

# Putting the ‘learning’ back in remote learning

Policies to uphold effective continuity of learning through COVID-19

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## Synopsis

Fifty-three percent of 10-year-olds in developing countries cannot read and understand a simple story. School closures during COVID-19 hence risk further exacerbating this learning crisis. To ensure continuity of learning, countries have deployed remote learning programmes, using a mix of technologies. Expanding remote learning opportunities is not the same as learning, defined as the development of relevant knowledge, skills and values. Reviews of the use of edtech, particularly in emergencies, suggest that the ‘supply’ of hardware or educational content, while necessary, are insufficient on their own to deliver learning outcomes. Instead, learning occurs when access to technology is combined with relevant and engaging content, a well-articulated instructional model, effective teaching presence, learner support, and an enabling learning environment. Based on a rapid review of past and present continuity of learning practices, we identify **six areas where remote learning programmes risk falling short in enabling learning:**

1. While efforts are being made to align remote learning content with the curricula, gaps remain related to coverage and quality — in particular, presentation and structuring of content to guide daily learning; coherence of different learning resources and activities; coverage and instructional design of non-academic themes and transferable skills in remote learning programmes, etc.
2. Students learn not by passively consuming content but through active engagement and scaffolded support. We find that remote learning does not always pay enough attention to instructional pace; pathways for student practice; checks for understanding and feedback loops to support home learning. Effective programmes build component skills; integrate them through practice; develop know-how on when to apply them; and couple practice with timely and meaningful feedback.
3. Non-supply factors are a critical barrier to learner participation. Inequities in access to technology (in terms of connectivity, affordability, reliability, quality) is a key factor. Other factors are instructional time, language, competing household or work responsibilities of learners, and their motivation.
4. Educator roles are critical in remote learning but risk being inadequately supported. Two-thirds of teachers feel they do not have the skills (technological or pedagogical) to design and facilitate distance learning. Most countries have issued written guidance for teachers; however, less than 30 per cent are combining teacher guidance and training. More focus is placed on ICT-related training compared to remote training and support for pedagogy, formative assessment, and learner engagement.

5. Remote learning imposes new and additional demands on parents/caregivers. Eighty per cent of parents/caregivers are not ready to manage home-based learning. Key barriers are resource constraints, education, language, household and work obligations, etc. Successful programmes with a parental engagement component tend to involve structured parental support but this is less common during COVID, with more emphasis on giving written guidance and resource packs.
6. Children need a home environment that is safe and conducive to learning. However, many children lack adequate study spaces — in Thailand, Philippines and Indonesia, 30 per cent of 15-year-old students do not have a quiet place to study at home. Children are also at higher risk of maltreatment at home during pandemics, with nearly 80 per cent of under 14-year-olds subjected to psychological aggression or physical punishment at home by caregivers during COVID.

## Key takeaways and recommendations

Implementing quality remote learning programmes quickly and at scale is hard, and it is understandable why countries, especially those with weak systems readiness, have focused more on content delivery than on user engagement and quality outcomes. However, the supply of content on its own is not enough to produce learning outcomes. Notwithstanding the efforts made to implement remote learning quickly, based on the current implementation context, this is unlikely to compensate for lost learning, except for specific learners or in specific contexts. To ensure remote learning strategies deliver learning for all during and after school closures, we call on policymakers to pursue the following four priorities:

1. **Bridge the access gap for marginalized learners.** Access to remote learning can be expanded via for example [multimodal delivery](#), zero-rating access to e-learning sites, and providing devices. However, ambitious solutions are needed for the future to enable access to learning opportunities for every child — anywhere, anytime. The Learning Unlimited initiative by UNICEF, Generation Unlimited and its partners aims to connect 500 million learners to the internet and high-quality digital learning solutions by 2021.
2. **Ensure remote learning programmes center around learning as a goal.** Ensuring equitable access to technology and remote learning content is very critical, but it is only the starting point. Effective continuity of learning requires a holistic approach, which positions learning — the development of useful knowledge, skills and values — as the anchor for coherent programme design. This includes:
  - articulating clear, relevant and realistic continuity of learning objectives, even if they are simplified and scaled back, to give focus to the design and alignment of different programme elements;
  - reinforcing structured pedagogy, formative assessments and learner support in remote learning programmes through structured and cohesive daily learning plans; remote training and coaching to educators; homework hotlines or community tutors; [training and support to parents](#), etc.;
  - integrating non-academic learning and transferable skills development in remote learning curricula;
  - encouraging user engagement — for example via nudges and media campaigns.
3. **Forward plan for recovery of lost learning after school re-opening.** The reopening phase will be critical for learning recovery, and the [Framework for Reopening of Schools](#) provides key recommendations to this effect. As before, the design of learning recovery programmes should be driven by clear and realistic learning goals, and reflect the different components of effective learning. The recovery phase is an opportunity to improve learning trajectories, and programming for recovery should be leveraged to ‘opening up better schools’. Given the expected squeeze on national budgets, forward planning must consider costing of alternative programming scenarios and financing analysis to inform decision-making.
4. **Monitor learning behaviours and outcomes.** The ultimate impact of today’s school closures on children’s learning could be significant. Monitoring learning behaviours and outcomes is key to inform education policy and to course correct over time. Progress can be monitored by using mobile phone surveys, tracking usage and performance statistics from learning platforms and apps, implementing rapid learning assessments to identify learning gaps, etc.

## 1. Why effective continuity of learning matters?

More than 1.57 billion students in over 190 countries have been affected by school closures due to COVID-19.<sup>1</sup> School closures have many adverse consequences, including learning disruptions. Given 53 per cent of 10-year-olds in developing countries cannot read and understand a simple story, these disruptions may worsen the learning crisis. In [Pakistan](#), four years after an earthquake closed schools for fourteen weeks, children in earthquake-affected areas had enrollment and grade attainment rates similar to children in unaffected areas, but had accumulated learning losses (test score gap) equivalent to 1.5 fewer years of schooling. If these deficits persist, the affected children could lose 15 per cent of their lifetime earnings. To ensure continuity of learning, most countries have deployed remote learning programmes using a mix of education technologies (figure 1).

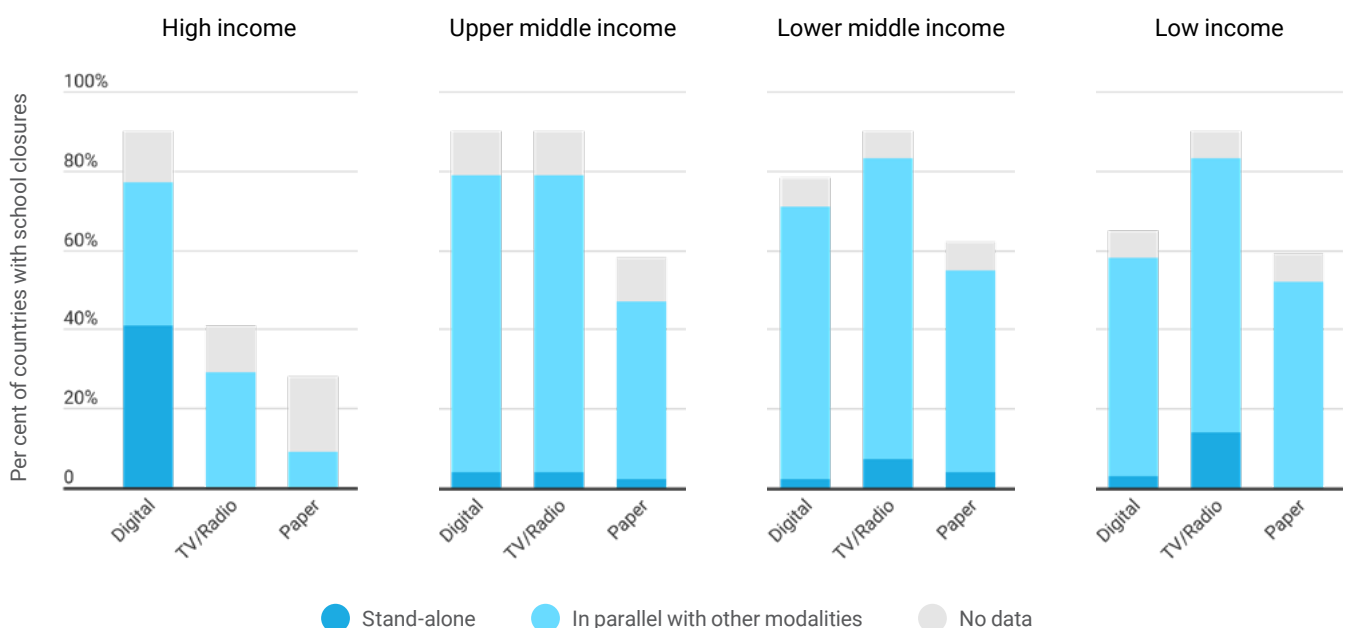
Expanding remote learning opportunities is not the same as learning, i.e. the development of useful knowledge, skills, and values.<sup>2</sup> There is scant evidence of impacts on learning outcomes of remote learning programmes in past pandemics.<sup>3</sup> An evidence [review](#) of education technology (edtech) focusing on developed countries finds that online-only courses lower student academic achievement compared to in-person courses. In the United States, virtual schools have been shown to underperform compared to regular face-to-face schools.<sup>4</sup> Meanwhile, the evidence on use of edtech — particularly in the context of emergencies — suggests that the mere

‘supply’ of hardware or educational content does not guarantee learning, and success depends on contextual, design and implementation factors.<sup>5</sup> Even the evidence from traditional classroom contexts supports the view that expanded access to learning opportunities or inputs do not necessarily lead on their own to learning outcomes. For instance, in Kenya, neither providing textbooks nor instructional flip charts increased test scores.<sup>6</sup> Instead, the provision of instructional materials is most effective when combined with teacher training and the use of a well-articulated instructional model.<sup>7</sup>

Take the example of Sierra Leone’s Emergency Radio Education Programme (EREP). While EREP allowed students to maintain a link to their education during Ebola, it was deemed a poor substitute for schools: learner engagement was inconsistent and perceived impacts on learning were limited, such that losses in learning still had to be compensated once school reopened.<sup>8</sup> In China, many teachers holding web classes during the COVID-19 lockdown planned to go over the same material once schools reopened.<sup>9</sup> Even in the United States, the gaps in learner engagement are leading to widespread concern, with talk of a potential need for summer sessions, an early start in the fall, or perhaps having students repeat a grade.<sup>10</sup>

This issue brief unpacks what is effective continuity of learning and its key components. It also draws on existing evidence and information to examine the effectiveness of remote learning practices for ensuring continuity of learning, and concludes with some recommendations.

FIGURE 1: REMOTE LEARNING MODALITIES BY COUNTRY INCOME



Source: UNICEF survey, Center for Global Development (CGD) [database](#) on school closures. Note: Estimates are based on data on 129 low- and middle-income countries from a UNICEF survey of education experts in UNICEF country offices and supplemented with data on 75 high-income countries from the the CGD database.

## 2. Unpacking effective continuity of learning

### What is effective continuity of learning?

For the purpose of this brief, different definitions of learning<sup>11</sup> have been adapted to holistically define effective continuity of learning during extended school closures as:

- continuation of the **learning process** (i.e. the process of developing knowledge, skills and attitudes, which involves, for example, attention; memorizing; writing; language and numerical processing; understanding, connecting, analyzing and evaluating information; solving problems, etc.)
- which leads to change in **learning outcomes** (i.e. achieving specific learning goals)
- and occurs as a result of **learning experiences** (i.e. the social, emotional, intellectual, and physical aspects of the learning environment that shape learner engagement).

### What are the dimensions of effective continuity of learning?

Based on research on the drivers of learning, particularly on the use of edtech in emergency and fragile settings, section two unpacks key components of effective learning applicable to school closures

(figure 2).<sup>12</sup> These components of effective learning are universal, i.e. they apply to face-to-face and remote learning contexts, whether remote learning is delivered online or offline, or whether learners are based in high- or low-income countries. The differences arise in how these components are designed and implemented, based on contextual factors.

**Continuity of learning objective:** At the core of effective learning should be the continuity of learning objective. In the context of school closures, the purposes of remote learning interventions could be to:

- **engage** learners in fun and enriching learning activities to maintain a link to their education and minimize attenuation of core skills (e.g. literacy, numeracy, creativity, resilience, problem-solving), or
- **reinforce** and deepen mastery of content and skills that learners have been exposed to, or
- **enable** children to progress with (i.e. continue to follow) the school curriculum and attain the required level of learning achievement as they would if they were in school daily.

These learning objectives fall on a continuum in terms of ambition and complexity, and progressively build on each other (figure 3). They can also vary by subject, age/grade, and length of school closure.<sup>13</sup>

FIGURE 2: CONTINUITY OF LEARNING DIMENSIONS

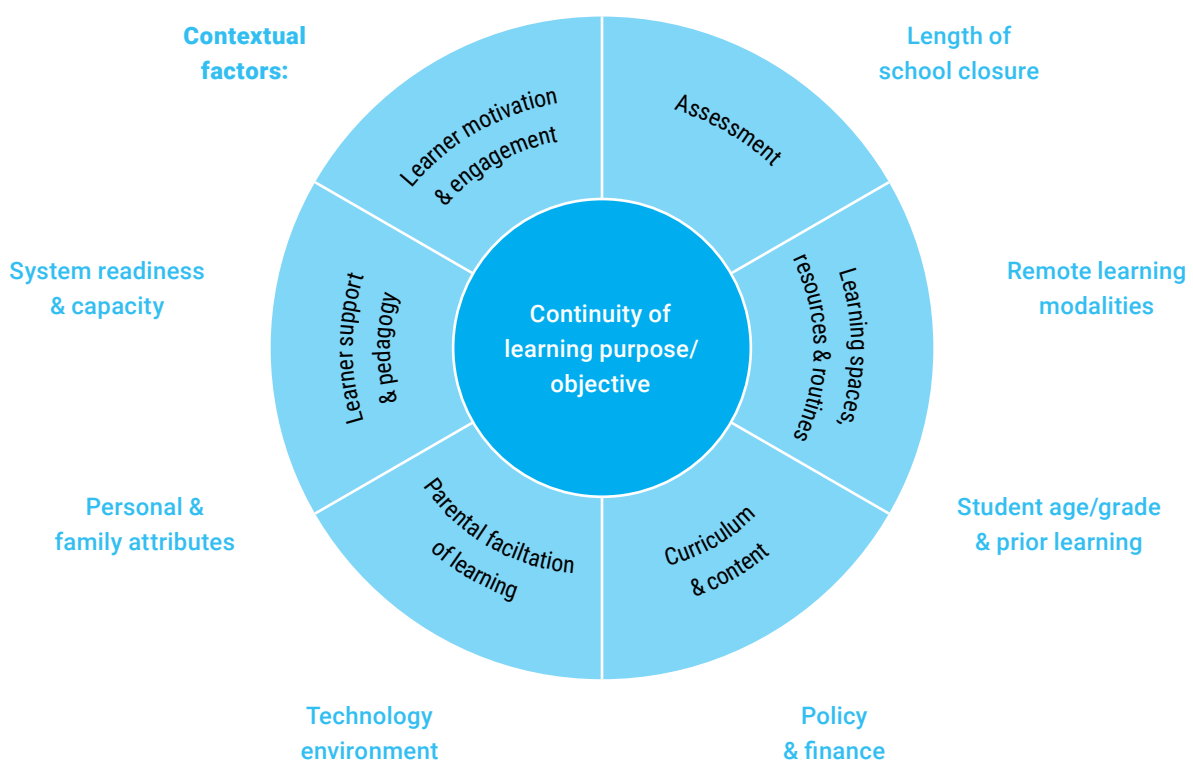
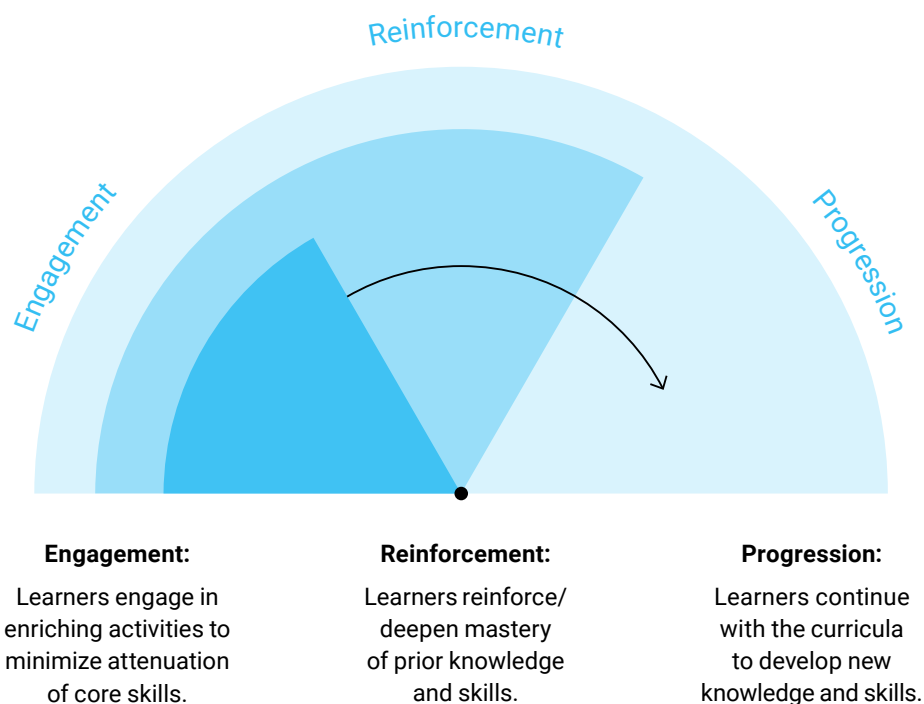


FIGURE 3: CONTINUITY OF LEARNING OBJECTIVES



Source: Authors

Anchored to the continuity of learning objective are six core elements of effective learning:

- **Curriculum and content** — refers to age/grade-appropriateness of content, its contextual relevance, coverage of academic and non-academic topics and skills (foundational, transferable, job-specific, etc.), as well as the pace, scope, sequence, and types of learning content.
- **Pedagogy and learner support** — refers to instructional delivery methods (e.g. teacher- and/or self-directed), learner support strategies (e.g. modeling, check for understanding, give feedback, other scaffolding techniques, etc.), and educators' motivation and ability to perform this role.
- **Assessment** — refers to the scope of assessments for home learning, including types of assessments, their frequency, and decisions about grading and recognition of home learning.
- **Learner motivation and engagement** — refers to learner motivation, and the intensity, persistence, quality of learner participation in learning tasks and interactions with peers, teachers, and parents.
- **Parental facilitation** — refers to the scope (academic and emotional) and level (e.g. teach, coor-

dinate, help, monitor) of parental/caregiver support for learning, and their motivation and ability to do so.

- **Learning spaces, resources and routines** — refers to learners' access to learning materials, having structured schedules and organized, calm and safe spaces for home learning.

The design and implementation of effective learning components during school closures differ based on continuity of learning objective(s) pursued (table 1). For instance, the content for the purposes of engagement is typically informal and a mix of structured and unstructured learning tasks but where progression needs to be maintained, it is highly structured and aligned to the specific national curriculum. Achieving progression as a learning goal is the most complex — it requires more intensive and coordinated effort and investments across different components, and high levels of system capacity and readiness to be implemented rapidly and at scale.<sup>14</sup> Conversely, countries with limited capacity and nascent systems of alternative education delivery will find it much more difficult to implement progression as a learning goal instead of engagement or reinforcement which entails less complex implementation arrangements.

TABLE 1: LINK BETWEEN CONTINUITY OF LEARNING OBJECTIVES AND LEARNING DIMENSIONS

	ENGAGEMENT	REINFORCEMENT	PROGRESSION
CURRICULUM AND CONTENT	Age/level appropriate; typically informal, mix of structured and unstructured lessons; aim is to retain and support core skills, not curriculum coverage	Grade-appropriate; structured and curriculum-aligned lessons (scope); reinforces prior learning and adds few new, easily connected topics	Grade-appropriate; highly structured and curriculum-aligned lessons (scope and sequence); mainly new content
ASSESSMENT	At most, some follow-up activities; usually no review by teacher; no formal recognition of learning	Some type of formative assessments and reviews by teacher; may or may not be formally recognized	Regular assessment and grading procedures with modifications; learning is formally recognized
PEDAGOGY	Low teacher interaction and support; typically self-paced and/or self-directed	Medium teacher interaction and support; mix of teacher- and self-directed learning	High level of teacher interaction and support; mostly teacher-directed learning
LEARNER ENGAGEMENT	Fewer study hours but high intrinsic motivation needed	Medium study hours; high self-regulation and intrinsic motivation	Long study hours; high extrinsic motivation and self-regulation
PARENTAL FACILITATION	High level of teaching support and coordination of learning tasks	Medium to low teaching support if there is regular teacher mediation	Less teaching support if high level of teacher mediation

Source: Authors

Further, the design and implementation of the effective learning components also depend on **contextual factors**, for example, [access to technology](#); [systems readiness](#); learners' family background and [special learning needs](#). For instance, radio and TV programmes do not offer many opportunities for student practice and feedback. Hence, in countries where radio and TV are the main remote learning modalities, they would need to be supplemented with other modalities (e.g. printed workbooks; homework hotlines; regular interaction with educators via SMS, phone, WhatsApp). To give another example, in contexts where adult literacy rates are low and parents are not equipped to support home learning, written guidance to parents may not suffice. Instead, the curriculum can be simplified and learning goals kept modest; parental outreach and support can occur through aural or visual communications channels; and/or community-based volunteer tutors can be mobilized to provide more hands-on support. Over the long run, sustained investments to improve these underlying factors — e.g. reinforcing technology infrastructure, developing enabling policies, strengthening systems for alternative education delivery — can help expand the scope and quality of feasible design and implementation choices to achieve effective continuity of learning.

### 3. How successful are current remote learning programmes in delivering on continuity of learning dimensions – a review of emerging practices and gaps

In this section, we draw observations on current continuity of learning practices (implemented in the first 6-8 weeks of ongoing school closures) and the historical experience of remote learning set against the learning dimensions identified in section two. In doing so, we highlight examples of how different countries have operationalized these learning dimensions during school closures, and identify related gaps.

#### Curriculum and content

**The alignment of remote learning content with the curriculum is getting increased attention, but there appears to be significant variations in the coverage and quality of content.** Successful ed-tech programmes are more likely to be implemented in line with the local curriculum;<sup>15</sup> meanwhile, merely sharing learning resources with teachers and parents that are not curriculum-aligned can be overwhelming for intended users and constrain uptake.<sup>16</sup> A number of countries have national learning platforms and/or pre-existing content that is

curriculum-aligned (e.g. [India](#), [Indonesia](#)), while some other countries (e.g. [Peru](#)) are curating additional content that aligns with all of the curricula. However, cross-country variations in content are observed, especially in terms of coverage across grades<sup>17</sup> and subjects,<sup>18</sup> length,<sup>19</sup> degree of curation<sup>20</sup> and adaptation,<sup>21</sup> and type of content (e.g. textbooks vs lesson recordings vs activities and assignments vs assessments),<sup>22</sup> among others.

**Non-academic learning and development of transferable skills may be neglected in remote learning programmes.** Education systems have other goals beyond academic learning – they seek to endow students with civic values and citizenship skills, encourage entrepreneurial spirit, and promote social cohesion.<sup>23</sup> Non-academic themes such as citizenship and peace education, arts and music, sports for development, financial literacy, health and environmental education can also build knowledge and skills that will help children overcome the effects of the lockdown. In the 21st century, students also need [transferable skills](#) (e.g. critical thinking, creativity, communication, a growth mindset) which can be developed through their purposeful integration in academic and (aforementioned) non-academic courses, and via co- and extra-curricular activities. While several countries have incorporated non-academic content in their remote learning curriculum (e.g. [Kenya](#), [Morocco](#), [Liberia](#), [Argentina](#), [Macedonia](#), [Jordan](#), [Brazil Amazonas](#)), there is cross-country variation in the topical focus,<sup>24</sup> presentation and structure,<sup>25</sup> time allocation,<sup>26</sup> target age/grade,<sup>27</sup> and pedagogies.<sup>28</sup> With some exceptions,<sup>29</sup> remote instruction for non-academic subjects in developing countries tends to be unidirectional or passive with a focus on imparting content knowledge rather than active learning, (guided) practice and reflection to purposefully build associated skills and know-how on how to apply them. Further, our search did not yield many examples of explicit and systematic integration of transferable skills development in academic (subject-specific) lessons,<sup>30</sup> but this appears more visible in integrated lessons.<sup>31</sup> Socio-emotional skills in particular can also be developed [outside](#) the confines of 'learning hours'; while many countries have provided guidance for parents on psychosocial support for children, these can benefit from more [purposeful](#) integration of socio-emotional learning (SEL) strategies (e.g. SEL lessons from the [Lansing](#) school district for parents with children in grades K-3, 4-6, and 7-12). The reduction in learning hours, competition with academic subjects for limited student attention or airtime, gaps in availability of learning resources, pedagogical requirements, and lack of teacher and parental ability to facilitate this learn-

ing at home, are some possible constraints. Except for psychosocial support,<sup>32</sup> non-academic learning and transferable skills development is also at risk of being ignored during school reopening due to tight timeframes to catch up on lost learning.

**Systematic efforts to develop well-structured plans/routines for day-to-day learning appear to get lesser attention.** Providing educational resources is not sufficient if they are not structured to guide children's day-to-day learning.<sup>33</sup> Based on the literature, well-structured learning plans mention explicit learning objectives, and related resources and tasks. They also pay attention to appropriate engagement strategies, pace and progression of learning within and across lessons, modeling and worked examples, the different pathways for student practice, and checks for understanding.<sup>34</sup> Available data yields fewer examples of at-scale efforts to develop cohesive learning plans or schedules that connect and/or combine on-platform and off-platform learning tasks to give direction and structure to children's day-to-day learning (e.g. [Ludington area schools](#), [Fresno unified school district](#)). In several cases, individual lessons delivered through a single medium or platform (e.g. radio/TV lessons) have sound internal structures, but lack coherence with lessons, resources and activities on another medium (sometimes even for the same day and grade).<sup>35</sup> Notable exceptions are [Argentina](#), [Bhutan](#), among others.

### **Pedagogy and learner support**

**Remote learning strategies do not always pay sufficient attention to how students learn.** Students do not learn by passively consuming content. Instead, edtech programmes that have been successful in fragile contexts are careful to develop component skills, practice integrating them, and build the know-how on when to apply what children have learned.<sup>36</sup> However, these elements are sometimes overlooked during remote learning.<sup>37</sup> Further, research on drivers of (remote) learning shows that practice must be coupled with feedback that explicitly communicates about aspect(s) of students' performance relative to specific learning goals, provides information to help students progress in meeting those criteria based on their needs, and is valid, timely, and constructive.<sup>38</sup> Some countries have employed remote mechanisms for learner support – for example, [Maldives](#) airs a 1-hour live interaction session called 'Subject Forum' and in Jordan, teachers pay home visits to learners in camps. [South Africa](#) has resuscitated its Dial-A-Tutor programme, and [El Salvador](#) has employed a 24-hour hotline which is staffed by five people and six subject-area specialists (compared to a student population of 1.2 million).<sup>39</sup> There are also instances of teachers communicating directly

with parents and learners. A UNICEF survey indicates student-teacher interactions using SMS, social media and mobile phones in 55 per cent of 133 countries. However, these efforts are not always systematic and only some schools and some teachers engage in this practice;<sup>40</sup> even then, the feedback loop on student engagement and submissions is often neglected in the interactions.<sup>41</sup>

**Learners of different ages and education levels learn differently with remote learning.** Younger learners need increased adult/teacher support for learning and do not have the same degree of capacity and self-regulation for independent learning as older learners.<sup>42</sup> For example, in Sierra Leone, the daily number of listeners to the radio education programme was lowest among pre-primary and primary age learners; they were also less likely to do follow-up exercises and to recall the lesson. Experts recommend fewer hours for daily remote learning for younger learners, but this is not always observed.<sup>43</sup> Further, different modalities could be better suited for learners of different ages – for example, research supports the benefits of educational television on learning outcomes for younger children but the evidence is less clear for older learners.<sup>44</sup> With regard to online learning on the other hand many younger learners do not have the necessary level of digital literacy and skills that older learners have, and need parental help.

**The training of educators is an under-served area, with more emphasis on disease- and ICT-related training compared to pedagogical training and support.** Technology is effective for learning when

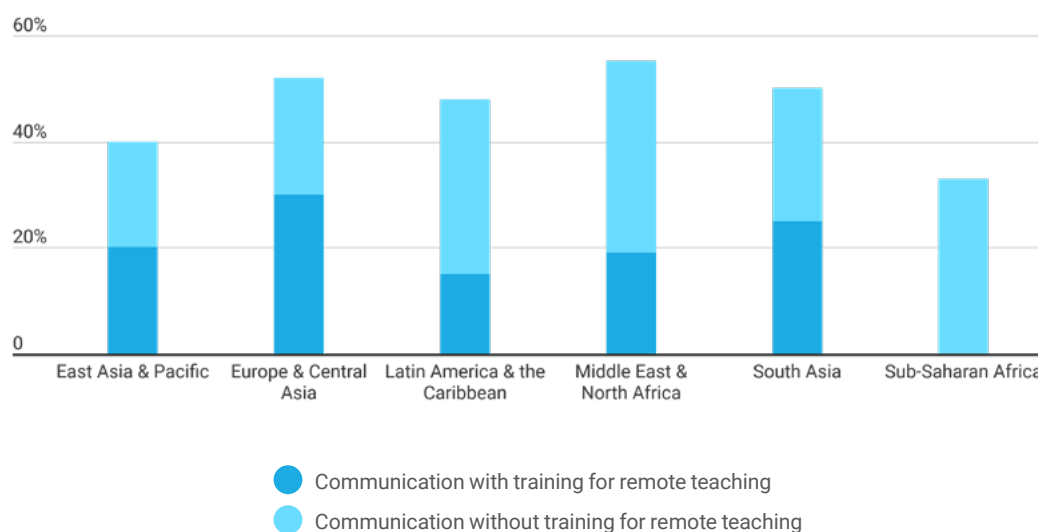
it complements and enables educators, but does not replace them (box 1). Research shows that educators are effective when they are prepared, supported and motivated.<sup>45</sup> Setting clear (and realistic) expectations for student and teacher performance is also important to guide teachers' daily work.<sup>46</sup> Teaching remotely is not the same as teaching in a classroom and requires substantive adjustments for teachers to direct, engage and support children with home learning. According to a UNESCO survey, two-thirds of educators do not have the skills to design and facilitate distance learning. Key barriers educators face include access to technology, household responsibilities including support for their own children's learning, and insufficient skills (pedagogical and/or digital), etc.<sup>47</sup> Not surprisingly, providing professional support and advice to educators was perceived as the second most critical educational priority in a survey of 98 countries.<sup>48</sup> Although there are several models of distance learning available to help improve teaching practices,<sup>49</sup> earlier pandemics provide little evidence of professional development for educators beyond disease-related training.<sup>50</sup> During COVID-19, several countries have issued written guidance for teachers, although few have provided relevant training (figure 4).<sup>51</sup> Where training is available it often appears to concern only ICT matters (Mexico, Malaysia) but not pedagogy. Notable exceptions include Aremnia, Bulgaria and France, among others. In Jamaica, head teachers have been provided with online training related to COVID-19 and leadership, and in Argentina, teachers co-conduct lessons on radio/TV with a journalist, artist, or scientist.

#### BOX 1: THE IMPORTANCE OF TEACHING PRESENCE FOR REMOTE LEARNING SUCCESS

There is a perception that edtech can bypass educators and still produce learning gains yet, the evidence demonstrates that this is not the case. Instead, the role of educators becomes more central.<sup>52</sup> Mindspark, a very successful recent edtech programme, was combined with homework and tutor supervision.<sup>53</sup> Studies of successful education programmes using radio, TV or online platforms also highlight the importance of effective teaching presence for learning achievement. Take the case of interactive radio instruction (IRI), which has a good record of producing learning gains. IRI programmes are rarely implemented without a teacher/facilitator present to guide interaction,<sup>54</sup> and evaluations of successful IRI programmes emphasize the importance of trained teachers/facilitators.<sup>55</sup> In Mexico, a successful TV education programme (Telesecundria) also ascribed a key role to the teacher/facilitator as mediator of content.<sup>56</sup> In online learning too, in the United States teaching presence has been found to be predictive of learner engagement and outcomes,<sup>57</sup> and a study on European virtual schools identified appropriate professional teacher development as a critical success factor.<sup>58</sup> It is hard to believe that mimicking successful models (like the ones mentioned above) without the core features and functionalities that contribute to their success would impact learning outcomes.



**FIGURE 4: SHARE OF COUNTRIES PROVIDING OFFICIAL GUIDANCE AND TRAINING TO TEACHERS FOR REMOTE LEARNING**



Source: Vegas (2020)

### Assessment

**There is insufficient attention to assessing and monitoring children’s learning during school closures.** While many affected countries have made policy decisions regarding high-stakes or summative examinations,<sup>59</sup> available reporting yields fewer examples of education systems with explicit guidance and policies on continuous or formative assessments to measure student learning during school closures ([Lebanon](#), [France](#), [Norway](#), [Mexico](#), [Croatia](#)). Feedback is central to formative assessments. Many countries provide opportunities for students to answer questions and take quizzes as a way to practice and self-assess their learning at home; however, in many instances the important feedback function is lacking.<sup>60</sup> Even at the system level, attention to monitoring children’s learning behaviours and outcomes during disease outbreaks is not widespread.<sup>61</sup> According to a UNICEF survey, whereas 56 per cent of 102 countries reported monitoring the reach of remote learning programmes, only 29 per cent monitored their use and 22 per cent monitored the resulting learning outcomes.<sup>62</sup> The lack of specific learning goals contributes to the issue. With some exceptions (e.g. [Uganda](#)), available reporting suggests that school systems do not always articulate their continuity of learning purpose when establishing their remote learning strategy.<sup>63</sup> If there are no expectations about what students are expected to know or not know, it is difficult to monitor the effectiveness of remote learning.<sup>64</sup>

### Learner motivation and engagement

**Supply of educational content does not necessarily guarantee user take-up and engagement.** During the Ebola crisis in Sierra Leone, there was a significant gap between the share of households that were aware of the radio education programme (over 80 per cent) compared to the share of households where learners listened to the programme at least once a week (50 to 60 per cent). Daily listenership was even lower, with fewer than one in five households with school-aged children listening to the programme every day. Meanwhile, other metrics of learner engagement — such as taking notes or ability to recall something from a previous lesson — fared even worse. It is reported that in the United States more students than ever, particularly in low-income areas, are missing classes during school closure — not logging on, checking in or completing assignments.<sup>65</sup> Recent reports on massive open online courses (MOOCs) also note the very low completion and retention rates, with low student-teacher interaction and content quality being key drivers of low retention.<sup>66</sup>

**Gaps in user uptake and engagement are partly driven by technological access.** The inequities in access to internet are widely documented,<sup>67</sup> and are leading to serious inequities in access to online learning.<sup>68</sup> For instance, a similar share of lower and upper middle-income countries offer online learning despite the internet penetration rates in lower middle-income countries being almost half

of that in upper middle-income countries.<sup>69</sup> While many more people have access to radio and TV than to the internet, this access is not equitably distributed within and across countries.<sup>70</sup> However, according to a UNICEF analysis, 20 countries with less than 50 per cent television ownership are using TV for remote learning.<sup>71</sup> The technological divide is even more serious if we consider the number of devices per household, and the affordability, quality and reliability of service.<sup>72</sup> For example, in several countries, radio/TV programmes for different grades are broadcast simultaneously across different channels.<sup>73</sup> However, in households with multiple learners in different grades, the single radio or TV available in the household can only be used by a single learner at a given time. Some countries have responded to the technological access issues by providing devices (e.g. [Italy](#), [Lithuania](#)) and wi-fi (e.g. [Kenya](#)), zero-rating access to e-learning sites (e.g. [Jamaica](#), [Jordan](#), [Rwanda](#), [South Africa](#)), and preparing printed packages for students with no connectivity (e.g. [Jamaica](#), [Colombia](#)). However, in some contexts the magnitude of the technological divide is too formidable to be overcome by these temporary measures, and groups that are already disadvantaged in their technological access are at high risk of being left behind in their learning.

**However, access to technology is not the only factor behind inconsistent learner take-up and engagement.** In Sierra Leone, the biggest reason for learners not listening to the remote radio education programme was the inconvenient timing of the programme; further, since each recorded lesson aired only at a fixed time, there was no opportunity for asynchronous use. This put students who often have to shoulder household responsibilities, or engage in labour to supplement family income at a disadvantage. The language of instruction is yet another factor: fewer than one in three countries for which data was available had a distance learning curriculum available in multiple languages.<sup>74</sup> Lastly, student motivation is also a contributing factor.<sup>75</sup> Research suggests that students are motivated to learn when they find positive value in a learning goal, have an incentive to perform, and perceive support from their environment.<sup>76</sup>

### Parental facilitation

**Remote learning places additional demands on parents/caregivers and creates significant challenges for them.** Parental engagement is always critical for children's learning<sup>77</sup> but remote learning requires their increased involvement.<sup>78</sup> However, according to a [UNESCO](#) survey, 80 per cent of parents/caregivers are not ready to manage home-based learn-

ing. Even before COVID-19, there were significant variations in parental engagement with learning at home; for example, twice as many children received parental help with homework in Zimbabwe (89 per cent) compared to Madagascar (42 per cent), with household wealth being a key determinant.<sup>79</sup> The scope of parental engagement at home before COVID-19 was also different from what is being expected of them now in the context of school closures. For instance, a study in rural [India](#) showed that for the majority of parents, pre-COVID support for learning involved checking children's notebooks to monitor whether they are doing their homework, with less than one in parents five actually helping children do their homework or occasionally reading or telling them a story. Parental ability to provide support is shaped by parents' own educational attainment, literacy and language skills. Low adult literacy in many developing countries makes this a challenge in these contexts.<sup>80</sup> Work obligations, household and care responsibilities pose yet another constraint. Parental misperceptions about their child's learning can also be a further barrier to providing appropriate support for home-based learning. A study in rural [India](#) for example showed significant misalignment between parents' perception of their child's learning and their child's actual learning outcomes. In [Kenya](#) and [Uganda](#) too, there was a huge gap between parental perception of education quality and children's learning outcomes. Nearly all countries have called on parents to support home-based learning during ongoing school closures, and at least 60 countries are providing guides for parents,<sup>81</sup> while some have also provided resource materials (e.g. [Serbia](#), [China](#)). [Jamaica](#) has set up psychosocial support helplines for parents, and the [Kyrgyz Republic](#) has launched a 'Reading Family' campaign to encourage parents to read to their children. Although successful programmes with a parental engagement component are more likely to feature structured training and support for parents,<sup>82</sup> there are scant examples of systematic training efforts using remote technologies to prepare parents for home-based learning (e.g. [Jamaica](#), [Italy](#), [Macedonia](#)).

### Learning spaces and resources

**A positive home environment is necessary for students to engage and benefit from home learning, but many students live in households where their home environment is not conducive for learning.** As mentioned above, inequities in access to learning resources and technologies at home is a barrier to home learning. Further, many children do not have adequate physical spaces at home where they can engage in learning free from distractions. House-

hold surveys in Bangladesh, Democratic Republic of Congo, India, Kenya, Philippines, Tanzania and Uganda show that the average number of rooms per home is between 1.7 and 2.1 yet the average household size is between 4.0 and 5.4 individuals.<sup>83</sup> Based on the Programme for International Student Assessment (PISA) survey, in OECD countries, nearly 10 per cent of 15-year-old students do not have a quiet place to study at home; in Indonesia, Philippines and Thailand, this figure is over 30 per cent.<sup>84</sup> For learners from low-income households, the lack of quiet learning spaces at home is even more serious. Children also need a safe and emotionally healthy home environment to learn. Social isolation and economic uncertainty are known to create anxiety and stress in households, with mothers being more impacted.<sup>85</sup> The evidence on violence against women and children during pandemics also suggests that children are at greater risk of harm and maltreatment at home during COVID-19.<sup>86</sup> According to [UNICEF](#), nearly 80 per cent of under 14-year-olds were subjected to some form of psychological aggression and/or physical punishment by caregivers in the past month.

#### **School re-opening and learning recovery**

**Remote learning is not likely to compensate fully for learning losses, and the burden for catching up falls disproportionately on the school reopening phase.** Except for specific contexts and specific groups of learners — e.g. high-performing, motivated and affluent learners; high-performing schools; learners and schools with prior experience with remote teaching and learning; countries with established alternative delivery systems to school based instruction,<sup>87</sup> remote learning is not an effective substitute for regular classroom instruction. For those transitioning to remote learning for the first time, it may even lead to a decline vis-à-vis baseline learning outcomes.<sup>88</sup> Students in low-income countries and those in sub-Saharan Africa are likely to be the most affected, as well as learners from low-income families.<sup>89</sup> The school reopening phase will hence be critical for catching up on lost learning. In Sierra Leone, once schools reopened, six terms were compressed into four to accelerate learning without losing a year. Research also shows that one way to help students catch up is to add extra instructional time outside school hours or extend the school year.<sup>90</sup> Another significant challenge is to ensure that all students return to school. In particular, girls and low-income students are at high risk of dropping out.<sup>91</sup>

## **4. Four priorities for effective continuity of learning**

While remote learning interventions during pandemics have some elements promoting learning as an objective, they are mainly coherent as approaches around education supply. Implementing quality remote learning programmes rapidly and at scale is hard, and it is understandable for countries, especially those with limited experience and nascent systems and capacities for alternative education delivery before COVID, to have focused on content delivery than user engagement and quality. However, the supply of content on its own is not enough to produce learning outcomes. Notwithstanding the significant efforts made to quickly implement remote learning, based on the current implementation context, this is unlikely to compensate for lost learning, except for specific groups of learners or in specific contexts. To ensure remote learning strategies deliver learning for all during and after school closures, we call on policymakers to pursue the following four priorities:

- 1. Bridge the access gap, especially for marginalized learners.** Access to remote learning opportunities can be expanded via for example [multi-modal delivery](#), zero-rating access to existing education platforms, and the provision of devices and wi-fi access, among others. However, it is important to think beyond short-term stop-gap measures. In the 190+ countries where schools have closed, intermittent school closures may continue until 2022-2023. Even when schools reopen, the imperative to uphold social distancing will likely require blended learning approaches. This calls for ambitious solutions over the medium- and long-term which support every child and young person to access learning — anywhere, anytime. For instance, by 2021, the Learning Unlimited initiative by UNICEF, Generation Unlimited and its partners aims to connect 500 million learners in 106 countries to the internet as well as high-quality IT-enabled learning solutions which meet every learner's unique learning needs and context.
- 2. Ensure remote learning programmes during and after school closures are centered around learning as a goal.** While ensuring equitable access to remote learning content and associated technology platforms is critical, it is only the first step. Effective continuity of learning requires a more holistic approach. Such an approach positions learning — i.e. the development of useful knowledge, skills and values — as the goal of

the remote learning programme, and forms the basis for smart planning, coherent programme design, and alignment of resources and actors. This includes:

- **Articulating clear, relevant and realistic continuity of learning objectives** to give focus to the design and alignment of different programme components, including content production and/or adaptation. For education administrations with weak systems readiness and capacity to implement remote learning programmes quickly, learning goals can be more tightly focused, simplified and scaled back.
- **Reinforcing structured pedagogy, learner support and feedback in remote learning programmes**, for example through establishing structured, appropriately paced and sequenced, coherent and cohesive (daily) learning plans and routines; providing an appropriate package of teacher incentives, resources and support (e.g. remote training, coaching and peer support; free SIMs, phone credit or data) to implement good pedagogies, provide formative assessments, and give scaffolded instructional support to learners in the context of remote learning; boosting 'homework hotlines' or 'community-based volunteer tutor' options for added learner support; and giving [training and support to parents/caregivers for home learning](#).
- **Integrating non-academic learning transferable skills development in a purposeful way in remote learning curricula**, in particular, moving from passive to active approaches that also give learners opportunities for practice, reflection, peer-to-peer learning and collaboration, and contextualizing its application to real-world problems.
- **Encouraging user engagement**, for example via 'nudges' and media campaigns.
- **Addressing equity issues** not only for access to technology and content but also in the design of other components of effective learning.

**3. Forward plan for recovery of lost learning after school reopening.** Given remote learning is not likely to compensate for lost learning, the reopening phase is critical. The [Framework for Reopening of Schools](#) provides key recommendations to inform planning for learning recovery, including remedial learning, blended learning, fee waivers, among others. To be effective, the design of learning recovery programmes should be coherent around learning as a goal and incorporate the components of effective learning in this brief. Post-Ebola programming also suggests that the reopening phase can be an opportunity to 'opening up better schools'. Hence, forward-looking plans should be leveraged to improve (not just smooth) learning trajectories. Given the expected [squeeze](#) in education budgets following a global recession, forward planning for learning recovery and/or acceleration should include costing of alternative programming scenarios and financing analysis to understand the strategic trade-offs, and inform prioritization, resource allocation and mobilization decisions.

**4. Monitor learning behaviours and outcomes.** The ultimate impact of today's school closures on children's learning could be significant despite the best efforts of policymakers to mitigate disruptive effects. Monitoring learning behaviours and outcomes is key to inform education policy during these extraordinary times and to course correct over time. Progress can be monitored by for example using high-frequency mobile phone surveys and robo surveys; tracking usage and performance statistics from learning platforms and apps; and implementing rapid learning assessments to identify learning gaps. In addition, [UNICEF](#) recommends an increased focus on implementation and operational research with practical applications for improving teacher training, content production and parental engagement.

## Endnotes

- 1 UNESCO, 'COVID-19 Educational Disruption and Response', 2020a, <https://en.unesco.org/covid19/educationresponse>
- 2 World Conference on Education for All, *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*, UNESCO, Paris, 1990.
- 3 Hallgarten, Joe, *Evidence on Efforts to Mitigate the Negative Educational Impact of Past Disease Outbreaks*, K4D Helpdesk Report 793, Education Development Trust, Reading, UK, 2020.
- 4 Twinomugisha, Alex, 'The Promise and the Challenges of Virtual Schools', 4 Oct 2019, <https://blogs.worldbank.org/edutech/promise-and-challenges-virtual-schools>
- 5 Tauson, Michaelle, and Luke Stannard, *EdTech for Learning in Emergencies and Displaced Settings: A Rigorous Review and Narrative Synthesis*, Save the Children UK, London, 2018.
- 6 Kremer, Michael, Paul Glewwe and Sylvie Moulin, 'Many Children Left Behind? Textbooks and Test Scores in Kenya', *American Economic Journal: Applied Economics*, Vol. 1, pp. 112–135, 2009; Glewwe, Paul, et al., Retrospective vs. Prospective Analyses of School Inputs: The Case of Flip Charts in Kenya', *Journal of Development Economics*, Vol. 74, pp. 251–268, 2004.
- 7 McEwan, Patrick, 'Improving Learning in Primary Schools of Developing Countries: A Meta-Analysis of Randomized Experiments', *Review of Educational Research*, Vol. 85(3), pp. 353–394, 2015.
- 8 Azzi-Huck, Kaliopé, and Shawn Powers, 'The Impact of Ebola on Education in Sierra Leone', 4 May 2016.
- 9 Zhong, Raymond, 'The Coronavirus Exposes Education's Digital Divide', 17 Mar 2020, <https://www.nytimes.com/2020/03/17/technology/china-schools-coronavirus.html>
- 10 Goldstein, Dana, Adam Popescu and Nikole Hannah-Jones, 'As School Moves Online, Many Students Stay Logged Out', 6 Apr 2020, <https://www.nytimes.com/2020/04/06/us/coronavirus-schools-attendance-absent.html>
- 11 Ambrose, Susan, et al., *How Learning Works: Seven Research-Based Principles for Smart Teaching*, Jossey-Bass, 2010; Dumont, Hanna, David Istance and Francisco Benavides, *The Nature of Learning: Using Research to Inspire Practice*, OECD, Paris, 2010; Smith, Michelle, 'Learning Theory', in *The Encyclopedia of Pedagogy and Informal Education*, 1999–2020, <https://infed.org/mobi/learning-theory-models-product-and-process>
- 12 Carlson, Sam, and JBS International, *Using Technology to Deliver Educational Services to Children and Youth in Environments Affected by Crisis and/or Conflict*, USAID, Washington, DC, 2013; Center for Educational Leadership, *The 5 Dimensions of Teaching and Learning Instructional Framework Version 4.0*, College of Education, University of Washington, Seattle, 2012; Tauson and Stannard (2018); World Bank, *World Development Report (WDR) 2018: Learning to Realize Education's Promise*, World Bank, Washington, DC, 2018.
- 13 For example, in Moore county schools in the US, the learning objective for middle schools was reinforcement, while in high schools the objective was progression. In the Chesapeake Public Schools district, learning objectives varied by length of school closure: phases 1-2 focused on review of priority skills and phase 3 on delivering new content.
- 14 World Bank, *Remote Learning and COVID-19: Rapid Response Briefing Note*, World Bank, Washington, DC, 2020a.
- 15 Tauson and Stannard (2018).
- 16 World Bank (2020a).
- 17 E.g. in South Africa, television and radio programmes target grades 10-12 and ECD. A more common trend is for some countries to develop content not at the grade level but for a combination of grades (e.g. Argentina, Belize, Bhutan and Fiji [TV/radio]).
- 18 In Bhutan, TV education for grades 1-6 covers english, dzongkha and math. In Jordan, remote learning content is for english, arabic, math and science for grades 1-11. Meanwhile, in Kenya, TV programmes for primary pupils cover math, kiswahili, home science, hygiene and nutrition, social studies, environment.
- 19 The length of each lesson varies: <10 minutes (Kenya TV), 20 minutes (Kenya radio), 15-30 minutes (Bhutan), 20-30 minutes (Rwanda, Turkey), 40 minutes (Uganda, Brazil), 30-60 minutes (South Africa), >1.5 hours (Argentina's Pakapaka, Encuentro channels). There is also variation in the amount of time allocated for radio/TV instruction in a week. For example, the Kenya radio broadcast schedule shows one 20-minute lesson for grade 5 math per week. In Turkey, math lessons for grade 5 are telecast for 20-30 minutes twice a week, and in Liberia, they are broadcast for 30 minutes 3 days a week. Whereas, in Bhutan, in the last week, math lessons for grades 4-6 were offered on 6 out of 7 days for 25 minutes per day.
- 20 In Senegal, education.sn provides links to external platforms that host various education resources (cm2.examen.sn, Khan Academy, learningapps.org, etc.). The onus is on the user to sift through the many resources on these platforms to find what is relevant. In contrast, in Belize, 'online lessons' comprise education videos, activities, games, exercises which have been curated from different platforms, are structured by grade and day, and embedded in the grade- and day-specific lesson itself.
- 21 Supplementary materials on Rwanda's e-learning portal were designed for classroom learning. Hence, they contain many activities requiring group work and teacher facilitation. The onus of adapting it for home learning thus falls on the learner or the parent.
- 22 Plan Ceibal in Uruguay provides a learning management system, educational apps, a digital library (with textbooks, recreational reading, audio stories, videos, songs, images), and a repository of open education resources, among others. The Caribbean Examinations Council (CXC) has consolidated previously offered content on various CXC websites in a central Learning Hub including past papers, interactive syllabuses, digital toolkits, subject reports and exemplars. Meanwhile, the Rwanda e-learning portal offers pupil's books and teacher guides while on-demand audio lessons can be accessed at its youtube channel; and in Fiji, education.gov.fj offers only worksheets and past exam papers for download. However, the radio broadcast schedules of Fiji and Rwanda suggest that radio lessons cover only selected subjects and not all the subjects for which supplementary materials are available.
- 23 World Bank (2018); Chief Executives Board for Coordination (CEB), *Towards a United Nations System-wide Strategic Approach for Achieving Inclusive, Equitable and Innovative Education and Learning for All*, CEB/2019/1/Add.4, Geneva, 2019
- 24 For example, the radio broadcast schedule in Kenya includes weekly slots allotted for health education and career information. In El Salvador, weekly learning content is provided for artistic and physical education and education chess, while in Liberia, the radio programme covers civics (for grades 3-5 and 11-12 as per the schedule issued in April and for grades 1-5 as per the schedule issued in May).
- 25 For example, weekly pedagogical guidelines to teachers are provided in El Salvador for art education, physical education and educational chess, including activity descriptions, for the primary level. The Jordan e-learning portal posts daily videos on sports for each of the primary and secondary grades. However, videos are uploaded daily and each day's lesson is only available on the platform for one day only. In Argentina, radio lessons are integrated

- i.e. they combine multiple topics from different subjects in one 30-minute lesson. Hence, non-academic topics are weaved into these lessons — e.g. the schedule for grades 2-3 mentions physical education (May 13) and music (May 4). Meanwhile, the digital learning platform in [Colombia](#) provides links to allied content — comprising games, videos, podcasts, etc., for 21st century skills and physical education. This content is typically not structured (by grade and/or by day) and it is up to the user to select what to do and when.
- 26 Twice a week @ 30 minutes per lesson ([Liberia](#) – civics); Daily @ <5 minutes per lesson ([Jordan](#) – sports); Once a week @ 20 minutes per lesson ([Kenya](#) radio – career information, drugs and substance abuse); once a week @ 30 minutes per lesson ([South Africa](#) Mindset TV – sexual health and HIV). In [Argentina](#), ‘la clase del día’ plans for the second week of May show art for grades 2-3 but no other art activity is mentioned in the ‘la clase del día’ plans for the previous four weeks (in contrast, math activity for grades 2-3 is mentioned 1-2 times every week).
  - 27 See Liberia (footnote 24), Jordan and El Salvador (footnote 25). In [Argentina](#), ‘la clase del día’ plans for the second week of May show art for grades 2-3 and music for grades 4-7. In [Kenya](#), lesson on drugs and substance abuse is aired once a week for upper primary.
  - 28 Take art education for example. In [El Salvador](#) and [Argentina](#), content description suggests a focus on students engaging in hands-on art activities, whereas in [Morocco](#), the art lesson comprised of lecture and a worked example by the teacher. Meanwhile, Plan Ceibal in [Uruguay](#) coordinates online interaction and dialogue between students, teachers and artists. During Ebola, an art program implemented in [Liberia](#) by an NGO integrated therapeutic expressive art therapy with life skills and was run by trained facilitators in the community.
  - 29 Active learning approaches for non-academic learning at home are used by El Salvador (footnote 28), Uruguay ([contests and challenges](#), digital educational [activities](#) to do from home in computational thinking, programming, micro: bit or world activities ceilab space maker), etc. Few teachers in the US and China have adapted [project-based learning](#) for the home learning environment. Also, in the US, the [Chesapeake Bay Foundation](#) (CBF) combines videos of professional educators discussing environmental topics with an investigation activity (like nature journaling, scavenger hunts) that learners can do in their homes and backyards. According to CBF, this series has been integrated in remote learning by some local schools and teachers.
  - 30 Uganda is a good example where transferable skills are explicitly incorporated in remote learning content. According to the [Ugandan](#) framework for continuity learning, the design of subject-based remote learning content for upper primary and secondary levels will focus on innovation, problem solving and core competencies that students are expected to acquire from the subject.
  - 31 Aspects of transferable skills development are explicitly woven into integrated lesson in Argentina (e.g. talking about [emotions](#)), [South Africa](#) (active learning daily guides), etc. In [Colombia](#), the learning platform links to other sites that have games and activities for development of 21st century skills, but this content is not structured for daily learning and depends on learners’ motivation and interest if she will access them.
  - 32 Hallgarten (2020).
  - 33 The Wallace Foundation, *READS: Helping Children Become Summer Bookworms*, The Wallace Foundation, New York, 2018; Kim, Young-Suk Grace, and Marcia Davidson, *Promoting Successful Literacy Acquisition through Structured Pedagogy*, USAID, Washington, DC, 2019.
  - 34 Cunningham, Gini, *The New Teacher’s Companion: Practical Wisdom for Succeeding in the Classroom*, ASCD, 2009; MURSD Educator Evaluation, ‘Element I-A-4. Well-Structured Lessons’, 2014, <http://mursdedeval.weebly.com/well-structured-lessons.html>; Kim and Davidson (2019).
  - 35 For instance, it requires some effort and initiative to match lessons on Edu TV Kenya with complementary materials on Kenya Cloud, as the sequencing of lesson topics and titles is not aligned between the two. In one instance, i.e. Math Lesson 3 for Grade 1: Reading and Writing Numbers on [Edu TV Kenya](#), it was not possible to find a corresponding lesson in [Kenya Cloud](#). It is also not clear what is the link between the radio and TV lessons. For instance, the 3 [videos](#) for math grade 5 on Edu TV Kenya were about divisibility, while the 3 [radio](#) lessons for math grade 5 on Kenya Cloud were on the area of a circle and percentage increase/decrease. In another instance, in Belize, for one of the days, grades 1-2 [printed lessons](#) covered rhyming words, compound words, prefixes, however, the [audio](#) lessons for grades 1-2 for that and the previous week covered different topics.
  - 36 Carlson and JBS International (2013); Kim, James, and David Quinn, ‘The Effects of Summer Reading on Low-Income Children’s Literacy Achievement from Kindergarten to Grade 8: A Meta-Analysis of Classroom and Home Interventions’, *Review of Educational Research*, Vol. 83 no. 3, pp. 386-431, 2013.
  - 37 During Ebola for example, less than twenty per cent of Sierra Leonean children did assignments followed by the EREP. Lack of activity books and supplementary learning materials was one contributing factor. Radio and TV programmes are short and typically cover each topic only once which does not allow for deep learning, although there are some cross-country differences. For instance, in [Brazil](#), the video lesson on objects and shapes for grade 1 is nearly 40 minutes and in Kenya, the lesson on the same topic on Edu TV [Kenya](#) is 6 min. In another example, the lessons on sound blocks on [Rwanda’s](#) elearning youtube channel (i.e. English Literacy Lesson 1, 2 and 3) are around 20 minutes each while in [Bhutan](#), just the letter sounds /ch/ and /sh/ get 20 minutes and 30 minutes, respectively. Further, learning stagnates if these (short and fast paced) lessons are not accompanied by associated practice activities or if these are hard to find. In some cases (e.g. Rwanda), the radio lesson unit title and sequence matches that of in the student workbook on the e-learning portal, but sometimes the [workbook](#) activities appear to expect a deeper understanding of the topic than can be provided by the short [radio](#) lesson.
  - 38 Ambrose et al. (2010); Hattie, John, and Helen Timperely, ‘The Power of Feedback’, *Review of Educational Research*, 77, pp. 81–112, 2007; Future Learn, ‘Importance of Feedback in Assessment’, 2017, <https://www.futurelearn.com/courses/educational-design/0/steps/26436>
  - 39 [UNESCO UIS](#); World Bank, ‘How Countries are Using Edtech (Including Online Learning, Radio, Television, Texting) to Support Access to Remote Learning During the COVID-19 Pandemic’, 2020b, <https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic>.
  - 40 Nestour, Alexis Le, and Laura Moscoviz, ‘Five Findings from a New Phone Survey in Senegal’, 24 April 2020, <https://www.cgdev.org/blog/five-findings-new-phone-survey-senegal>; Tiruneh, Dawit Tibebe, ‘Covid-19 School Closures May Further Widen the Inequality Gaps Between the Advantaged and the Disadvantaged in Ethiopia’, 21 April 2020, <https://www.riseprogramme.org/blog/COVID-19-ethiopia-school-closures>; UNESCO, *COVID-19 Education Response Webinar: Supporting Teachers to Maintain Continuity of Learning During School Closures, Synthesis Report*, UNESCO, Paris, 2020b.
  - 41 Hailu, Belay Hagos, ‘Education Response to Covid-19: How Can Basic Education be Implemented in Ethiopia?’, 11 May 2020, <https://www.riseprogramme.org/blog/COVID-19-ETH-Basic-Education>
  - 42 Ambrose et al. (2010).
  - 43 In [Bulgaria](#), each student is enrolled in distance learning six hours a day, including broadcast lessons on national TV. During Ebola, in Sierra Leone, a radio lesson for lower primary and pre-primary was 1 hour long on IRN and SLBC Radio. In [Israel](#), the education ministry’s distance education programme has been criticized for being too long for pre-schoolers and elementary students.
  - 44 Kostyrka-Allchorne, K., N. Cooper and A. Simpson, ‘The Relationship Between Television Exposure and Children’s Cognition and Behaviour: A Systematic Review’, *Developmental Review*, 44, 19–58, 2017.

- 45 Béteille and Evans (2019).
- 46 World Bank, *What Matters for Teacher Policies: A Framework Paper*, SABER Working Paper Series 4, World Bank, Washington, DC, April 2013.
- 47 Bold, Tessa, et al., *What Do Teachers Know and Do? Does It Matter? Evidence from Primary Schools in Africa*, World Bank Policy Research Working Paper 7956, World Bank, Washington, DC, 2017; Reimers and Schleicher (2020); UNESCO (2020b).
- 48 Reimers, Fernando, and Andreas Schleicher, *A Framework to Guide an Education Response to the COVID-19 Pandemic of 2020*, OECD, Paris, 2020.
- 49 Burns, Mary, *Distance Education for Teacher Training: Modes, Models, and Methods*, Education Development Center, Washington, DC, 2011. An example of expert coaching support via skype in Brazil can be seen in Bruns, Barbara, Leandro Costa and Nina Cunha, *Through the Looking Glass: Can Classroom Observation and Coaching Improve Teacher Performance in Brazil?*, World Bank Policy Research Working Paper 8156, World Bank, Washington, DC, 2017.
- 50 Hallgarten (2020).
- 51 Vegas, Emiliana, 'School Closures, Government Responses, and Learning Inequality Around the World During COVID-19', 14 April 2020, <https://www.brookings.edu/research/school-closures-government-responses-and-learning-inequality-around-the-world-during-covid-19>
- 52 Evans, David, 'Four Cautionary Lessons About Education Technology', 25 Mar 2017, <https://blogs.worldbank.org/education/four-cautionary-lessons-about-education-technology>
- 53 Béteille, Tara, and David Evans, *Successful Teachers, Successful Students: Recruiting and Supporting Society's Most Crucial Profession*, World Bank, Washington, DC, 2019.
- 54 Anzalone, Stephen, and Andrea Bosch, 2005, *Improving Educational Quality with Interactive Radio Instruction: A Toolkit for Policymakers and Planners*, World Bank, Washington, DC, 2005.
- 55 Carfax Projects, *Evaluation of Africa Educational Trust's Speak Up II in South Sudan: Final Evaluation Report*, Carfax Projects and AET International, London, 2014; Ho, Jennifer and Hetal Thukral, *Tuned in to Student Success: Assessing the Impact of Interactive Radio Instruction for the Hardest-to-Reach*, Education Development Center, Washington, DC, 2009.
- 56 Estrada, Rafael Quiroz, 'Telesecundaria: Students and the Meanings They Attribute to Elements of the Pedagogical Model', *Mexican Journal of Educational Research*, Vol.8 (17) pp. 221-43, 2003.
- 57 Pearson, 'Teaching Presence White Paper', Pearson Education Inc., 2016.
- 58 Bacsich, Paul, et al., *Virtual Schools and Colleges: Providing Alternatives for Successful Learning, Volume 2*, ATiT bvba, Belgium, 2013.
- 59 According to UNESCO, 58 of 84 surveyed countries had postponed or rescheduled exams, 23 introduced alternatives, 22 maintained exams while in 11 countries, they were cancelled altogether.
- 60 There are many instances where no answer key is presented (e.g. [Fiji](#), [South Africa](#), [Rwanda](#) (e-portal)). Even when the answer key or correct answer is provided, or a prompt is given for an incorrect answer, it is quite common to find that no explanation is given to arrive at the right answer (e.g. [Kenya](#)), nor is any reference made to the relevant lesson unit or concept to be reviewed (e.g. [Guyana](#)). A notable exception is the [Eneza Education](#) app. [Rwanda](#) has also launched code\*134# meant for self-assessment using mobile phones, which claims to give feedback in terms of score obtained and revision needs.
- 61 Hallgarten (2020).
- 62 UNICEF, 'COVID-19 Education Update', 5 April 2020, internal document. Examples of monitoring and feedback solicitation approaches taken by some countries (chatbots, U-Report, SMS) can be found in Dreesen, Thomas, et al., *Identifying "Good Practices" for Equitable Remote Education: Emerging Lessons from COVID-19 Education Responses in 127 Countries*, Innocenti Research Brief 2020-10, UNICEF, Florence, 2020.
- 63 While part of this may be due to gaps in reporting, there is evidence to suggest that this is not always the case, for example the business continuity for education plan for Iraq (summary version).
- 64 World Bank (2018).
- 65 Goldstein, Popescu and Hannah-Jones (2020); Herold, Benjamin, and Holly Kurtz, 'Teachers Work Two Hours Less Per Day During COVID-19: 8 Key Edweek Survey Findings', 11 May 2020, <https://www.edweek.org/ew/articles/2020/05/11/teachers-work-an-hour-less-per-day.html?r=1021174516>.
- 66 Lederman, Doug, 'Why MOOCs Didn't Work, in 3 Data Points', 16 Jan 2019, <https://www.insidehighered.com/digital-learning/article/2019/01/16/study-offers-data-show-moocs-didnt-achieve-their-goals>; Hone, Kate, and Ghada El Said, 'Exploring the Factors Affecting MOOC Retention: A Survey Study', *Computers and Education*, Vol. 98, pp. 157-68, 2016.
- 67 World Bank, WDR 2016: *Digital Dividends*, World Bank, Washington, DC, 2016.
- 68 Vegas (2020).
- 69 *ibid.*
- 70 Dreesen et al. (2020).
- 71 *ibid.*
- 72 30 Thousand Hours, 'Episode 1: Prof Vikki Katz Warns of Hardships School Closures Will Create for Students & Families', <https://soundcloud.com/user-909560222/prof-vikki-katz-on-school-closures>; Lee, Nicol Turner, 'What the Coronavirus Reveals About the Digital Divide Between Schools and Communities', 17 March 2020, <https://www.brookings.edu/blog/techtank/2020/03/17/what-the-coronavirus-reveals-about-the-digital-divide-between-schools-and-communities>
- 73 In [Liberia](#), for example, the radio schedule for Tuesday shows maths for grades 1 & 2 and for grade 6 airing at the same time on different channels (10:00 am). In [Turkey](#), maths lessons on TV are aired at the same time for grades 1, 5 and 9 on three different channels.
- 74 Based on CGD [database](#) on school closures.
- 75 The Learning Network, 'What Students Are Saying About Remote Learning', 9 Apr 2020, <https://www.nytimes.com/2020/04/09/learning/what-students-are-saying-about-remote-learning.html>
- 76 Ambrose et al. (2010); Twinomugisha (2019).
- 77 Brossard, Matt, et al., *Parental Engagement in Children's Learning: Insights for Remote Learning Response During COVID-19*, Innocenti Research Brief 2020-09, UNICEF, Florence, 2020; Wilder, Sarah, 'Effects of Parental Involvement on Academic Achievement: A Meta-Synthesis', *Educational Review*, 66(3), pp. 377-397, 2013.
- 78 Gill, Brian, et al., *Inside Online Charter Schools*, Mathematica Policy Research, Cambridge, MA, 2015.
- 79 Mishra, Sakshi, et al., 'How Involved Are Parents in Their Children's Learning? MICS6 Data Reveal Critical Insights', UNICEF, 20 April 2020, <https://blogs.unicef.org/evidence-for-action/parental-involvement-childrens-learning>

- 80 Carvalho, Shelby, and Susannah Hares, 'More from Our Database on School Closures: New Education Policies May Be Increasing Educational Inequality', 30 March 2020, <https://www.cgdev.org/blog/more-our-database-school-closures-new-education-policies-may-be-increasing-educational>
- 81 Based on CGD [database](#) on school closures.
- 82 Friedlander, Elliott, and Claude Goldenberg, *Literacy Boost in Rwanda: Impact Evaluation Report*, Stanford University, 2016; Cao, Yvonne, et al., *Out-of-School Parental and Community Involvement Interventions Literature Review*, USAID, 2014; Doubt, Jenny, et al., *Delivering a Parenting Programme in Rural South Africa: The Local Child and Youth Care Worker Experience*, Innocenti Working Paper 2018-01, UNICEF, Florence, 2018; J-PAL, 'Encouraging Early Childhood Stimulation from Parents and Caregivers to Improve Child Development', *J-PAL Policy Insights*, 2020; UNICEF, *Standards for Parenting Programmes in Low and Middle Income Countries*, UNICEF, New York, 2017
- 83 Calculations based on Demographic and Health Surveys.
- 84 Reimers and Schleicher (2020).
- 85 Pew Research Center, 'Most Americans Say Coronavirus Outbreak Has Impacted Their Lives', 2020, <https://www.pewsocialtrends.org/2020/03/30/most-americans-say-coronavirus-outbreak-has-impacted-their-lives>; DeVeaux, Amelia, 'This Is Hard For Everyone. It's Even Harder For Parents Who Don't Make Much Money', 23 April 2020, <https://fivethirtyeight.com/features/this-is-hard-for-everyone-its-even-harder-for-parents-who-dont-make-much-money>
- 86 Peterman, Amber, *Pandemics and Violence Against Women and Children*, Working Paper 528, Center for Global Development, 2020.
- 87 World Bank (2020a).
- 88 *ibid.*
- 89 Vegas (2020).
- 90 Markus, Daniel, 'How the Coronavirus Pandemic Will Affect an Entire Generation of Students', 23 April 2020, <https://www.vox.com/2020/4/23/21233042/coronavirus-online-learning-teachers-students>
- 91 Jenkins, Rob, 'Op-Ed: LAUSD Just Closed Schools. Ebola Taught Us Why That May be Extreme', 13 March 2020, <https://www.latimes.com/opinion/story/2020-03-13/op-ed-laUSD-just-closed-schools-ebola-taught-us-why-that-may-be-extreme>

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This issue brief was produced by Office of Global Insight and Policy (OGIP) under the guidance of Laurence Chandy, Director of OGIP and Jasmina Byrne, Chief of Policy Unit, OGIP. The brief was written by Andaleeb Alam and Priyamvada Tiwari. Comments to the document were made by Matt Brossard, Thomas Wells Dreesen, Steven Vosloo, Bassem Nasir, Ingrid Sanchez Tapia, Atif Rafique, and Juan Pablo Giraldo Ospina. The brief was copy-edited by Eve Leckey while design and layout was done by Kathleen Edison.

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