EdTech Readiness Index (ETRI)

March 2023

School Survey Manual

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Introduction

The World Bank is collaborating with Imaginable Futures and has developed an **EdTech Readiness Index** (ETRI) to support countries in monitoring the extent to which technology supports teaching and learning processes. The ETRI aims to capture key elements of the 'ecosystems' within the education and technology sectors in a given country, and the extent to which the conditions are ripe for investments in 'EdTech' to bear fruit.

The ETRI indicators seek to collect information on two key dimensions that impact student learning: practices (or provision of services offered in the school) and policies (that guide implementation). The indicators on practices and policies have been structured into six general components: school management, teachers, students, devices, connectivity and digital resources.

Overall, the indicators will be populated with data collected using two questionnaires. This document contains details related to the questionnaire that collects data remotely, at the school level. The survey can be administered to the school principal, after consultation with a school Mathematics or Language teacher (in relevant grade), or to both the school principal and a selected Mathematics or Language teacher from the grade of focus. Sections C and D (students' practices and teachers' practices) and are administered to the teacher in the latter case. The school survey provides the necessary data to produce both practices and *de facto* policy indicators. The second ETRI survey questionnaire (Policy Questionnaire) focuses on the *de jure* policy indicators and some key aspects of ICT policies in the education sector.

This document contains the guidelines to complete the School Survey, which collects data on the *de facto* policy indicators, practices and key service delivery aspects related to the role of ICT in the education sector.

Throughout the document, as in the questionnaires, *blue* options indicate that the options are adapted to each country context and *orange* text indicates that a definition in the glossary is available.

School Survey

Please read these instructions carefully prior to starting interviews and administering the questionnaire.

<u>These instructions</u> aim to help you to administer the questionnaire in a consistent manner. They elaborate on the main thrust of some of the key questions and define the key terms that are used (see the glossary).

The **School Survey** seeks to collect information about school practices and the application of specific policies that are believed to play an important role in ensuring EdTech is well integrated within the education system. In doing so, the Survey captures the *de facto* (in practice) implementation of the policy frameworks as they relate to education and technology in schools.

As previously noted, the survey can be administered in a number of ways:

- Principal only The principal is the primary survey respondent. The questionnaire should be shared in advance. The principal should consult with the Language or Mathematics teacher in the grade(s) of focus before the interview, in particular for questions related to teacher and student practices (sections C and D, and one question about use of devices and digital education resources (DER) in sections E and F, respectively).
- Principal and teacher The principal and a Language or Mathematics teacher in the selected grade will be the respondents. The questionnaire should be shared in advance. The principal will answer sections A, B, E and F (background information, school leadership and ICT, digital devices and digital education resources), excluding the questions in section E and F related to grade-specific use of devices and DER. The teacher will answer sections C and D, related to teacher and student practices. These can be answered in separate calls (principal, then teacher) or in the same phone interview (principal and teacher together).

The School Survey can be administered remotely (by telephone) or in-person as a standalone survey or as part of the Global Education Policy Dashboard (GEPD) survey. This particular manual describes the collection of data in a remote format, although the explanation of questions applies to both formats.

1. Background

To understand the **School Survey**, there are a few key points that should be understood:

- What data does it collect? This School Survey collects data about each school principal's
 knowledge of policies related to ICT in education and school practices (i.e. how the policies are
 implemented in their school). It collects information from six areas: school management,
 teachers, students, devices, connectivity and education resources within the school.
- 2. **At what level?** The School Survey collects data about school practices and the implementation of policies (related to Education Technology, or EdTech) at the school level, from a nationally representative sample of 200 300 schools. These schools have been randomly selected from a national database of schools.

- 3. Who conducts it? In each country, a team of enumerators will be trained to administer the School Survey through a phone-based interview with a list of respondents (principal or principal and teacher). All respondents are principals or teachers from primary schools, selected into the sample by the team.
- 4. **How is the School Survey conducted?** The enumerator team will be provided with a full list of schools in the study sample, which will be sub-divided and assigned to members of the team. The list will include the name and contact details for the principal and/or relevant teacher of each school. The survey will be carried out over the phone in the local language(s).

2. General Guidance

2.1. Question Types

All questions in the survey should be completed and are required. The questionnaire has 3 types of questions/responses:

- Multiple choice or multi-select: Where questions have a multiple-choice response, all relevant responses should be selected. To record the exact answer from the respondent, you will need to read all responses listed in the question. If needed, repeat the choices to the respondent. At least one response should be recorded and will be required.
- Single select: Single-select questions require a respondent to choose only one answer from the list provided e.g. age range or highest level of education. Sometimes 'Other' will be available in a single-select list, where the respondent may not find their response in the options provided. Some single-select questions are presented as Likert scale questions where only one option can be selected e.g. answer options are Strongly disagree, Disagree, Agree or Strongly agree.
- **Input-based**: Input-based questions seek a specific/individual response based on the respondent. The answer needs to be entered as text or numeric input (e.g. the year the principal began his/her current position, the number of digital resources in the school, etc.)

Some questions of this type may require additional time or input from another person. Where a respondent is not sure, he/she should be guided to provide an approximation in order to enable them to answer the survey without additional time as much as possible.

Note that for remote implementation some questions will be shared with the respondent in advance. These are marked on the paper version of the survey and are also indicated in the description column below.

• Yes/no questions: These questions have Yes or No answer options, but can also be composite in format i.e. the Yes option can branch into two options that extend the question e.g. "Yes, the responsibilities [for ICT] are assigned to the government level" or "Yes, the responsibilities are assigned to the school level". These extensions should be clarified once the respondent has selected Yes or No (see question notes that follow).

2.2. Conducting the interview

Scheduling the Interview

Before beginning the data collection process or interview, the enumerator is required to schedule an interview time with the principal. During this time, the school information from the listing should be verified, a call time should be scheduled for the interview and a small selection of questions should be shared (over email, text, etc.) with the principal in order for him/her to collect specific information (I.e. related to the number of devices, etc.) ahead of the interview. This process is detailed in the *Principal Interview Scheduling Protocol* document. It is important to establish that a school is eligible for the study before beginning the survey and this should be done as part of pre-survey identification process, based on the criteria provided by the technical team in your country.

• Preparing school information

On the day of the scheduled interview, before beginning an interview, prepare the questionnaire by filling or revising the school information that is recorded for each school and displayed on the tablet. This includes school name, address, province, school telephone number, principal email address, school EMIS code/number, contact number(s) and the grades taught in the school. Some of this information will be provided with the list of sample schools.

Contact the school

Use the school contact information provided to call the school. Introduce yourself with the text provided in the questionnaire document/on the tablet and ask to talk to the principal. Where they are not available during the scheduled call time, ask to arrange another scheduled time. Only in cases where the principal has personally (or otherwise) indicated that he/she is not available for the study period, should you ask to schedule an interview with the deputy/vice principal or the most senior teacher present at the school.

• In order to be eligible for the survey, each school must have been open (since closure for school holidays and/or pandemic or other emergency) and operational for at least one month, so that the information collected details the current school practices.

• Identify the school

As part of the pre-screening and scheduling process, it is important to verify that you have contacted the correct school and school principal (or most relevant contact person) as detailed in your sample list. Note that some schools in the sample might have similar names, and it is important to establish that the intended school has been contacted. This process also includes checking and verifying the school information provided in the sample list and capturing or updating any information that is missing or out of date. This information can be verified with the respondent or the person who answers the call. Before you begin the scheduled interview, confirm that you have re-connected with the same respondent as in the pre-screening call.

• Confirm that the respondent is available to talk

Indicate your willingness to call at another time if it is inconvenient for the respondent to answer questions then.

Obtain respondent consent to be interviewed and assure confidentiality of responses

Before you begin the interview, you are required to obtain a respondent's informed consent to participate in the survey. This is an ethical requirement and an important part of the survey process.

An introductory statement is included at the beginning of the School Survey. The statement explains the purpose of the study and explains that the participant's responses will be kept confidential, that the respondent's identity and personal information will be protected and that participation in the study is completely voluntary. The respondent should also know that the data shared may be used in reports, but only in an aggregated or group format and in a way that would not ever identify the respondent.

Emphasize again that the survey Is not a formal evaluation of the principal's abilities or the performance of the school; rather the study is being conducted to inform policies. You can also assure him/her that their relationship with the Ministry is not affected by their decision to participate or not.

Contact details for a point person related to the study will also be provided to the respondent. The respondent has the right to refuse to answer questions or stop the interview at any point. Be sure to read the introduction statement exactly as it is written before starting the interview.

Answer any questions from the respondent frankly

Before agreeing to be interviewed, the respondent will also have the opportunity to ask you some questions about the survey, how he or she was selected to be interviewed or information provided in the consent process. Always answer their questions frankly.

Only once the respondent has given his/her consent to participate may you proceed with the survey. Where a respondent does not agree to participate in the interview, you should thank them, cease the interview immediately and record the non-consent.

Begin the survey questionnaire

Following consent to participate, you can proceed with the survey, introducing each section of the questionnaire.

3. Completing the specific sections of the questionnaire

This School Survey is organized into six sections with an introduction and identification.

3.1. Introduction and consent

As noted, it is important to read the introduction statement exactly as it is written, in a clear manner that can be easily understood.

Introduction

I am calling from *survey firm*. We are conducting a survey on the availability, access and use of information and communication technologies (ICT) in primary education schools to enable the development of ICT skills among youth. ICT is the general term that refers to the technological tools and resources that transmit, store, create, share or exchange information. They include computers, the Internet (websites, blogs, and email), live streaming technologies (radio, television), recording streaming technologies (audio and video players and storage devices), and telephony (mobile phones, landlines, satellite, videoconference).

The study is implemented in a set of schools in *Country, as well as* in other selected countries around the world and we hope that the results of the study will contribute to the design of policies to improve the learning experience of the children of those countries.

This study is conducted by the World Bank, with the support of the Ministry of Education.

We would like to ask you a few questions about your background and different aspects related to the use of ICT for teaching and learning. Your interview will take approximately XX minutes.

Your responses to the interview questions will be kept confidential. Research staff will protect your identity and personal information closely, so no one outside the global research team will be able to identify that the responses are coming from you. The data you share with us may be used as the basis for publications or presentations in the future, but we will never use your name or information that would identify you. Your colleagues and superiors will not see your responses and nothing you share will be linked to you. When the results are released, they will be aggregated at the province or district level and will not show data at the school level.

Your participation in this study is completely voluntary, and you may refuse to participate or withdraw from the study at any time. You may skip any question during the interview. Your relationship with any school or the *Ministry of Education* will not be affected by your decision to participate or not.

If you have questions or concerns about this research, please contact: XX

Note: the text in blue will be adapted to your country's context.

This statement explains the purpose of the survey and how the respondent's information will be protected. It also assured the respondent that his/her participation in the survey is completely voluntary and that he/she can refuse to answer any questions or stop the interview at any point.

After reading the statement, you should ask the respondent if they have any questions related to the survey or the information covered in introduction and consent sections. You must then ask for the respondent's consent to participate in the survey and recording the response appropriately.

Consent

Do you agree to participate in this study?

0 = No

1 = Yes

If not, do not continue with the interview

If the respondent does not consent to participate, you should thank him/her, stop the interview and record the non-consent on the tablet. Recording non-consent is important to ensure that the school is removed from the sample call list and is not contacted again.

When the respondent has no more questions and has agreed to be interviewed, you can proceed with the interview.

3.2. School identification

The first nine questions before the consent form will identify the school and the respondent.

Q#	Question	Description/Considerations
1	School Province	Confirm or update the respondent's answer by selecting one response from the available options.
2	School district	Confirm or update the respondent's answer by selecting one response from the available options.
3	School name	Confirm or update the respondent's answer by selecting one response from the available options.
4	School address	Confirm or update the respondent's answer.
5	EMIS/School code	This should be pre-populated. If you are able, confirm or update the respondent's answer.
6	Principal's name	Update or record the respondent's answer.
7	Principal email address	Confirm or update the respondent's answer.
8	Principal contact number (may be more than one)	Confirm or update the respondent's answer.
9	a. Grade 1 b. Grade 2 c. Grade 3 d. Grade 4 e. Grade 5 f. Grade 6 g. Grade 7 h. Pre-School i. Special needs	This is a multi-select question. Select ALL appropriate response based on the respondent's answer.

3.3. Section A – General background information

Section A has **11 questions** on the background information of the respondent and the school.

Q#	Question	Description/Considerations
A1	What is your position in the school? (most senior position)	This is a single-select question. Select the most appropriate response based on the respondent's answer.
	a. Principal b. Deputy Principal c. Head teacher/Teacher d. Teacher assistant e. Owner/Co-owner f. Other (Specify)	Where a respondent has more than one role, make sure to mark the most senior role. If there isn't a perfect match, clarify the selected answer by reading the most similar options from the list and selecting the option chosen by the respondent. If the role is not listed, you will have the option to select "other" and specify the role.
A2	Have you ever taught in a school?	This is a Yes or No question, and will show up only for those respondents who do not currently occupy a teacher role (such as teacher/head teacher or teacher assistant). Record the respondent's answer.
A3	What year did you begin teaching?	This question will only appear if Q A2 response is YES, or the respondent currently occupies a teacher role (A1) (i.e. head teacher/teacher or teacher assistant).
		The respondent is required to enter a valid year between 1950 and the current year (2022).
A4	Do you presently teach at this school?	This is a Yes or No question. Note that some respondents who occupy other roles (e.g. deputy principal) may also be teachers, as A1 records the most senior role. Record the respondent's answer.
A5	Which grades do you teach this academic year?	This question will only appear if Q A4 response is Yes (and/or the respondent has a teaching role).
	1. Grade 1 2. Grade 2 3. Grade 3 4. Grade 4 5. Grade 5 6. Grade 6 7. Grade 7 8. Pre-School 9. Special needs	This is a multi-select question. Record all responses based on the respondent's answer.
A6	What is the highest level of education that you have completed?	This is a single-select question. Select the most appropriate response based on the respondent's answer.
	a. No education or less than primary educationb. Primary education completedc. High school or secondary education	Where the respondent has a level of education that is not provided in the list, select 'Other' and complete the education details in the next question, which will ask for text input.

	completed d. Tertiary non university degree e. University degree – bachelor f. University degree - master or doctoral g. Other (Specify)	
A7	In what year did you take your present position in this school?	Record the year (format: YYYY). Note that there will be validation for this question to ensure: - that the year falls within a viable date range (I.e. 1950 to 2022) - that the year cannot be before the year the respondent began teaching (A3)
A8	What is your age (in completed years)?	This is an input-based question. The answer is required to be an integer between 18 and 100, and must be greater than the difference between the current year and the year the respondent began teaching (A3). For example, if the respondent began teaching in 1990, the number entered must be at least 32. If the respondent does not wish to answer, please enter "-99".
A9	What is your gender? Male Female Other Prefer not to answer	This is a single-select question. Select the appropriate gender based on the respondent's answer. In some countries, it may not be appropriate to ask this question, in which case it may be removed.
A10	How many students are currently enrolled in this school (in total)? An estimate is fine.	This is an input-based question. The answer is required to be an integer. Record the number of students in the school (number). If the respondent does not know the exact number, ask them to provide you with an estimate. This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.
A11	How many Grade 5 students are currently enrolled in this school (in total)? An estimate is fine.	This is an input-based question. The answer is required to be an integer. Record the number of students in Grade 5 at the primary school (number). If the respondent does not know the exact number, ask them to provide you with an estimate. There is validation for this question to ensure that the number of Grade 5 students does not exceed the number of students in the school. This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.

3.4. Section B – School leadership and ICT

Section C has **7 questions** on school management as it relates the use of ICT.

Q#	Question	Description/Considerations
B12	To what extent do you agree or disagree with the following statements about the use of ICT at your school? Strongly disagree, Disagree, Agree, Strongly agree	This is a single-select question made up of 4 statements with answer options in the format of a Likert scale. We want to know to what extent the principal/respondent agrees or disagrees with the 4 statements.
	 a. In my school, there is a digital strategy or a plan/strategy to incorporate the use of technology and/or devices into the teaching and administration of the school. b. In my school, the school leaders involve teachers in the development of the school's digital strategy. c. In my school, school leaders support teachers in trying out new ways of teaching with ICT. d. In my school, there are discussions on the advantages and disadvantages of teaching and 	Read one statement at a time, followed by the responses available: Strongly disagree, Disagree, Agree, Strongly agree. For each statement, repeat all the answer options and allow the respondent to choose the appropriate response. Select the respondent's answer. A digital strategy is a plan to incorporate the use of technology and/or devices into the teaching practices and operations of a school. This is referenced in the questions that follow. Note that if the respondent selects Strongly disagree for the first statement, the second will not appear and the survey will jump to the third statement (c).
	learning with ICT.	
B13	In your school, how important is it to ensure students have the skills to use ICT in each of the following ways? Not Important, A little important, Moderately important, Very important a. For basic computer functions (e.g. Internet use, email, word processing, presentation software). b. For accessing and using information. c. For using digital devices safely and appropriately. d. For improving their learning in non-ICT topics.	This is a single-select question made up of 4 statements with answer options in the format of a Likert scale. We want to know to what extent the principal/respondent thinks the 4 different ICT-related student outcomes are important within their school. Read one statement at a time, followed by the responses available: Not Important, A little important, Moderately important, Very important. For each statement, repeat all answer options and allow the respondent to choose the appropriate response. Select the respondent's answer.
B14	Which level of the education system is mainly responsible for integrating ICT use into schools' strategic plans?	This is a single-select question.

	a. National level b. Sub-national/local level c. School level d. No level; those responsibilities are not assigned e. I don't know	We want to know which level of the education system is most responsible for defining how ICT is integrated into the objectives, mission and values of the school. Read all the answer options and select the respondent's answer.
B15	Does your school use guidelines or supporting tools provided by the national or sub-national educational authorities on incorporating ICT into teaching and learning activities? a. Yes, and they are useful. b. Yes, but they are not very useful for what my school needs. c. No, the educational authorities do not provide these guidelines. d. I don't know about the existence of these guidelines/tools.	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection. We want to know if the principal/respondent is knowledgeable about whether or not authorities provide schools with guidelines or supporting tools for incorporating ICT into teaching and learning activities. We also want to understand to what extent these guidelines are relevant to the school. Begin by asking the question. Only if the respondent answers 'Yes', ask if the guidelines are useful or not for the school's needs.
B16	Over the last 12 months, did you attend or participate in any training on the management and use of ICT teaching and learning? a. Yes. In official training that was required by government. b. Yes. In official training with optional attendance. c. Yes. In unofficial training (e.g. meetings and workshops) with other principals/teachers where such practices were shared. d. No.	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection. We want to know if the principal/respondent has attended or participated in any trainings related to the use of ICT – whether officially organized and run by government or arranged informally e.g. by the school or a group of schools. Read the four answer options and record the respondent's answer.
B17	How was this training delivered? a. In-person training b. Remote training i.e. using online media or tele-conferencing facilities	This question will only appear if Q B16 response is (a), (b) or (c). This is a single-select question. We want to know how the principal has received the training referenced in

	c. A combination of both/blended.	the previous question. Read the three responses and record the respondent's selection.
B18	Did you find this training effective i.e. did you use anything you had learned during the training in practice following the sessions?	This question will only appear if Q B16 response is (a), (b) or (c).
	a. Yes	This is a Yes or No question. We want to understand what types of training are considered effective by principals in remote situations.
	b. No	Record the respondent's answer.

3.1. Section C – Teachers' practices related to ICT use

Section C has 7 **questions** about the practices of the Grade 5 teacher as they relate to ICT use. Before beginning this section, you will read a brief explanation about the upcoming questions.

The following 7 questions (19 to 25) refer to teachers' practices related to the use of ICT. When responding, please do so taking into account the knowledge you have of the teacher or teachers in charge of teaching grade 5 Maths or Language in your school.

If there is more than one teacher in charge of teaching grade 5 Maths or Language in your school, respond taking into account the knowledge of the teacher who is first in the list of those teachers, in alphabetical order.

It explains that the questions in section C will be related to the Grade 5 teacher in charge of teaching mathematics or (the local) language in the school. The principal may note that they don't have very good knowledge of the exact activities that are performed within all the teachers' classes. If they express reservation, encourage them to respond to the best of their ability and note that there is also the option in each question for them to respond "I don't know".

Q#	Question	Description/Considerations
C19	Considering the last 3 months , to what extent did the grade 5 teacher do the following activities at any time during <u>his/her direct class instruction</u> ? Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know	This is a single-select question made up of 6 statements with answer options in the format of a Likert scale. We want to know how often the Grade 5 teacher performed any of the six different activities in the last 3 months during their class instruction.
	 a. Use ICT to search for information during inclass discussions (e.g. in digital books, on digital platforms) b. Use ICT to present information (e.g. text, 	Read one statement/activity at a time, followed by the responses available: <i>Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know.</i>
	images, videos) during class instruction c. Use classroom management tools (e.g. Google classroom, Microsoft Teams)	For each statement, repeat all the answer options and allow the respondent to choose the appropriate response. Record the respondent's answer.
	d. Ask students to search for information (content) on the Internet	Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.
	e. Ask students to present results or outputs using digital tools	
	f. Use digital tools to assess students' learning (e.g. tests, online quizzes, etc.)	

C20 During the last 3 months, to what extent did the Grade 5 teacher do the following activities using digital devices (e.g. computer, tablet, smartphone, etc.) while preparing or planning his/her lessons?

Never or hardly ever, Once or twice a month, Once or twice a week, Every day or almost every day, I don't know

- a. Search for lesson/educational content to use in the classroom (resources on the Internet, on education portals, etc.).
- b. Share educational content with other teachers.
- c. Participate in a project developed with other teachers and educators.
- d. Prepare presentations or other educational materials to use for teaching.
- e. Develop or deepen knowledge about the use of teaching and learning technologies.
- f. Carry out administrative class management (e.g. recording absenteeism, producing grade reports, etc.).

This is a single-select question made up of 6 statements with answer options in the format of a Likert scale.

We want to know if the Grade 5 teacher performed any of the six different activities using digital devices in the last 3 months while preparing or planning his/her lessons i.e. outside of the classroom context. Note the distinction between lesson preparation and direct class instruction for this question compared to the last

Read one statement/activity at a time, followed by the responses available: *Never or hardly ever, Once* or twice a month, Once or twice a week, Every day or almost every day, I don't know.

For each statement, repeat all the answer options and allow your respondent to choose the appropriate response. Record the respondent's answer.

Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.

C21 How confident are you that the Grade 5 teacher can perform the following tasks using ICT?

Not confident at all, A little confident, Moderately confident, Very confident, I don't know

- a. Contribute to a discussion forum or user group on the Internet (e.g. a wiki or blog).
- b. Produce presentations (e.g. using Microsoft PowerPoint or a similar program) to be used during class.
- c. Prepare lessons that involve the use of ICT by students.
- d. Use a spreadsheet program (e.g. Microsoft Excel) for keeping records or working with data.
- e. Assess student learning using ICT.
- f. Collaborate with colleagues using shared resources (e.g. Google Docs, OneNote).

This is a single-select question made up of 6 statements with answer options in the format of a Likert scale. We want to know how confident the principal/respondent is that the Grade 5 teacher can generally perform any of the six different ICT-related activities.

Read one statement/activity at a time, followed by the responses available: Not confident at all, A little confident, Moderately confident, Very confident, I don't know.

For each statement, repeat all the answer options and allow your respondent to choose the appropriate response. Record the respondent's answer.

Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.

C22	Is there a framework or set of guidelines that defines the digital competences* that a teacher is expected to have or develop? A digital competence is the knowledge, skills and attitudes that are required when using ICT and digital media to communicate, access, manage, combine, share and evaluate information in order to perform tasks or solve problems. a. Yes, and this framework/set of guidelines is useful. b. Yes, but the framework/set of guidelines is not relevant within this school. c. No, there isn't a framework/set of guidelines. d. I don't know of such framework/guidelines.	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection. We want to know if the principal/respondent knows if there is a digital competency framework (DCF) or a set of guidelines defining digital competences for teachers in your country. We also want to understand to what extent these guidelines are relevant to the school. A digital competence is the knowledge, skills and attitudes that are required when using ICT and digital media to communicate, access, manage, combine, share and evaluate information in order to perform tasks or solve problems. In this case, we are referring specifically to a framework that defines the competences of <i>teachers</i> . Begin by asking the question. Only if the respondent answers 'Yes', read the two yes options and record the appropriate answer.
C23	During the last school year, was the Grade 5 teacher formally evaluated on their use of ICT?	This is a Yes/No question.
	a. Yes b. No c. I don't know	We want to know if the principal/respondent is aware of whether or not the Grade 5 teacher has been formally assessed in their ICT skills within the last year.
C24	Did the initial training program taken by the Grade 5 teacher in your school include the following elements? Yes, No, I don't know a. Learning how to use ICT generally. b. Learning how to use ICT in teaching.	This is a Yes/No question. We want to know if the principal/respondent is aware of whether or not the teacher training program taken by the Grade 5 teacher in their school includes modules related to (i) using ICT generally for their professional/administrative work — unrelated to teaching, and (ii) using ICT in teaching activities. Read one statement at a time, followed by the responses available: Yes, No, I don't know. Record the respondent's answer.
C25	Over the last 12 months, did the Grade 5 teacher participate in any professional development activities on using ICT in teaching and learning practices? a. Yes. In official training that was required by government.	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection. We want to know if the principal/respondent knows if the Grade 5 teacher took part in any professional development activities or trainings related to

b. Yes. In official training with optional attendance.

c. Yes. In unofficial training (e.g. meetings) with other principals/teachers where such practices were shared.

d. No.

e. I don't know.

incorporating ICT into teaching and learning practices, over the past year.

Begin by asking the question. Only if the respondent answers 'Yes', read the two yes options and record the appropriate answer.

3.2. Section D – Students' practices related to ICT use

Section D has **6 questions** about the practices and activities of the Grade 5 students as they relate to ICT use. Before beginning this section, you will read a brief explanation about the upcoming questions.

The following 6 questions (26 to 31) refer to students' practices related to the use of ICT for learning and associated regulations. When responding, please do it based on the knowledge you have of the Grade 5 students in your school.

It explains that the questions in section D will be related to the activities of the Grade 5 students in the school. The principal may note that he/she does not have a very good knowledge of the exact activities that are carried out by the students. If they express reservation, encourage them to respond to the best of their ability and note that there is also the option in each question for them to respond 'I don't know'.

Q#	Question	Description/Considerations
D26	Thinking about the last 3 months, how often do the Grade 5 students <u>use digital devices</u> (e.g. digital television, computers, tablets) for the following activities while in school ?	This is a single-select question made up of 6 statements with answer options in the format of a Likert scale. We want to know how regularly the Grade 5 students have used digital devices for six different school-based activities during school hours
	Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know.	in the last 3 months.
	a. Searching for information or data for a project.	Read one statement/activity at a time, followed by the responses available: Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know.
	b. Communicating with other students on projects.	For each statement, repeat all the answer options and allow your respondent to choose the
	c. Sharing assignment results or other schoolwork with other students.	appropriate response. Record the respondent's answer.
	d. Submitting completed work for assessment.	Where necessary, you may need to repeat or reiterate sections of the main question, as the
	e. Evaluating information resulting from a search.f. Producing a document, presentation, or	question is long and relatively complex.
	creating visual outputs or videos.	
D27	Thinking about the last 3 months, how often do the Grade 5 students <u>use digital devices</u> for the following activities outside of school?	This is a single-select question made up of 5 statements with answer options in the format of a Likert scale. We want to know how regularly the Grade 5 students have used digital devices for six
	Never or hardly ever, Once or twice a month, Once or twice a week, Every day or almost every day, I don't know.	different school-related activities when they are outside the school in the last 3 months.

	 a. Browsing the Internet for schoolwork (e.g. when preparing for an essay or presentation). b. Using a messaging application (e.g. WhatsApp, Facebook Messenger) or social networks (e.g. Facebook, Twitter) for communication with teachers. c. Using email for communication with teachers and submission of homework or other schoolwork. d. Doing homework on a digital device. e. Using learning apps or learning websites on a digital device. 	Read one statement/activity at a time, followed by the responses available: Never or hardly ever, Once or twice a month, Once or twice a week, Every day or almost every day, I don't know. For each statement, repeat all the answer options and allow your respondent to choose the appropriate response. Record the respondent's answer. Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.
D28	Approximately what proportion of the Grade 5 students do you think can perform the following activities independently (without assistance)? Almost all, More than half, About half, Less than half, None, I don't know a. Open a new tab in a browser. b. Save a photo that they find online. c. Find a website they have visited before. d. Check if the information they find online is true. e. Post online videos or music that they have created themselves. f. Make basic changes to online content that others have created.	This is a single-select question made up of 6 statements with answer options in the format of a Likert scale. We want to know approximately what proportion of the Grade 5 students can perform ICT-related tasks without assistance from another person. Read one statement/activity at a time, followed by the responses available: Almost all, More than half, About half, Less than half, None, I don't know For each statement, repeat all the answer options and allow your respondent to choose the appropriate response. Record the respondent's answer. Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.
D29	Does the educational curriculum recommend using ICT in teaching of Grade 5 students? a. Yes, it does b. No, it does not c. I don't know	This is a Yes/No question. We want to know if the principal/respondent is knowledgeable about whether or not the local education curriculum recommends incorporating ICT into the teaching and learning activities of Grade 5 students in particular. Read the question, followed by the responses available: Yes, No, I don't know. Record the respondent's answer.

D30	Is there a framework or set of guidelines defining the digital competences* that a student is expected to have or develop?	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection.
	A digital competence is the knowledge, skills and attitudes that are required when using ICT and digital media to communicate, access, manage, combine, share and evaluate information in order to perform tasks or solve problems. a. Yes, and this framework/set of guidelines is	We want to know if the principal/respondent knows if there is a digital competency framework (DCF) or a set of guidelines defining digital competences for students in your country. We also want to understand to what extent these guidelines are relevant to the school.
	useful. b. Yes, but this framework/set of guidelines is not	A digital competence is the knowledge, skills and attitudes that are required when using ICT and digital media to communicate, access, manage,
	relevant within this school. c. No, there isn't a framework/set of guidelines.	combine, share and evaluate information in order to perform tasks or solve problems. In this case, we are referring specifically to a framework that defines the
	d. I don't know of such a framework/guidelines.	competences of <i>students</i> . Begin by asking the question. Only if the respondent
		answers 'Yes', read the two yes options and record the appropriate answer.
D31	During the last school year, were the digital competencies of the Grade 5 students formally	This is a Yes/No question.
	evaluated/assessed?	We want to know if the principal/respondent knows if the Grade 5 students have been formally assessed
	a. Yes b. No	in the use of ICT during the last school year.
	c. I don't know	Read the question, followed by the responses available: <i>Yes, No, I don't know.</i> Record the respondent's answer.

3.3. Section E - Digital devices and internet connectivity

Section E has **13 questions** related to digital devices and Internet connectivity in the school.

Q#	Question	Description/Considerations
E32	How many digital devices (specifically desktop computers, portable computers and/or tablets) are at this school? This includes all devices that might be used by staff or students in the school. An estimate is fine.	This is an input-based question. The answer is required to be an integer. If the respondent does not know the exact number, ask them to provide you with an estimate.
		If appropriate, walk the respondent through the possible areas where devices might be used e.g. in classrooms, computer laboratories, the library and the staff rooms. Try to help them estimate the number.
		Record the number of devices that are available (to both staff and students) at the school.
		This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.
E33	How many of those digital devices are currently in working condition at this school? An estimate is fine.	This is an input-based question. The answer is required to be an integer. If the respondent does not know the exact number, ask them to provide you with an estimate. Record the number of devices that are in working condition at the school
		There is validation for this question to ensure that the number of working devices does not exceed the number of devices at the school (E32). It must also be greater than or equal to zero.
		This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.
E34	Out of the digital devices that are currently working, how many are available for students to use in learning activities? An estimate is fine.	This is an input-based question. The answer is required to be an integer. If the respondent does not know the exact number, ask them to provide you with an estimate. Record the number of devices that are available to students for use in learning activities.

		There is validation for this question to ensure that the number of working devices available does not exceed the number of working devices in the school (E34). It must also be greater than or equal to zero. This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.
E35	Does your school have digital devices that are adapted for the use of students with disabilities (e.g. increased font size or contrast, reading text aloud, special keyboard or mouse)?	This is a Yes/No question. We want to know if the school has devices that cater for the students who are disabled in any way e.g. hearing, reading, visual, physical, etc.
	a. Yes b. No c. I don't know	Read the question, followed by the responses available: <i>Yes, No, I don't know</i> . Record the respondent's answer.
E36	How often did the Grade 5 students use these digital devices in class in the last month? a. Never or hardly ever	This is a single-select question with answer options in the format of a Likert scale. We want to know how often the Grade 5 students used the devices available to them at the school in the last month.
	b. Once or twice a month	Read the question, followed by the responses available and record the respondent's answer.
	c. Once or twice a weekd. Every day or almost every day	
	e. I don't know.	
E37	Does this school have Internet access? a. Yes. b. No.	This is a Yes/No question. We want to know if the school has access to the Internet (in a consistent, usable way). If the respondent implies that the Internet is not reliable or usable, confirm that this is the case before marking 'No'. Read the question, followed by the responses available: Yes or No. Record the respondent's
E38	Approximately, how many of all digital devices	answer. This is an input-based question. The answer is
LJO	(computers, portable computers and tablets) available to students in the school are connected to the Internet?	required to be an integer. If the respondent does not know the exact number, ask them to provide you with an estimate. Record the number of devices at the school that are available to students and connected to the Internet.
		This question will only show up if the respondent selects indicates that the school does have Internet access (E37) and there is at least one device in the

		school (E32) and at least one device available to students (E34). There is validation for this question to ensure that the number of devices connected to the Internet does not exceed the number of working devices available to the students at the school (E35). The number is also required to be greater than or equal to zero. This question should be shared with the respondent ahead of the interview in order to allow them time to collect the data before the questionnaire is administered.
E39	To what extent do you agree with the following statements about your school? Strongly disagree, Disagree, Agree, Strongly agree a. The number of digital devices for instruction is sufficient to support teaching and learning effectively. b. The number of digital devices connected to the Internet is sufficient to support teaching and learning effectively. c. The school's Internet bandwidth or speed is sufficient to support teaching and learning effectively. d. The school's Internet stability (i.e. connection without service interruption) is sufficient to support teaching and learning effectively. e. There is sufficient technical support to maintain ICT resources so that they are fully functional.	This is a single-select question made up of 5 statements with answer options in the format of a Likert scale. We want to know if the principal/respondent agrees with statements about the provision of digital devices and connectivity in the school Read one statement/activity at a time, followed by the responses available: Strongly disagree, Disagree, Agree, Strongly agree. For each statement, repeat all the answer options and allow the respondent to choose the appropriate response. Record the respondent's answer.
E40	If your school has problems with Internet connectivity, such as stability, low bandwidth, etc., is there a system or mechanism at the government level to assist you and resolve the problem? a. Yes, I have used it. b. Yes, but I have not used it. c. No, there is no system.	This is a Yes/No question. We want to know if the school has access to a government-run body or system that provides support to help with Internet connectivity problems (such as poor stability, low bandwidth, disconnection, etc.). We also want to understand if this system is used by the school. Read the question, followed by the responses available: Yes, No, I don't know. Record the respondent's answer.

	d. I don't know.	
E41	Do you know if there are standards in place which require that students in all [public/private] schools have access to functioning digital devices (PCs, laptops, tablets and/or other digital devices)? a. Yes b. No c. I don't know	This is a Yes/No question. We want to know if the principal or respondent is aware if there are policies or standards in the education system which require that students have access to digital devices. Read the question, followed by the responses available: Yes, No, I don't know. Record the respondent's answer.
E42	Does the government have any strategy or plan to provide or facilitate Internet connectivity to all public schools? a. Yes b. No c. I don't know	This is a Yes/No question. We want to know if the principal or respondent is aware of any government strategies or initiatives that aim to provide access to the Internet in all public schools. Read the question, followed by the responses available: Yes, No, I don't know. Record the respondent's answer.
E43	Is there someone or any institution or mechanism (such as education information system, regular survey, etc.) that monitors the following? Yes, there is, No, there isn't, I don't know a. That all public schools have access to functioning digital devices (PCs, laptops, tablets, mobiles, etc.). b. Availability of an Internet connection. c. If digital devices and connectivity are used by the students.	This is a Yes/No question. We want to know if the principal/respondent is aware of a person, body or institution which monitors three different indicators related to the use of ICT in education. Specifically, we want to know if the principal is aware of a body which monitors (i) if public schools have functioning ICT (computers and devices for both teachers and students), (ii) if public schools have an Internet connection and (iii) if ICT devices and technologies are used by students at the school. Read one statement at a time, followed by the responses available: Yes, No, I don't know. Record the respondent's answer. Where necessary, you may need to repeat or reiterate sections of the main question, as the question is long and relatively complex.
E44	Is there government legislation that assigns responsibility for maintaining public school ICT infrastructure and/or technical support? a. Yes, those responsibilities are mainly assigned to the national government level. b. Yes, those responsibilities are mainly assigned to the subnational/local education authority level.	This is a composite Yes/No question i.e. if the respondent picks 'Yes', there are two options available for selection. We want to know if the principal/respondent is aware of legislation or a set of laws that assigns responsibility for maintaining ICT infrastructure and/or technical support at public schools and, if so, at which level the responsibility is held.

b. Yes, those responsibilities are assigned to the school level.c. No, those responsibilities are not given to any level of school government.	Begin by asking the question. Only if the respondent answers 'Yes', ask if the responsibilities are mainly assigned to the national level, subnational/local level or the school level. Record the appropriate answer.
d. I don't know.	

3.4. Section F – Digital education resources

Section F has **3 questions** about the use of digital education resources in the school.

Q#	Question	Description/Considerations
F45	To what extent do you agree or disagree with the following statements about using digital learning resources in teaching at your school? Strongly disagree, Disagree, Agree, Strongly agree a. My school has access to sufficient digital	This is a single-select question made up of 5 statements with answer options in the format of a Likert scale. We want to know if the principal/respondent agrees with statements about the availability of digital learning or education resources at the school.
	learning resources (e.g. learning software or apps). b. The available digital learning resources are of adequate quality.	Digital education resources are tools or pedagogical resources that support learning outcomes and which are in electronic format such as software, videos, ebooks, databases, tools, animations and simulations.
	c. The available digital learning resources are aligned to the needs of the curriculum.	Read one statement at a time, followed by the responses available: Strongly disagree, Disagree, Agree, Strongly agree.
	d. The available digital learning resources are adapted to the local context and language needs. e. The available digital learning resources are adapted for the use of students with disabilities.	For each statement, repeat all the answer options and allow your respondent to choose the appropriate response. Record the respondent's answer.
		Where necessary, you may need to repeat or re-iterate sections of the main question, as the question is long and relatively complex.
F46	How often did the Grade 5 teacher use the following tools in her/his teaching this school year?	This is a single-select question made up of 5 statements with answer options in the format of a Likert scale. We want to know how often the Grade 5 teacher uses digital education resources in teaching
	Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know	and learning activities at school. Digital education resources are tools or pedagogical
	a. Computer-based information resources (e.g. topic-related websites, wikis, encyclopedias).b. Digital resources linked with school textbooks.	resources that support learning outcomes and which are in electronic format such as software, videos, ebooks, databases, tools, animations and simulations.
	c. Digital learning games.	Read one statement at a time, followed by the responses available: Never or hardly ever, In some lessons, In most lessons, In every lesson, I don't know.
	d. Collaborative software (e.g. Google Docs, OneNote).	For each statement, repeat all the answer options and allow your respondent to choose the appropriate
	e. Graphing or drawing software (e.g. Paint, drawing tools).	response. Record the respondent's answer.
	f. Word-processor software (e.g. Microsoft Word).	Where necessary, you may need to repeat or re-iterate sections of the main question, as the question is long and relatively complex.

	g. Presentation software (e.g. Microsoft PowerPoint).	
F47	Is there government legislation/policy about digital education resources (DERs) that defines any of the following? Yes, No, I don't know a. A strategy for ensuring that public schools have access to digital educational resources. b. Quality standards for digital educational resources. c. How DERs should be aligned to the curriculum's requirements. d. How DERs should be adapted to the local culture or language. e. How DERs should be adapted for the use of students with disabilities.	This is a Yes/No question. We want to know if the principal/respondent is aware of government legislation or a set of laws related to digital education resources in schools and understands the content of those policies. Read one statement at a time, followed by the responses available: Yes, No, I don't know. Record the respondent's answer. Where necessary, you may need to repeat or re-iterate sections of the main question, as the question is long and relatively complex.

4. Glossary

Digital Competency Framework (DCF) – A Digital Competence Framework is a framework or set of guidelines which defines the digital competences that an individual is expected to have. A digital competence is the knowledge, skills and attitudes that are required when using ICT and digital media to communicate, access, manage, combine, share and evaluate information in order to perform tasks or solve problems.

Digital device – A digital device is an electronic device that can create, receive, process, store, send and display information. These include, but are not limited to, personal computers (PCs), laptops, tablets, mobile phones, smartphones and similar storage devices.

Digital Education Resource (DER) – Also known as digital learning resources, DERs are pedagogical resources that support learning outcomes and which are in electronic format and include text, images, audio, video and sound. They can take the form of e-books, learning software, videos, databases, tools, animations and simulations.

Digital strategy – A digital strategy is a plan to incorporate, promote, and enable the use of technology (hardware, software) and/or devices into the teaching practices and operations of a school. It can include aspects such as technological components, but also pedagogical and monitoring and evaluation related aspects.

Information and Communications Technologies (ICT) – Information and communications technologies is an umbrella term that refers to technological tools and resources that transmit, store, create, share or exchange information. They include computers, the Internet (websites, blogs and emails), live broadcasting technologies (radio, television), recorded broadcasting technologies (podcasting, audio and video players and storage devices) and telephony (mobile phones, landlines, satellite, video-conferencing, etc.).

Legislation – Government legislation is a set of laws or policies that have been passed by the government (or parliament, if appropriate) of a country, which govern how activities should be run.

Mechanism – A mechanism is a separate body, organization, committee or bureau that has been given responsibility by the government for promoting, coordinating and ensuring correct implementation of ICT in education. In this survey, it is used to describe a body or system that has been set up to achieve an education-related output e.g. monitoring the availability of Internet in public schools, assessing teacher's competencies, etc.

Plan – A plan is a government-issued document on how its goals in ICT in education are to be achieved within a specified timeframe. It details each activity to be undertaken, the method employed for implementation, the timeframe, the resources required and the actors responsible for implementing each activity.

Policy – A policy is a government-issued document which sets out the principles, guidelines and strategy for ICT in education. It is distinct from rules or legislation which can compel or prohibit specific actions, and instead guides actions towards a desired outcome.

