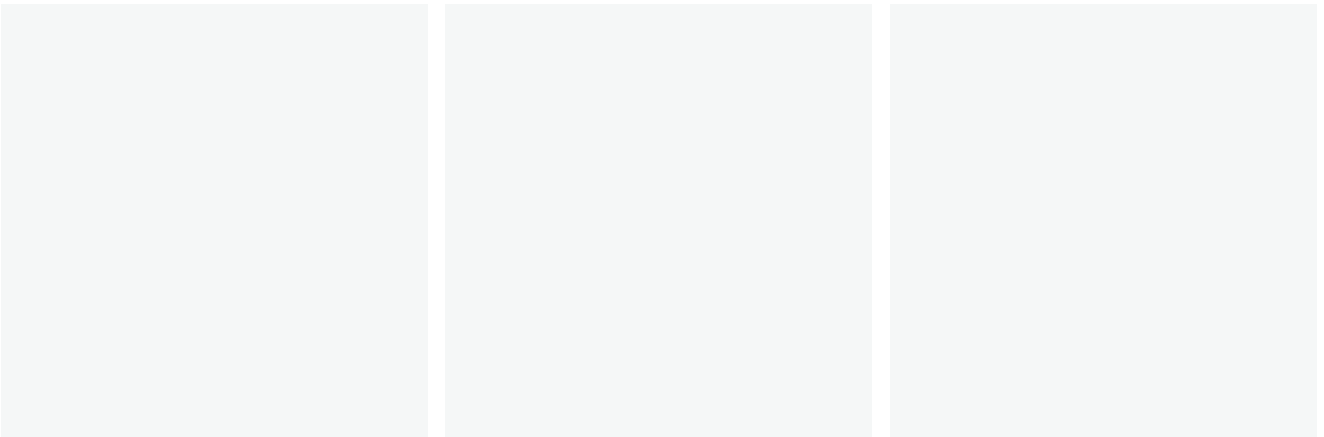**To what extent?**
How will you know?

RISK ASSESSMENT

Reflecting on your risk assessment in Tool 8, what are the top 5 risks for you to consider during the proposed Action for Change and how will you mitigate them should they eventuate?

	TYPE OF RISK	DESCRIPTION OF RISK	RISK RATING (Very High, High, Medium, Low, Very Low)	RISK MITIGATION STRATEGIES
1				
2				
3				
4				
5				

OUR PROPOSED ACTION FOR CHANGE

The Action for Change is

_____

_____

_____

_____

The key steps include:

_____   _____   _____

_____   _____   _____

_____   _____   _____

The evidence we will collect

1. -

2. -

3. -

TIMELINE
Start: ....

End: ....

Prototype lead:

....

Two-year plan

Q1:What are the next most important steps to take?

Q2: Responsibility
WWho will take the lead?

Q3: Timeline for delivery
WWhat is the timeline for delivery?

Q4: Resources
What resources, support or capacity will be needed?

Q5: Barriers
What could get in the way of successful completion?

KEY FEATURE 1

KEY FEATURE 1

KEY FEATURE 1

MONITORING & EVALUATION

Use the Proposed Action for Change and Two-Year Plan pages to regularly assess your progress towards your intended goals. ICT for Learning should be incorporated into your existing school assessment framework and compared to previously collected data.

It is suggested that this is done annually with special attention paid to the areas where this intervention is seeking to create change.

COSTS OF ACTION FOR CHANGE

Reflecting on the data collected from your School ICT Infrastructure Audit tool (Tool 5), specifically the calculation on your budget gap, what are the expected costs for this Action for Change?

CThis exercise will enable you to determine the total cost of the ICT action you plan to implement. Fill in the table with figures on:

1. **The Budget Gap** : calculated from Tool 5 by deducting the 'Existing budget' from the 'Cost of full functionality'.

2. **Incurred costs** : this refers to expenses that have already occurred and cannot be recovered

3. **Projected costs** : this is the predicted cost of new purchases and recurrent costs (maintenance, replacements).

Cost Elements	Budget Gap	Incurred Costs (Sunk costs)	Project Costs				
			Year 1		Year 2		Total
			New	Recurrent	New	Recurrent	
1. ICT basic infrastructure							
2. Learner-centric hardware and software							
3. Teacher-centric hardware and software							
3. Teacher Professional Development							
Total							

NOTES

NOTES

NOTES

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