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Nepal “Ask me anything” session: Responses to audience questions

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Introduction

On Thursday, 30 April 2020, the EdTech Hub participated in an “Ask me anything” session for policy-makers and funders in Nepal. The session focused on designing high-quality, effective, distance education programmes during the COVID-19 pandemic. Participants included high-level officials from the Nepalese government (e.g., the Ministry of Education, Science and Technology, the Curriculum Development Office and the Education Review Office), representatives from development partners (e.g., the World Bank, UNICEF and USAID) and other education organisations (e.g., OLE Nepal).

The session was convened for two purposes. First, to consider international good practice and current trends in distance education during the COVID-19 pandemic, presented by the World Bank EduTech team and the EdTech Hub. Second, for the EdTech Hub team to gather questions from participants, to be able to target guidance specifically to the situation in Nepal.

This document provides answers to a consolidated list of 10 questions received from stakeholders during the session. To consolidate any overlap, we have occasionally combined multiple questions into one. In other cases, where multiple important issues required a focused response, we split apart questions. The questions addressed in this document are:

- Question 1. How can we use multi-modal distance learning to reach all children? In particular, what support can be provided to children in remote areas who have no internet, phone, or radio service?
- Question 2. Which tools are being used to support governments to implement distance education while children are out of school? Many students in Nepal do not have access to smartphones. Can we somehow use regular mobile phones?
- Question 3. Do different tools work better for different grades?
- Question 4. How do you align materials to the curriculum?
- Question 5. How can we support teachers and help them develop their capacity to deliver child-centred distance learning?
- Question 6. How can we hold teachers accountable during this period?
- Question 7. How can we help illiterate or low-literacy parents to support their children’s learning other than with actual schoolwork?
- Question 8. How can assessment be best undertaken when delivering distance education? Can you provide guidance on ideas / tools / methods to undertake formative and summative assessment remotely?
- Question 9. Many parents and teachers are not aware of many of the resources available to them to support distance learning. How can we help make these groups more aware of the tools at their disposal?
- Question 10. In a setting where parents have little income, children may be asked to help earn additional income. How do we minimise this risk?

The above questions are also relevant to audiences beyond Nepal. They are generally representative of questions we receive from similar groups around the world. Therefore, this document has been made publicly available to provide insights to policy-makers, programme funders, private sector actors, and other stakeholders working on EdTech.

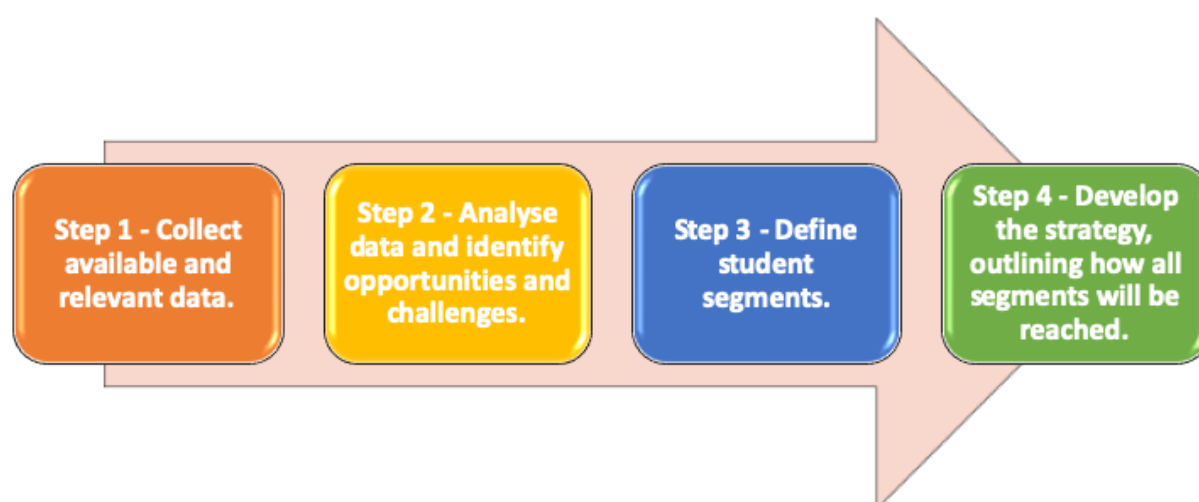
A list of other relevant resources developed by the EdTech Hub is available at the end of the document.

Questions and Answers

Question 1. How can we use multi-modal distance learning to reach all children? In particular, what support can be provided to children in remote areas who have no internet, phone, or radio service?

Providing educational opportunities to students during the COVID-19 pandemic requires an evidence-based, multi-modal strategy that identifies how all learners within a country can be best served. Governments should consider following the process outlined in Figure 1 to develop this strategy.

Figure 1. Process for developing an education strategy in response to the COVID-19 pandemic



Step 1. Collect available and relevant data

Governments should collect any available, relevant data from sources within and outside the Ministry of Education. Relevant data to help select and combine modalities to reach learners could include: internet or device ownership or access rates, whether existing distance education tools (e.g., TV or radio) are already being used, and the current status of other essential services (e.g., healthcare, feeding, etc.), that could be leveraged to support education programming. [Annex 1](#) contains a list of data items that might be useful to collect. All these data points should be disaggregated as far as possible to support more refined planning (e.g., by gender, by location, by socio-economic group). Identifying and obtaining the most relevant data points may be

an iterative process. It should continue across the life of any educational response strategy to support adjustments as necessary.

Step 2. Analyse data and identify assets and challenges

Once obtained, data should be analysed to identify available assets, opportunities and challenges in the education system and how these relate to providing distance education. While assets and challenges are specific to national contexts there are some emerging areas of commonality around the world.

For example, common assets include:

- pre-existing distance education tools,
- Open Educational Resources (both in the public and private sectors),
- increasing prevalence of internet and smartphone availability in low-income countries, and
- the willingness of private sector firms to support education initiatives, particularly during the current crisis.

Common challenges include

- the high costs of mobile or wired internet data,
- the diversity of contexts students face within a country, and the
- lack of existing open educational resources available free of charge for students.

Step 3. Define student segments

Students have different circumstances and different learning settings. Identifying student segments, who share common circumstances and settings, can help determine how to implement distance learning so that it meets student needs. Students might be segmented in a variety of different ways including

- location (e.g., urban, regional, rural, remote),
- socio-economic status (low- through to high-income),
- access to modalities (internet, phone, etc.),
- age groups (primary, secondary),
- special educational needs or disabilities, as well as
- belonging to specific marginalised groups (e.g., by gender).

As much detail as possible should be included in identifying student segments, as this forms the foundation of Step 4. Only by clearly and accurately identifying the diversity, size and location of each group is it possible to develop a strategy to address all needs. Once segments have been identified, the diagram in Figure 2 can be used as a tool for how governments might conceptualise different student segments. Using this chart, governments can map the availability of different modalities for each segment of students. This can help in identifying ways to meet the needs of each segment. Figure 3 provides an example of how the tool might look when completed. It identifies how different population segments might be mapped on the tool.

Figure 2. Radar chart on technology

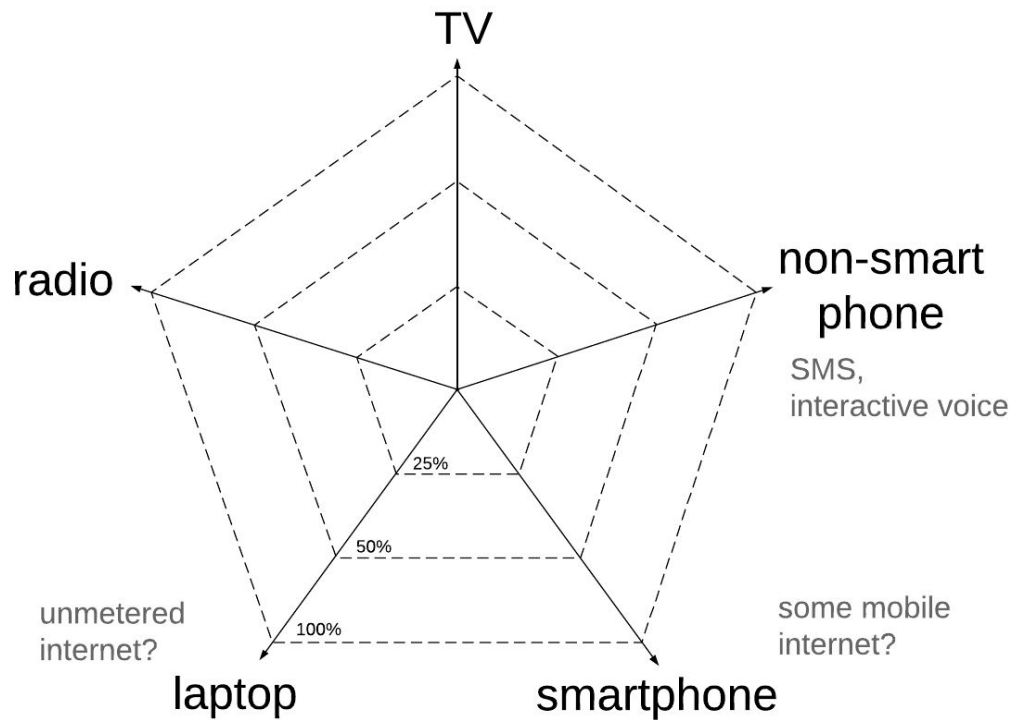
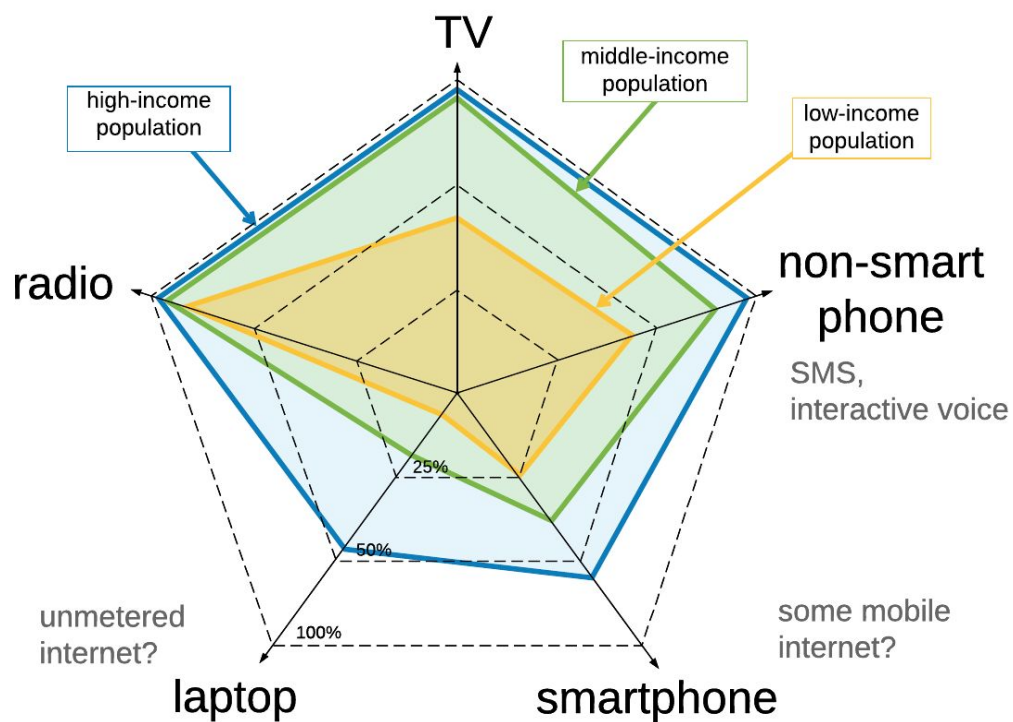


Figure 3. Radar chart on technologies completed for different population segments



Step 4. Develop the strategy, outlining how all segments will be reached

Developing a multi-modal strategy — that identifies how each segment will be supported to undertake distance learning activities — should be a precursor to implementation. We emphasise that it is important that the strategy is multi-modal. For example, if a country has a student segment with high levels of internet access, then online learning can be deployed for that student segment. However, audio instruction or video instruction should be included in the strategy to provide education for student segments for which internet access is limited. Additionally, governments can integrate modalities to increase families’ awareness of available resources. For example, existing online resources could be advertised through radio and TV programming.

Question 2. Which tools are being used to support governments to implement distance education while children are out of school? Many students in Nepal do not have access to smartphones. Can we somehow use regular mobile phones?

Any strategies to mitigate the COVID-19 crisis should be designed in a way that maximises the effectiveness, efficiency and equity of services provided. Countries should develop responses that leverage multiple modalities aligned with the national context (e.g., socio-economic factors, national demographics, infrastructure, state of the national education system).

Countries should also take stock of, and where possible, leverage, existing ICT infrastructure. It is impossible to significantly increase infrastructure on the timescales that are required for an immediate response. Countries should, therefore, refrain from attempting to build new infrastructure to specifically respond to the COVID-19 crisis. Expanding infrastructure should happen as part of clear plans to create resilience against the kinds of challenges raised by the COVID-19 crisis. For any infrastructure built, continued relevant use should be considered.

Across the many and diverse contexts globally, six types of technology are most commonly being used to support distance learning. These are

- Print-media (including printed books and newspapers);
- Radio (delivered via radio sets and non-smartphones);
- TV (video);
- Non-smartphones (SMS, calls, interactive voice);
- Smartphones (small-screen learning, likely using mobile internet);
- Laptops (large-screen learning, likely using broadband or mobile internet).

These are most powerful when deployed in an integrated, multi-modal strategy designed to meet the needs of all students. For example, children might watch educational content on TV and then interact with SMS quizzes. The responses to these quizzes allow teachers to see whether the children have understood the content.

Print-media (including printed books and newspapers)

Some countries have been using printed resources as the foundation for distance learning. [Printed materials may come in a number of forms](#). These materials might include textbooks, supplementary reading material, exercises and assessments. Printed materials might also come in the form of packs of resources or exercises in newspapers,

specifically designed to support remote learning during the COVID-19 crisis. Any printed materials should include guidance to support students and parents to integrate them with any other available tools or modalities.

In the race to use technology to support online learning, print materials are often forgotten. However, they are generally the most accessible and equitable option to support distance learning — both in terms of access by students who do not have access to devices and / or connectivity at home, and in terms of government readiness to distribute materials.

In cases where students were given enough warning of school closures to take existing print resources home, government responses can make use of these resources. If schools closed with little notice, or additional print materials are required, [options for dissemination](#) include sharing electronic copies of printed materials via email, or distributing materials in parallel to other scheduled events (e.g., food distribution) should be considered.

Radio (delivered via radio sets and non-smartphones)

Radio-based education comes in [various forms](#), primarily including radio broadcasts, [Interactive Radio Instruction \(IRI\)](#) and other educational programming. Radio broadcasting supports remote learning in various contexts, particularly in hard-to-reach areas, areas where teacher capacity is low, or areas without internet connectivity. Unlike typical radio broadcasts that may seek to emulate non-interactive lessons, IRI uses structured learning episodes to prompt students and facilitators to perform learning tasks.

Most IRI programmes focus on core subjects with learning tasks including quizzes, written exercises, role play and storytelling. Other educational broadcasting could include radio drama, music and other genres.

The benefits of radio include lower content development costs than more tech-advanced tools, wide usability, and proven success over time. While not all countries have high levels of radio access, radio broadcast services can also be accessed via feature phones or online. Additionally, content can be shared in the form of MP3 files, supplied via a pre-recorded mechanism (e.g., online audio files, USB sticks or CD ROMs), or be shared via the internet (e.g., via email or WhatsApp). This means that governments' return on investment of producing radio content can be compounded by leveraging the content on other tools.

TV (video)

TV/video-based education supports learning in various ways for students of different ages and ability levels. Educational TV programming can be highly engaging for students and can include cartoons, animations, science shows, and history documentaries. Such programming is valuable when made available to relevant age groups. Prior to the COVID-19 crisis, the use of television to support education was already beginning to grow. Examples of this phenomenon include [Ubongo Kids](#) and [Korea's Educational Broadcasting System](#).

The use of video to support education has expanded further during the COVID-19 pandemic. For example, in Kenya, all TV signal distributors are currently required to

carry the EDU TV channel. This ensures that families with a TV can access some form of home-based education. The broadcasts deliver educational content [24 hours a day](#), offering a range of subject and grade-level offerings. Offerings are also rebroadcast on a [dedicated Youtube channel](#) to ensure that content is available to those with internet access at any time.

A common use of video is to deliver recorded lessons. Great care should be taken that these are engaging for children and delivered appropriately. Where video lessons emulate ‘talk and chalk’ approaches, learning outcomes are likely to be limited. Video lessons may be particularly useful in higher grades, where students have greater patience.

While TV is one of the most commonly used video-education mechanisms, video content can also be made available online. This means that, similar to audio, content can be reused across multiple mechanisms, enhancing education accessibility and equity.

Non-smartphones (SMS, calls, interactive voice)

Non-smartphones can be used to support communication about education generally. Examples include school Whatsapp groups, and using SMS as a mechanism to administer behavioural nudges to encourage parents to support their children in their learning activities.

Non-smartphones are also able to support learning in many ways. [M-Shule](#) and [Eneza](#) deliver adaptive learning content via SMS to millions of students across Africa. In Bangladesh, the international development organisation, BRAC, is providing teachers with phones to host small-group audio lessons of approximately 30 minutes with four learners at a time. The African Union is using [interactive voice recognition to deliver language education services](#).

Smartphones (small-screen learning, likely using mobile internet)

Smartphones allow students to access digital learning tools wherever connectivity is available. Smartphones open up a wide variety of learning opportunities that traverse both the features outlined in non-smartphones above, as well as those accessible on laptops and other large-screen devices outlined below.

In addition to replicating access to content found on these tools, smartphones also host a wide array of learning applications that can support high-quality distance learning. Additionally, many applications have been built by entrepreneurs from, and designed for, low- to middle-income contexts. While these apps are often not built to exactly follow a specific curriculum and are not endorsed by governments, they provide high-quality, relevant additional content. [Khan Academy](#) resources are a good example of content that is relevant in many contexts and languages.

When designing for smartphones, educational content must be created to suit smaller screens, and in some cases, lower bandwidth. Applications provided by governments often are accessible either through a smartphone or a computer. Since these applications require a lot of internet data, especially when there is video content,

[governments often use their leverage](#) to strike deals with telecom providers to [lower or remove costs](#) for educational data, or pay for extra data for students.

Laptops (large-screen learning, likely using broadband or mobile internet)

Online learning uses the internet to deliver content to students in various ways, across multiple platforms. Online content ranges from online classes with discussion forums to videos, e-books and interactive games, through to chat rooms for tutoring sessions, or lecture-style presentations. Online learning can be particularly valuable as content developed for other platforms (radio, TV, etc.,) can be included in online learning packages.

In addition to reusing content developed for other mechanisms, there are many online-specific learning tools that support distance education. Many countries are investing in [learning management systems](#) so they are more resilient if schools close again. There are also many computer and phone-based online learning applications available which can support countries' diverse distance learning needs.

Question 3. Do different tools work better for different grades?

There are various factors to consider when determining which tools can drive the best learning outcomes for different student levels. Some mediums require higher digital literacy than others. The role of parents and caregivers varies depending on a student's age and grade. Younger children, in the earlier grades, rely more on parents to support sophisticated technology than older children. Programmes or plans that assume the continuous presence of a parent may have unrealistic expectations and are less likely to be effective. Some tools are simpler than others and require less support. For example, most students find print books easy to use. Early primary students require help, but even parents with low literacy rates understand the concept and usually the content of books. Countries often have [different approaches](#) to remote learning for primary- and secondary-grade learners.

In early grades, radio and TV are relatively straightforward and easy to use. Timings are predictable, and parents are able to help children turn on a device and tune in to the right channel. And while their continuous presence is preferable, in practice, parents can carry on with their own business. Ensuring broadcast times are well communicated is key to user uptake. Broadcasting 'horizontally' allows parents to plan their day: for example grades 1–3 at 10:00; grades 4–6 at 11:00. Consistency across days is also recommended.

For older children, more modalities can be introduced. TV and print can be used in combination with SMS services, for example. Online resources are also useful for learners at the secondary level. However, in addition to pre-conditions (students having access to devices, internet, and the amount of internet data available), online resources must be offered in a structured way. Even then, students may easily get lost, even if the interface seems clear and straightforward. Even today, students who spend time on devices may [not be digitally literate](#). One side-effect of the COVID-19 crisis is that students cannot help each other or learn from their peers face to face. However, peers may still be able to assist fellow students or parents who have access to infrastructure but do not know how to use it.

Question 4. How do you align materials to the curriculum?

Designing remote- or blended-learning solutions should entail an analysis of the curriculum, a mapping of content against the curriculum, and the creation of curriculum-aligned content. This process may be too lengthy for the current COVID-19 crisis. At the same time, finding existing content to map to the curriculum is necessary to quickly serve the community.

Content can come from various sources:

1. Content that may already exist in the country;
2. Content that can be taken from [Open Source repositories](#);
3. Content that can be taken from proprietary sources that have been made free to use for a limited time period;
4. Content that can be bought from proprietary sources;
5. New content can be developed.

In general, [existing local content](#) is preferable. It is likely to match the curriculum and account for local sensitivities, and is more likely to be in the official language of instruction. However, local content may not cover all subjects or may be insufficient in other ways. In that case, Open Educational Resources or proprietary content can be curated and aligned with the curriculum.

Content has to be appropriate for the learning levels of students. Rather than focussing overly on specific grades, content based on the learning levels of students in a grade, or even students in different grades can be sourced. For example, mathematics content for Grade 8 may be a good reinforcer for Grade 9 or Grade 10 students. Presenting appropriate content to clusters of students is, then, an effective and quick solution until more content is in place, or until the need disappears.

Consider what content needs to be translated. Open Educational Resources can be translated e.g., from English into the national language(s) of instruction. Video content can be comparatively cheaply and quickly dubbed in the language of instruction. We note that proprietary content typically does not allow for modifications or translation.

Only if Open Educational Resources and proprietary content resources have been exhausted, should countries consider filling in gaps by creating new content. A worksheet or PDF is cheaper and faster to create than voice or audio content. Audio is cheaper and faster to create than video. Video is expensive and takes time to produce. In other words: fill in gaps now, quickly and cheaply, and plan for a good content overhaul in the [medium term](#).

Question 5. How can we support teachers and help them develop their capacity to deliver child-centred distance learning?

Teachers are an essential part of the education system, and they remain essential in a remote learning situation. Teachers normally provide [structure to students, adapt to the different situations and needs of the students, and assess whether learning takes place](#). In a remote teaching setting, teachers cannot fulfil these roles in the usual way.

Naturally, teachers typically lack experience with distance learning tools or other modalities of teaching.

Countries should provide guidance and [support](#) to teachers and set clear expectations. Guidance should include what teachers should do, should not do, and how they can do it. Expectations for teachers, however, need to be realistic and feasible in light of the situation. It is important to accept that learning is less effective than in a classroom setting. It is important to note that teachers who have never worked in an online environment or used any remote learning tools need time to get used to these new tools. Unrealistic expectations and inadequate guidance may impact teacher motivation and lead to frustration, which, in turn, affects their students.

There are a number of things teachers can do to support students during the COVID-19 crisis. First, even in the current crisis, teachers can structure the teaching and learning of their students. Students need to know the focus for the teaching sessions and how to engage with the topics. Teachers simply checking in with students can motivate students and provide reassurance to parents. Second, teachers should — as usual — adapt their teaching approach to student needs. Students struggling with teaching content may be able to get extra support. Third, teachers might be able to assess to what extent learning is taking place. If teachers manage to check in with students via phone or SMS, they can also discuss results of practice exercises. However, it is unrealistic to expect teachers to create new educational content from scratch, or for teaching and learning to 'continue as normal'.

In terms of supporting teachers, [peer networks of teachers](#) are an important way to discuss issues of practice. Peer networks and groups can utilise messaging platforms such as WhatsApp, Skype, Telegram and others. Making such teacher peer groups effective includes considerations such as the number of members needed in order to have critical mass, or having a senior, experienced teacher who is comfortable with remote teaching as a default go-to person.

Finally, teachers may be able to support parents to understand daily plans, and, where possible, call on parents to help facilitate lessons. Like teachers, unrealistic expectations of parents, who are unfamiliar with the content of learning materials, or have employment commitments, may result in their feeling frustrated and unable to help their children.

Question 6. How can we hold teachers accountable during this period?

While policy-makers understandably have concerns about teachers remaining engaged in their work from home, there is a risk in implementing accountability mechanisms. Teachers have seen their workload increase during the COVID-19 crisis. On top of that, many teachers are at home with their own children. Since women are overrepresented in the teaching profession, they are more likely to have to care for their children in addition to their work. Adding accountability mechanisms for teachers' work while schools are closed carries the risk of increasing the burden on teachers. It may create unrealistic expectations and threaten teacher morale. Any accountability mechanisms introduced should be complemented by adequate support for teachers to ensure they can achieve the expectations set for them.

Peer support may function as an effective, indirect accountability mechanism. With peers or the principal frequently checking in, teachers are more likely to remain motivated and seek suggestions or support on how to tackle problems. Teachers are then likely to feel heard and supported, and colleagues and school administrators will be aware of what teachers are doing.

Question 7. How can we help illiterate or low-literacy parents support their children's learning other than with actual schoolwork?

Caregivers are not teachers, and should not be treated as such. But parents and caregivers can help their children develop academic and other skills as part of daily routines. When parents cannot take time off for their children, activities embedded in daily routines can be highly effective. These activities can also provide great contextualised learning and can be more engaging to both parent and child than formal schoolwork. For these activities, a parent's imagination is the limit!

For maths, parents can engage with a child of any age group. In the shop, small children can count coins, older children can calculate change or make a budget for shopping. Activities supporting literacy can range from identifying letters on signage or household items, to reading a recipe and making the dish, to keeping a diary. Schools may also provide specific instructions or activities for parents to support literacy. Categorising types of rubbish outside, discussing ways of disposing of them, and composting kitchen materials can all be part of science activities. At home, parents can support learning across multiple 'subjects'. For example, a combined activity may include creating a budget for ingredients needed for a dish, buying them, understanding how yeast works, cooking a dish, and disposing of food waste responsibly. The possibilities are endless.

Question 8. How can assessment be best undertaken when delivering distance education? Can you provide guidance on ideas / tools / methods to undertake formative and summative assessment remotely?

There are two main types of assessment: formative and summative assessment. Their purposes are different, as are the ways they can be implemented.

Formative assessment aims to identify students' current competency levels and gaps in their learning and whether students need remedial support. By definition, a student cannot fail a formative assessment, and a formative assessment should not be used to judge a student. A summative assessment is an official 'test': it measures whether a student has learnt what they are supposed to have learnt. If they pass, they move forward to the next skill, subject or year. If they fail, they have to do the skill, subject or year again. These two assessment types require different implementation approaches.

Formative assessment gives teachers the most freedom to experiment and [allows for many formats](#). In distance learning, knowledge checks can be performed through SMS, individual or conference calls, or with a plethora of [online tools](#). The advantage of formative or ongoing assessment is that teachers can correct misunderstandings as they arise, while students are still engaging with the content. However, teachers and students need to schedule a time to talk on the phone or online. Apart from getting feedback from their own teachers, students might access “Homework Hotlines” to receive feedback on study questions and exercises.

[Countries take different approaches](#) to summative assessment. Some countries, like Austria, have suspended formal assessments until school restarts. Other countries have adjusted or are adjusting their laws to allow for remote assessment. There are countries that work with the technology they have, such as mailing or emailing material to schools or teachers. Finally, some countries base their student assessment on the work and assessments students have done in class.

No solution is perfect, and each has advantages and pitfalls. Not having assessments may mean that all students pass, risking devaluing their diplomas in the eyes of future employers. Having assessments in an unsupervised setting risks plagiarism and fraud. Basing a final assessment on formative assessments risks turning formative assessments into summative assessments, which threatens the learning effect and objective of a formative test.

Question 9. Many parents and teachers are not aware of many of the resources available to them to support distance learning. How can we help make these groups more aware of the tools at their disposal?

Teachers require curriculum-aligned material, appropriate for the context and the audience. Curating and vetting content is a labour-intensive and specialised task. Schools, institutions and governments have a role in curating and sharing content. In terms of tools, again, the toolset at the disposal of teachers depends on the context and what is generally used. The available tools, with pros and cons and contexts of usage, can be shared through formal channels or peer networks. Television and radio can play a role on a national scale, but community organisations often have their own means of communication. For example, some communities use loudspeaker announcements!

Parents and caregivers need to be familiar with the tools used by the teacher. They can use extra tools and content outside the ones used by the school. Parents are often well served by a peer in the community, who can show how a tool works. Older children in the family can instruct younger siblings, or children in the neighbourhood can assist.

Finally, formally assigning an interested and capable child in the neighbourhood as the local 'IT Specialist', for example, can have a number of benefits. Schools in Singapore and Pakistan sometimes work with such students in their classes. Parents can be reluctant to ask for help since a failure to use tools effectively may carry a risk of losing face. By assigning the role to a younger person, the parent doesn't risk losing face, and it also provides an opportunity for young members of the community to take on leadership roles.

Question 10. In a setting where parents have little income, children may be asked to help earn additional income. How do we minimise this risk?

The COVID-19 crisis is more than an educational crisis. With an economic crisis looming as a result of government lockdowns, many families have less money to spend while costs for basic necessities like food are expected to rise. In this setting, we recognise that families are more likely to feel compelled to bring their children into revenue-generating activities. A campaign to prevent a new normal from taking hold is more effective than changing behaviours once children have been pushed into work. If

there is a risk of children ending up working to provide income instead of studying, the moment to act is now.

[Effective campaigns](#) on changing or reinforcing behaviour typically have three components: building knowledge (inform), changing attitudes (use emotional arguments) and modelling behaviour (provide an example). Factual arguments can be disseminated by traditional media (radio, TV, newspapers), but knowledge and awareness are not enough. Working with model families in daily serial dramas (telenovelas or soap operas) grappling with and overcoming issues helps the affective and behavioural element. Parents on TV can provide a model on how to create a learning environment and routine for their children. A mix of media formats may be more effective, and, for example, influencers or national role models can be engaged. Finally, it helps when parents see that their children are busy with school work and not idle. The countries most prone to child labour are likely to have existing resources at their disposal, which can be recycled with greater regularity.

Materials available from the EdTech Hub

The following materials developed by the EdTech are available to support governments as they design and implement their response to COVID-19.

1. *New analysis by the Hub and our partners to inform your coronavirus (COVID-19) response.* <https://edtechhub.org/coronavirus/resources-and-tools/>
2. *Resources from other organisations to support your coronavirus (COVID-19) education response.* <https://edtechhub.org/coronavirus/resources-from-other-organisations/>
3. *Education during the COVID-19 crisis: Opportunities and constraints of using EdTech in low-income countries.* <https://edtechhub.org/coronavirus/edtech-low-income-countries/>
4. *Technical note on the use of virtual learning environments during the COVID-19 pandemic.* EdTech Hub.
5. *The role of interactive radio instruction in the coronavirus (COVID-19) education response.* <https://edtechhub.org/2020/04/23/the-role-of-interactive-radio-instruction-in-the-coronavirus-covid-19-education-response/>
6. *Continue or reboot? Overarching options for education responses to coronavirus (COVID-19) in low- and middle-income countries.* EdTechHub. <https://edtechhub.org/2020/04/17/continue-or-reboot-overarching-options-for-education-responses-to-coronavirus-covid-19-in-low-and-middle-income-countries/>

References and additional resources

This list of resources is available in [the EdTech Hub evidence library](#).

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Annex 1. Examples of data to collect to inform analysis of which modalities to use to support distance education

Tool 1. Crucial data gathering		
Topic	Questions	Source
Access (by geography / demographic if possible; see Tool 2)	To what extent does the population have access to the internet?	Network providers / operators, Ministries of ICT or governmental telecom regulators
	To what extent are laptops available?	
	To what extent are smartphones available?	
	To what extent are basic phones available?	
	To what extent are radios available?	
	To what extent are TVs available?	
Existing resources	What are existing, dedicated radio or TV channels for education? Which existing channels could governments repurpose for education delivery?	Ministry of Education
	Is there a public learning management system in place? If so, which system(s)?	Ministry of Education
	Are there communication tools in place to reach head teachers, teachers, parents or even students? These might include SMS portals, sending SMS via mobile network operators, Whatsapp groups, contact information databases.	Ministry of Education
	Is there a policy for e-learning / technology use in education already in place?	Ministry of Education
	What learning content do local governmental and non-governmental institutions have that is ready for distribution?	Ministry of Education, Desk Research
Side effects of school	Are there essential non-educational programmes delivered via schools that are at risk (e.g., feeding	Ministry of Education

closure	programmes)?	
	How does school closure impact at-risk communities? (e.g., increases in gender-based violence (GBV), teenage pregnancies, drop-out rates, child labour, students with health risks)	

NB: Sources that users might use to obtain this data include the [GSMA website](#), the [International Telecommunications Union website](#) and the [World Bank's education data repository](#),