



Resilience and Transformation for the Future of Learning

From Microsoft Education

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Document Objective

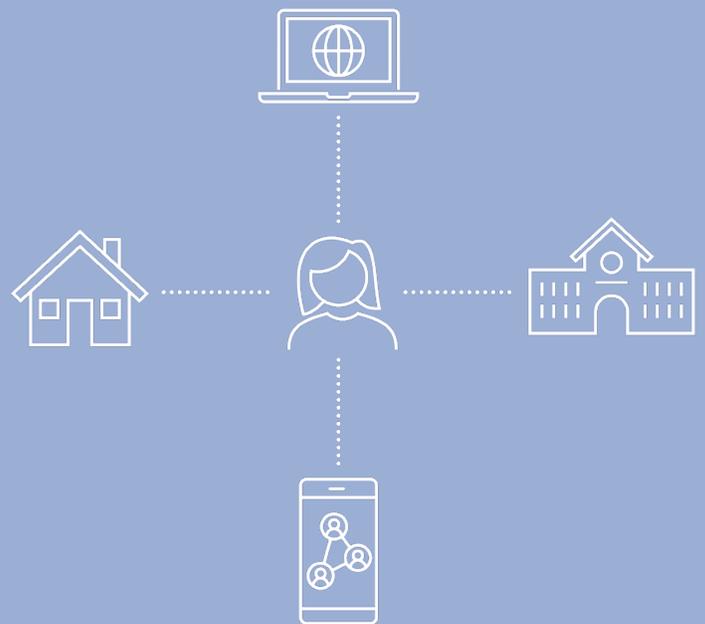
- Provide Education System Leaders concepts and ideas for transitioning from distance learning to building resilient, human-centered models of teaching and learning.

Document Organization

- This document shares key learnings and examples from education systems' responses to the global pandemic.
- The document can be used to inform planning after education systems have implemented distance learning ([Technology Blueprint](#)) and begun to develop new teaching capacities ([Teaching and Learning Training Plan](#)).
- Many excellent documents have been developed to guide policy makers and system leaders transitioning from distance learning to hybrid and future models of learning.¹ This document builds from those.

Four Key Questions:

1. What are the **options for re-opening schools**?
2. How do we make our education systems more **resilient**?
3. How can we transform **learning for the future**?
4. How can we make our education systems more **human-centered**?



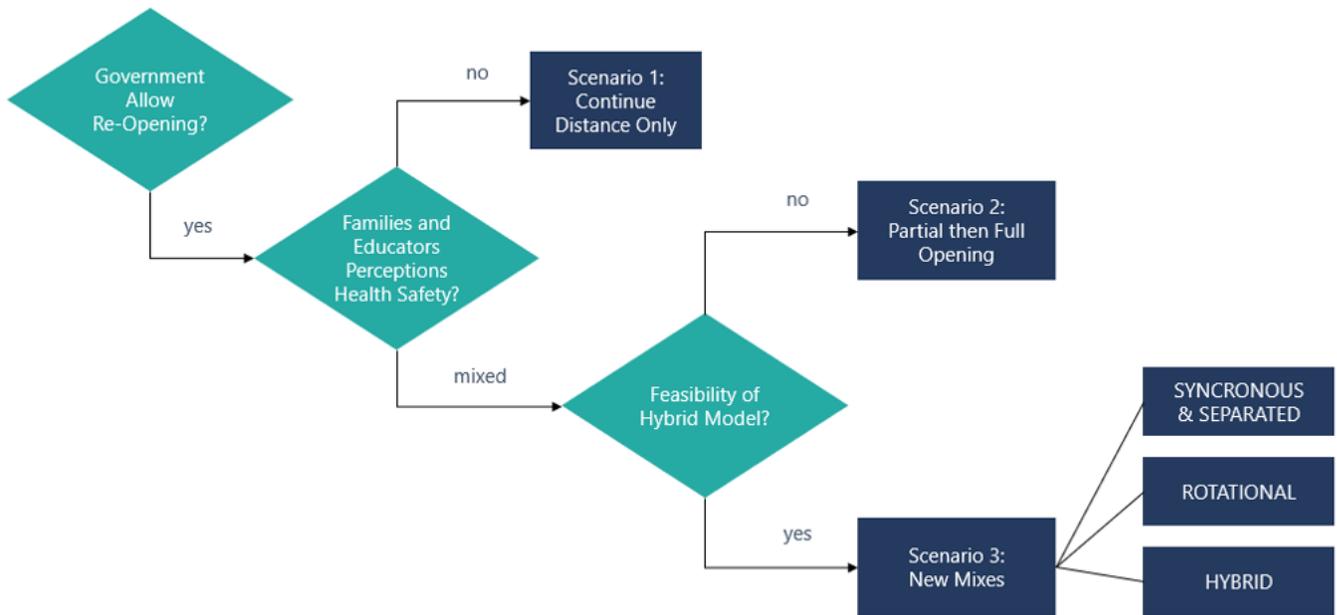
¹ See in particular, UNESCO's Global Education Coalition, OECD's "A framework to guide an education response to the COVID-19 Pandemic of 2020," New Pedagogies for Deep Learning's Re-imagining Education: from remote to hybrid learning, and Michigan Virtual.

What are the options for re-opening schools?

As countries around the world begin to re-open schools, we have seen different schooling scenarios emerge. There is no one best option for all schools, and much depends on what is feasible within the contexts and concerns of local communities.

While governments may allow school re-openings, local levels of COVID-19 cases may make communities hesitant to allow students to return to school. In many cases, local communities will have mixed support for students returning to schools, and decisions will need to be informed through both stakeholder surveys and remote learning equity, the degree to which technology for learning from home has become available to all students.

Decision Tree for Re-opening scenarios



The three scenarios above each have their own limitations and benefits, but in our discussions with them, most leaders agree that distance learning by itself (Scenario 1) is not the optimal scenario for a learning system that engages and supports all teachers and learners going forward. Three scenarios that mix asynchronous learning (more independent learning, often digital) and synchronous learning (more collaborative, either face to face or online) have developed, with what we describe below as the “Hybrid” scenario emerging as the most innovative and ambitious.

	PARTIAL REOPENING	SYNCHRONOUS SEPARATED	ROTATION	HYBRID
Objective	Re-Open schools only for highest risk students or those who face barriers to learning remotely	Same teacher simultaneously providing instruction to students on-campus and on-line. Students take turns attending live.	Students on-campus for live classes and learning asynchronously from home.	Students on-campus for special classes, counselling, tutoring, and group projects; mixed with online learning that is both synchronous and asynchronous.
Access to devices	<ul style="list-style-type: none"> • Ensure all students <i>not in school</i> have connected devices 	<ul style="list-style-type: none"> • All students continue to need connected devices 	<ul style="list-style-type: none"> • All students continue to need connected devices 	<ul style="list-style-type: none"> • All students continue to need connected devices
Scenario enabled	<ul style="list-style-type: none"> • Only specific groups return to school, such as early primary students, students without connected devices in homes, or students with special needs. • Other students continue distance learning, with connected devices 	<ul style="list-style-type: none"> • School attendance varied (e.g. in morning or afternoon sessions) • Limited campus movement (e.g. staggered times for shifting classes) • Remainder of instructional time through distance learning • Classroom layouts to accommodate social distancing 	<ul style="list-style-type: none"> • Curriculum evaluated to decide what is most important for face to face, and what can be done online • Classroom layouts to accommodate social distancing • Does not necessitate new pedagogical model 	<ul style="list-style-type: none"> • On campus time centered on personal relationships, not content delivery. Team-based learning. • Flexible schedule that allows groups of students to be on campus to do group and project work and build relationships with teachers and other students. May be more optimal for secondary students.
Limitations	<ul style="list-style-type: none"> • Unequal access to teachers face-to-face • Complex division of teachers between those who teach in person vs. online 	<ul style="list-style-type: none"> • Requires teacher capacity-building to equally include in person and online students simultaneously • Student transportation complexity 	<ul style="list-style-type: none"> • May increase teachers' time if teaching in person and needed online • New class schedules & adjusted lesson plans • Scheduling, logistics and transportation complexity 	<ul style="list-style-type: none"> • Implies different pedagogical model, and need for educator capacity-building around that model • Students do not have as much time with each other on-campus • Provides context for team-based learning
Benefits	<ul style="list-style-type: none"> • Limits classroom exposure to COVID-19 for most students and high-risk teacher groups • Gets most distance-learning challenged back 	<ul style="list-style-type: none"> • Helps improve student engagement through daily contact • In-school presence creates more opportunities to support students 	<ul style="list-style-type: none"> • In-school presence creates opportunities to support students face to face when they are there • Enables in person assessment (proctoring exams) 	<ul style="list-style-type: none"> • Increases personal sense of belonging, inclusion and connectedness • Clearer separation between content-centered learning and social and emotional development

Whichever scenario your system adopts, leaders are asking key questions beyond how to re-open schools.

How do we make our education systems more resilient?

The global pandemic has laid bare the weaknesses and inequities of our existing education systems. It is clearer than ever before that our education systems need to become more equitable and more resilient. From climate change, to the increasing speed of economic and labor market changes, to the increasing likelihood of future crises related to health and security, our education systems need to be prepared to adapt and evolve more quickly.

Building resilience starts with school cultures and individuals' mindsets toward adopting new models of teaching and learning. Technology can support and accelerate these efforts, but it cannot be the driver of greater resilience. **Across the world, we have seen that the education systems that already had clear plans and programs for pedagogical transformation and technology adoption before the pandemic were able to transition to distance learning significantly faster and more successfully than other systems.** Several education systems provide examples of how culture and technology can work together to build whole-system resilience through three specific strategies.

- 1. Collaborative capacity-building.** Two education systems stand out in their response to the crisis in terms of leveraging technology to support leaders and teachers in collaborating with each other as they transitioned to distance learning.

In Fresno Unified School District in California, teacher groups were already using a digital platform, Microsoft Teams, [to collaborate in professional learning communities](#) within and between schools. When the pandemic hit and schools closed, those teachers were able to quickly expand their networks with teacher groups across the whole district, showing other teachers how to use Teams with their classes and providing coaching and community support to all teachers. This same group of teachers had been collaboratively building their capacities around new teaching models that encouraged greater student voice, collaboration and formative assessment, and these models were also able to translate to distance learning effectively.

Another example comes from Senegal, where the Ministry of Education was already investing in a national digital transformation initiative before the pandemic hit. A national education platform with curriculum and technology resources had been developed. Working in partnership with UNESCO and Microsoft, the system was able to rapidly respond as schools closed. Approximately 81,000 teachers were provided Microsoft Teams accounts and 200 pedagogical staff of the Ministry were trained as "master trainers" by local training service providers mobilized by UNESCO. These "master trainers" are training classroom teachers on the use of the platform for remote learning. See more on the Senegal story on the UNESCO Global Education Coalition website [here](#).

2. Standardizing Digital Platforms. As technology has proliferated across education systems over the last decades, many different approaches have been pursued. Some systems and universities allow teachers and schools to make their own technology decisions independently, creating a diverse application ecosystem where every teacher chooses what they want to use. In other systems, specific apps and platforms have been chosen for system-wide use. Many systems fall between these approaches, with a mix of standardized platforms and open choice for applications. When schools closed during the pandemic, education systems that adopted one digital platform for distance learning across the whole system were able to transition significantly faster and more effectively than those that allowed freedom of choice at the platform layer. In countries like Georgia and the United Arab Emirates, Ministries of Education worked to turn on Microsoft 365 for the entire country in a matter of days, teachers were trained on Teams quickly, and classes resumed online across the entire system. At the University of Bologna in Italy, the school moved 90% of courses for its 80,000 students online to Teams within 3 days. See more of these stories [here](#).

The most important consideration in decisions on what digital elements to standardize should be first and foremost what will lead to a cohesive and engaging student learning experience. We heard quite vocally from students that when they switch to different platforms between one class and the next, it makes everything more challenging and increases their stress. When they have one platform and know where to look for announcements and meetings, they become proficient with the tools more quickly.

Another important consideration for deciding on whether to standardize relates to what kind of reporting and analytics are enabled. When there are many different platforms and a complex application ecosystem, system leaders can almost never get a full picture of which teachers and students are engaged in their digital learning ecosystem.²

3. Use your Digital Platform for Change Management. Schools and systems that have implemented technology or started to use it more during the crisis are seeing the variety of ways digital platforms can support change management across all stakeholders in their systems. How change management is designed and communicated is critical in building capacities and adapting quickly. As Allan Sheffield from Brisbane Catholic Education in Australia said,

"A large investment in a designated change management team of teachers who used a coaching model to work at the classroom level, modelling lessons and using the products with teachers and students 'in situ' over an extended period of time was essential. This was done remotely during recent conditions. This established the credibility of the change management team members and the Microsoft suite. This was in contrast to other practices we thought may not lead to sustainable change – such as staff meetings or sending teachers to an isolated Professional Development Training."

² New analytics solutions from Microsoft 365 provide reports of digital activity across all classes and schools in a system, which is useful in both distance and hybrid learning.

Once a system has implemented a digital platform like Microsoft 365, it can be used to serve many different functions that support system resilience.

Microsoft 365 Suite	Students	Teachers within a school or a set of schools	All schools' staff across a whole system	Families and guardians
Microsoft Teams	Class collaboration Peer collaboration Assignments Help Desk Teams	Class collaboration Professional learning Student Assignments Help Desk Teams	Staff collaboration Live Meetings Help Desk Teams	Weekly email updates on students' learning
Outlook Email	Formal communications	Formal communications	Formal communications	Formal communications
Stream	Safe and secure video recordings	Safe and secure video recordings	Safe and secure video recordings	
OneDrive	Personal file storage	Personal file storage		
SharePoint	School and system websites	Shared file storage School websites	Shared file storage School and System websites	
Yammer	Whole-school collaboration	Whole-school collaboration	Collaboration across large communities	
Forms	Surveys, quizzes	Surveys, feedback tools	Surveys, feedback tools	Surveys, feedback tools
Planner	Plan projects	Plan projects	Plan projects	
Learning Tools	Immersive Reader Microsoft Translator	Microsoft Translator for student and parent communications	Microsoft Translator for parent communications	Microsoft Translator for parent communications

How can we transform learning for the future?

Shifting to distance learning has forced many educators, schools and universities to reevaluate what curricula and content is most essential for today's learners, and to rethink established models of teaching. Pedagogical transformation has been part of the global education conversation for decades, but many leaders believe the crisis has forced an inflection point where large-scale changes across systems are taking hold. Listening to education system leaders over the past months, three themes have arisen related to pedagogical transformation.

- 1. Curriculum: less is more.** Educators have been questioning what content actually needs to be delivered "live," how it needs to be delivered, and how learning can be redesigned to deepen student engagement when there is less control over student attention in distance and hybrid learning contexts. Here is an example of how Angela Schaerer from Curro Schools in South Africa described their thinking as schools re-opened:

"We are starting with a fairly conservative pedagogical approach for the curriculum: we have trimmed the content and focus on essential/core parts of the curriculum to make up some of the lost time. We have suggested teachers keep hybrid lessons short and simple. There will already be so many distractions with the mix of online and physical students, that we have advised that teaching distractions be minimized: 1) Content presented is focused with only appropriate images that will aid the understanding of concepts; 2) using Forms for quick and regular checks on understanding and prior knowledge before classes; 3) appropriate opportunities for active learning and processing of new information in the lesson and through asynchronous assignments (which include collaboration opportunities and some very simple project or inquiry based learning). Some of our schools are using visualizers with either embedded cameras or webcams to teach using physical classroom whiteboards (and have had to review laptop positioning, taping the board to ensure the teacher uses a space that online learners will see, turning class lights off to reduce flickers on screens etc.)."

2. Intentional Learning Relationships. The pandemic's worldwide distance learning experiment has crystallized the distinction between the academic versus the social elements of schooling. Social wins. Among the majority of students, teachers and leaders we have heard from, this is the aspect of school they miss the most. The complex interplay of human relationships – between teachers and students, between students and students, and between teachers and teachers – establishes the context where learning engagement happens. Content and course design are important, but without the context of 'belonging' to a school or a class, or without personal relationships with a teacher, tutor or peer, the motivation to engage is lacking. Too many students have disengaged from learning during the crisis without this relational context. **For distance and hybrid models to work, there must be a pedagogical shift to design more intentional learning relationships as the foundation for engagement in content, problem-solving, and skills development.** These can take the form of small study groups, project-based learning where students work in teams, peer tutoring, more frequent 'check-ins' between teachers and students directly, etc. These do not all have to be through live discussions. Working online together through chat, email, posts etc. are still human touches that connect and support individual learners.

We have seen examples of systems that are designing distance or hybrid learning with intentional learning relationships at the center. One example comes from Catholic Education of Western Australia, where they designed a [virtual school \(VISN\)](#) centered on relationships. At CEWA they combined an in-person "relationship-building" camp at the beginning of the year with semester and year-long online courses that could be shared by upper secondary students across the large state of Western Australia, including students who lived in remote areas. They do extensive training with the teachers, highlighting the importance of and strategies for building strong connections (teacher – student, and student-student) in an online environment. This program has been hugely successful over 3 years and continues to expand and see learning outcomes that meet or exceed those of face to face classes.

In these early stages of distance learning, many parents and guardians of necessity have become the source of the 'learning relationship' for their students. This has been challenging for many, and swiftly changed assumptions about the value and expertise of the teaching profession.

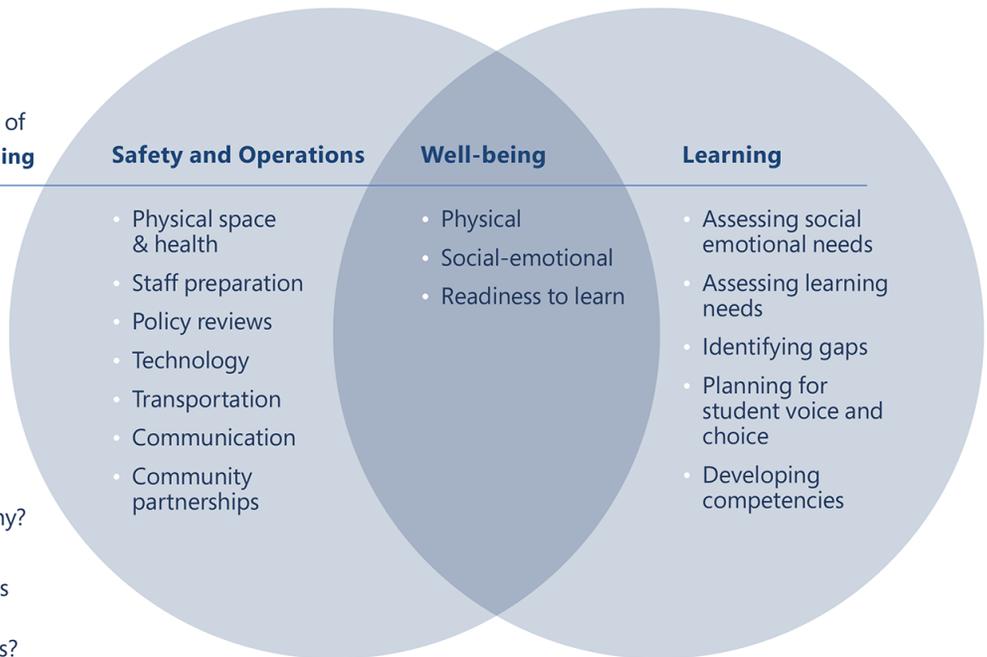
3. Well-Being at the Forefront. Over the past months we have heard many educators ask how they will conduct assessments of learning that are reliable in distance learning contexts. These same educators often say that they care more about keeping students engaged and motivated than they do about testing. One of the first things many schools and universities did was cancel high stakes assessments. Instead, they are focusing on student and teacher well-being. This "Reflection Protocol" from Michael Fullan and Joanne Quinn represents how much the focus on well-being has become central:

Reflection Protocol: What has been revealed during remote learning?

Reflection Process

Decisions filtered through the lenses of **Equity, Well-being, & Quality Learning**

1. How are we doing? Students, teachers, leaders, families
2. What did we learn about our students?
3. What did we learn about our parents/families?
4. What did we learn about our systems?
5. Who has learned well during this phase? Why?
6. Who struggled the most? And why?
7. What learning gaps exist?
8. What skills most enabled students during this time?
9. What skills most enabled teachers?
10. How did technology help/hinder?
11. What were the bright spots?
12. What communications worked best?



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One challenge to well-being has been surfaced by many students, who reported that in the initial weeks and months of distance learning, teachers were not accurately estimating the amount of work they were assigning. In some cases, this led to overwhelming workloads for students already under stress. In other cases, assignments were too light with little to no accountability involved for turning in work or being assessed. Both workload challenges led to student disengagement. Developing more accurate estimates of - and then monitoring - student workloads in distance and hybrid learning contexts will be a critical need as systems design their future models.

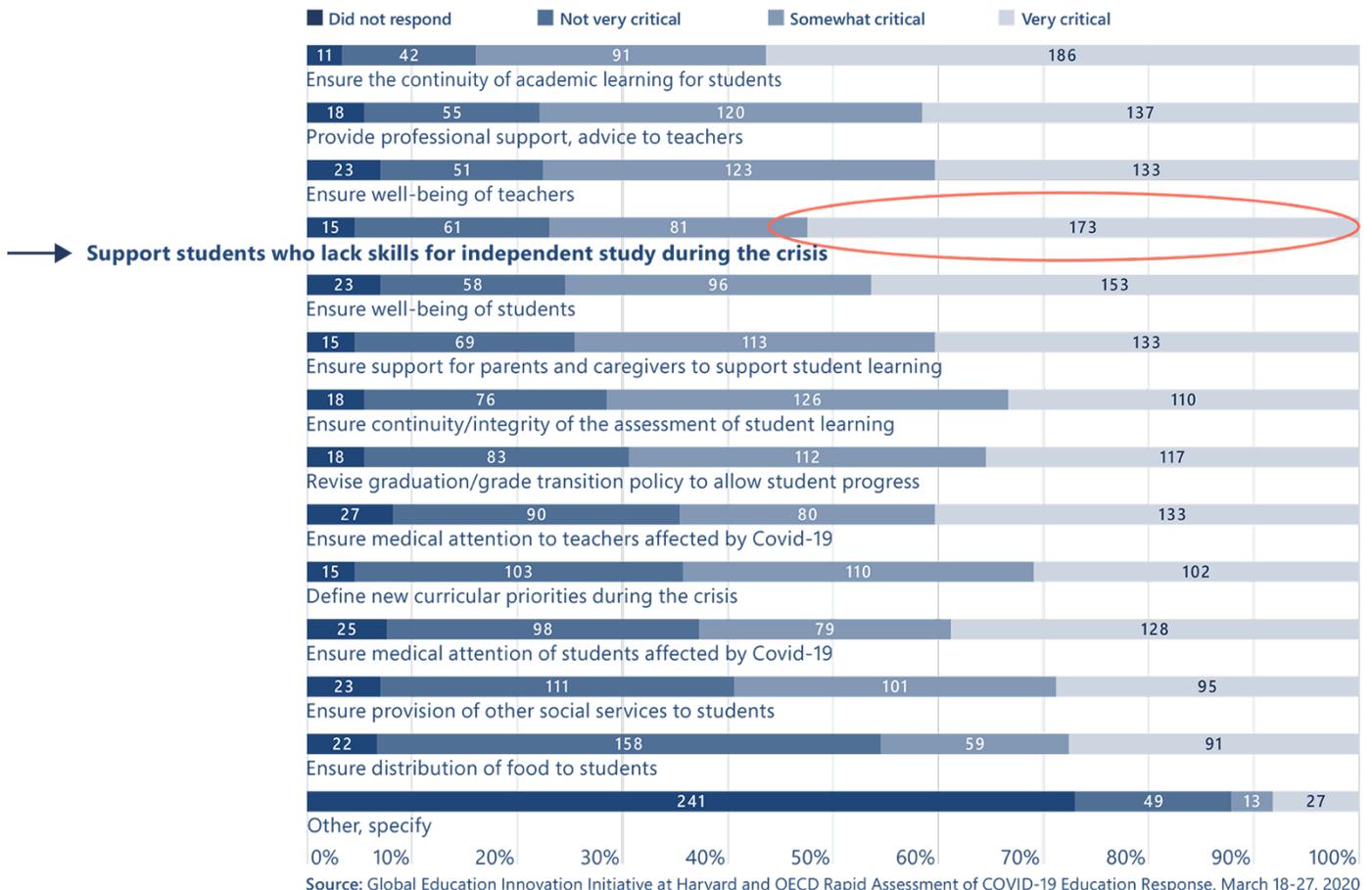
How can we make our education systems more human-centered?

For many years the term ‘student centered learning’ has been used to describe a direction for education system transformation. What this means in terms of specific policies and practices varies widely. School closures and the rapid shift to distance and hybrid learning has created greater clarity on what learners really need, whether those learners are educators or students. Again, what we have learned from education systems and students falls into three categories of focus for new education models:

- 1. Self-management.** The pandemic has tested most people on many different levels: physically, emotionally, and mentally. It has highlighted just how important it is to be able to manage oneself amid change and uncertainty, to be able to adapt and function effectively. In education, this is manifest in one of the top education priorities of respondents from across 98 countries in a recent survey from Harvard and OECD. Supporting “students who lack skills for independent study” was rated as “very critical” by most respondents, second only to the continuity of learning itself.

Independent study skills essential

Table: How critical are the following education priorities in response to the crisis?



For learning and future careers, the ability to self-manage one's own learning journey will be increasingly important to an individual's ability to navigate life. Leaders and teachers must ask how self-management skills can be intentionally developed, supported by technology, and measured as the skill develops. Having students design or co-design their own learning goals and plans, providing students with dashboards of their own progress, increasing the amount and sources of personalized feedback to students (e.g. self and peer assessment), all of these can support students' ability to self-manage, if they are designed into the learning.

- 2. Building Learning Teams.** Research with students today both before and during school closures suggests that learning in groups or teams, especially doing extended projects that connect to real world problems or issues, engages them in learning in different ways than lectures or content delivery. Co-incidentally, this type of team and project-based learning is much closer to the kind of work that takes place in many work settings today. From initial research with students, opportunities for this kind of peer and team learning decreased during distance learning. Many students described distance learning as "challenging," "awkward," and "isolated." When they had whole-class online meetings, many said they did not want to or were explicitly asked not to ask questions while teachers were talking, especially in large classes.

If distance and hybrid learning are to succeed in future iterations, students will need both more experience communicating online, and small-group, emotionally safe opportunities to communicate and collaborate with peers and teachers in real time, e.g. through posts, team chats or live meetings. Teachers and technology companies are working together to enable the same kind of rich collaborative learning designs through digital platforms as students experience in physical classrooms. Leaders shifting to hybrid learning models going forward might consider a stronger focus on this specific type of team-based learning design.

- 3. Knowing People.** One thing that has become clear during the crisis is how little education systems know about the people who are part of their systems: parents, teachers, staff, and students. How do you contact them outside the classroom? What are their digital connectivity and capacity outside of school? How can you track how they are doing physically and emotionally to know who needs immediate support? How much do you know about a student's current stage of progress on essential areas of knowledge, skills and competencies? All of these questions point to the need to dramatically improve education systems' data, and to extend that data beyond the basics such as attendance, class rosters and grades.

Digital tools and platforms make it vastly easier to collect and manage these types of data, from moving surveys to mobile devices, to using reports of digital teaching learning activities, to enabling automated reporting of all kinds in real time. It starts with establishing basic contact data to enable digital communications with all stakeholders. Mobile phones are the most prevalent technology on the planet today, owned and used by a higher percentage of households even in poor and remote contexts than television and radio. Thus, data systems and apps for mobile phones can

be designed as the primary means of data collection and communication for education systems. Data sources can be extended to include data on how teachers and students are [engaging within their digital learning platforms](#) and applications (e.g. are they 'showing up' online?) And insights from data can be enriched by developing and collecting measures that provide indicators of well-being (e.g. frequent '[check-in surveys](#)'). Modern technologies enable tremendously richer data that can go well beyond static, once-a-year data collection efforts to provide continuous streams of information to inform direct action to support those most in need and to accelerate engagement and learning for all.

As the global crisis of COVID-19 begins to abate, stakeholders from all sectors—schools, governments, private organizations—must work together to support the development of more resilient, equitable and engaging learning systems. We must continue to learn together and develop clear and shared visions for the next era of learning.

