

# Equitable education in a post-pandemic world:

Effective learning for every student

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## About this white paper

As education systems around the globe move towards recovery from the Covid pandemic, a major challenge is how to ensure equitable and inclusive learning opportunities for every student. For the purposes of this paper, we will be looking at equity in education as the ability for every student to reach their potential at school, no matter what their background or constraints.

Remote learning posed significant challenges for disadvantaged students, and schools were faced with differing levels of learning during lockdown periods dependent on individual circumstances. Students needs and expectations have evolved along with those of their parents. Emerging approaches developed across the world can help to tackle learning gaps by focusing on fundamental issues like reading, improving social and emotional learning and creating more inclusive approaches to raise digital skills.

This white paper aims to explore challenges and potential solutions based on the input from a series of virtual fireside chats, interviews, and case studies from leading educators across the globe. We'll begin with an introduction from Gavin Dykes, Program Director at the Education World Forum, followed by perspectives from the World Bank on equity and the role of education technology in addressing equity challenges. The next section presents case studies of how education systems are focusing on resolving equity challenges. The final part summarizes steps that education systems can take to ensure more equitable approaches to education as we navigate the Covid pandemic and beyond.

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# Introduction

## Gavin Dykes

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Wherever you look, equity seems key to recovery and moving on from difficult times. Three such examples of this common theme in recent global research on education include calls to action to: “ensure equity and align resources with needs<sup>1</sup> to create a whole society approach that delivers equity in education”<sup>2</sup>; “ensure inclusive access to opportunities after this crisis we need to put equity in action in the recovery”<sup>3</sup>. Focusing on equity makes sense, not least because those who lose out most in crises are so often our poorest.

There is of course inequity of access to technology and access to learning, but also inequity in access to learning support; inequity in literacy and numeracy skills acquisition; and inequity reinforced by differing levels of access to technology and proficiency in its use. Inequity takes many forms and may arise and be amplified by a complex combination of causes. How can we reduce inequity? Some have identified the difference between good help and bad help, and the design decisions that can lead to success and failure when it comes to policy<sup>4</sup>.

‘Good help’ starts with listening, laying aside presumed answers and ensuring we check for context and circumstance. It’s just like improving learning or personalizing learning at scale. Thinking such personalization through is valuable and important, not least when applying algorithms and artificial intelligence to social and education issues. We should think hard and work carefully to ‘bake in’ equity if we are to use technology tools for the common good.

There are other tools that can help structure our listening to engage all stakeholders in assessment and review of progress which can lead to more widespread agency and improve and develop better collective intelligence<sup>5</sup>. A tool developed to help mature adoption of technology in schools was Naace’s self-review framework<sup>6</sup> in the UK. The framework included a series of descriptions of what good adoption looked like in areas such as leadership, teaching and learning, and professional development of teachers. If used wisely, the Self

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<sup>1</sup> Effective and Equitable Educational Recovery – 10 Principles; Education International; OECD 2021

<sup>2</sup> Unwin, T., Naseem, A., Pawluczuk, A., Shareef, M., Spiesberger, P., West, P. and Yoo, C. (2020) Education for the Most Marginalised post-COVID-19: Guidance for Governments on the Use of Digital Technologies in Education. Act One: Executive Summary. London: EdTech Hub. DOI\*\*\*\*; <https://edtechhub.org/wp-content/uploads/2020/09/Education-for-the-most-marginalised-Report-Act-1-v8.pdf>

<sup>3</sup> <https://www.philadelphiafed.org/community-development/inclusive-growth/covid-19-equity-in-recovery>

<sup>4</sup> <https://www.nesta.org.uk/report/good-and-bad-help-how-purpose-and-confidence-transform-lives>

<sup>5</sup> Syed, Matthew (2019) Rebel Ideas – The Power of Diverse Thinking

<sup>6</sup> <https://www.naace.co.uk/si-srf.html>

Review Framework encouraged stakeholder groups to discuss progress and to identify priorities for improvement. We might wonder if the principle of the self-review framework could be developed and applied to issues other than technology adoption—and perhaps to our current challenges of equity, recovery, and progress.

Teachers have done brilliant work in supporting students during the pandemic. Many have gone far beyond boundaries normally expected in their work. How much freedom have teachers had recognizing students who have reacted positively by taking charge of their learning in a personalized way? How many students have had found their own new positive learning pathways through last year’s extraordinary circumstances? Some students have become key to keeping families and communities working; others have stepped up to take on additional responsibilities or yet more have gone beyond the boundaries of curriculum and learned new skills and knowledge in unanticipated subject areas. Should we all be recognizing such students and encouraging them in their efforts? Or should we simply gather data about performance against pre-existing curriculum? They say it’s an ill wind that blows nobody any good—a saying first recorded in 1546<sup>7</sup>. It would be a shame to miss acknowledging and celebrating any of the hard work and good learning that has so recently emerged, by teachers and learners alike.

## Perspective on equity from the World Bank—and how education technology can help bridge the gap

“There is inequity everywhere, from the most developed to the least developed countries, and so this is now a global problem, and the world needs to turn its attention to inequity,” said Alex Twinomugisha, Ed Tech Specialist at the World Bank.

Learning poverty is a huge challenge. Globally, the share of 10-year-olds that cannot read a simple paragraph prior to Covid was 53%, but since Covid this has risen to at least 63%, with some areas like Sub-Saharan Africa now reaching more than 90%.

Equity challenges are very diverse. Income is a major challenge for families, and so removing school fees globally is a key priority of the World Bank to enable access to basic education. The gender divide is another serious issue that the team is focusing on to help ensure students can go to and complete school. Special needs continues to be an ongoing challenge for education systems, as well as rural-urban divides where schools may simply not be accessible.

Equity issues can also be generated by the lack of appropriate support. This can take many forms, from a lack of teachers to teachers without appropriate training, insufficient access to books or other learning materials, and an unsupportive home environment.

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<sup>7</sup> <https://www.phrases.org.uk/meanings/ill-wind.html>

“First we have to get children back into school. One of the worries we have is that children are not going to come back—especially the most vulnerable,” said Twinomugisha.

In priority order, it is thus first necessary to get all children back to school. The second priority is to ensure all children at school are learning—including those with special needs—by providing an environment that enables effective learning. And finally, recognize that when children return to school post closures, there will be more significant learning differences than before—and ensure that these learning losses are compensated for.

“In some countries schools have been closed up to a year, they have lost enormous learning compared to where they should have been. That learning gap has to be filled,” Twinomugisha added.

To do that, systems need to focus on remediation and teaching students at the right level depending on their learning needs. Tutoring is an approach being used by some countries to help students catch up.

However to do that, “[i]t’s become glaringly clear that if you want to reach all children [...] you have to close the digital divide,” says Twinomugisha. That means focusing on connectivity, the right device for learning and the right skills to use it for students. But it also means ensuring teachers are adequately trained, and Ministries of Education and schools have the capacity to deploy and manage technology effectively.

To bridge the gap, partnerships are essential, and governments have innovated during the pandemic by establishing partnerships with NGOs, the private sector, telecom companies to offer free data connections to educational content as well as in building nutrition programs.

“Many governments are partnering with Microsoft to give access to learning management systems,” said Twinomugisha.

From the World Bank perspective, they are working hard to offer both financial resources as well as policy advice and knowledge, based in evidence, for countries to come together and focus on equity and inclusion. They recommend scaling up the investment in technology, as it’s proven its importance and has promising solutions such as adaptive learning to focus on individual needs.

“We forget there is a school closure somewhere around the world on a weekly basis,” added Twinomugisha, and he highlighted the importance of school systems becoming more resilient and flexible.

Fundamentally, it’s crucial that students keep learning wherever they might be, and that to bridge the gap of learning losses, we need to enable wider access to learning opportunities both in and out of school.

# Equity Case Studies from Across the Globe

## Inclusive social and emotional learning in Western Australia

Catholic Education Western Australia is a state-wide education system, covering 168 schools and 70K students with a strong focus on student well-being. Their strategy involves promoting wellness for every single student, rather than focusing on preventing illness.

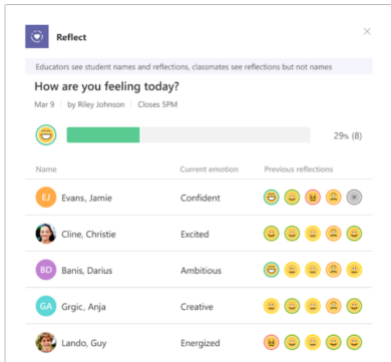
According to Shannon Steven, Well-Being Consultant at CEWA: "...the stats are quite scary. One in four 16–24-year-olds will experience a mental health disorder in a twelve-month period. And one in four children aged 6 to 14 will be assessed with a disorder." This really highlights the need for wellbeing in our schools. CEWA's vision for wellbeing is helping our young people to flourish and we define well-being as "feeling good, functioning well, and doing good for others."

*"Positive education involves moving away from the deficit-based model to a strength-based approach—by understanding the root causes of success and learning how to get more of it."*

**Shannon Steven, CEWA**

Positive education involves moving away from the deficit-based model to a strength-based approach—by understanding the root causes of success and learning how to get more of it. CEWA is using Microsoft's Reflect app, embedded into Microsoft Teams<sup>8</sup>, to help students identify and navigate their emotions. It helps educators to complete a daily check-in with their students, and to measure improvements in student well-being.

It's important for students to recognize, name and respond to their own experiences. The Reflect app helps students to better identify what the emotions are that they are experiencing, and to be able to thus process and manage their feelings. It's important for students to recognize, name and respond to their own experiences.



<sup>8</sup> Reflect in Microsoft Teams for Education - Microsoft Educator Center

## Saudi Arabia creates a more equitable approach to teaching computer science using Minecraft: Education Edition

Since the onset of Covid-19, digital transformation has accelerated, and the number of new technology jobs in the market is expected to reach 150 million by 2025 according to [Microsoft Data Scientists analyzing LinkedIn data](#)<sup>9</sup>. It's thus more critical than ever to build deep digital skills among students, starting from the youngest age.

Traditionally, computer science appeals to a narrow group of students—mainly boys—and curriculum approaches reinforce this as called out by Microsoft in the recent white paper on [Computer Science curriculum](#)<sup>10</sup>.

In the Kingdom of Saudi Arabia, right in the midst of the pandemic, the Edutainment Company worked closely with the Ministry of Education to revamp approaches to computer science education. Although the Edutainment Company had already been running many informal computer science events like the Hour of Code and Saudi Codes, this new initiative involved an education reform to introduce the topic into formal education.

The focus was to make computer science more appealing to a wide range of students, by bringing in game-based learning through Minecraft: Education Edition, and opportunities to learn practical coding skills with Hour of Code.

### **Usage of Minecraft: Education Edition exploded since the initiation of the program**

“We now have millions of participants joining the Hour of Code and the Minecraft competition. We have never been more excited for the future of game-based learning, and we are preparing the largest competition together with the Ministry of Education,” said Ayman El-Attas, Program Director at the Edutainment Company and Minecraft mentor.

Embedded into every program brief as well as the [Vision 2030 of Saudi Arabia](#)<sup>11</sup>, diversity and inclusion is a key part of Edutainment Company's strategy, as well as personalized learning approaches.

### **Teacher training is crucial when introducing computer science and Minecraft: Education Edition**

“Teachers are at the heart of any program success. We make sure teacher empowerment happens at three stages. Content creation, tailored to educators, which shows that game-

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<sup>9</sup><https://msit.powerbi.com/view?r=eyJrIjojZWMyNjA0YzAtZGY4Zi00MTI1LTk4MjQtNW11NTA5NDY1MzRjIiwidCI6JjcyZjk4OGJmLTg2ZjEtNDZhZi05MWFjLTJkN2NkMDExZGI0NyIsImMiOjV9>

<sup>10</sup> <https://edudownloads.azureedge.net/msdownloads/Microsoft-Computer-Science-Framework.pdf>

<sup>11</sup> <https://www.oecd.org/countries/saudi-arabia/education-in-saudi-arabia-76df15a2-en.htm#:~:text=Saudi%20Arabia%20has%20embarked%20upon%20an%20unprecedented%20reform,puts%20education%20at%20the%20centre%20of%20Vision%202030.>

based tools are powerful educational tools. Change management and empowerment continues in stage 2 with hands on training. And finally, the classroom support level, to ensure the quality and sustainability of the program. Virtual classrooms have proven to be effective using Microsoft Teams. It's key to listen to the system and keep experimenting with new approaches," said El-Attas.

Parents have been kept well informed and have given very positive feedback to teachers. They've reported new levels of enthusiasm among their children for instance in completing math homework as a result of introducing Minecraft: Education Edition.

The usage of Minecraft: Education Edition has also transformed the teacher-student relationship to student centered learning. As students are often highly proficient in using Minecraft, they are becoming "teacher assistants" when their teachers implement the tool in class. The most expert students are helping their peers, and enabling collaboration, communication, and effective team work to achieve a common goal.

With the new education reform driven by the MOE, as well as the support from Microsoft from a transformation perspective, a lot of change is now in process. The pandemic accelerated technology adoption, and so it's given a whole new momentum to computer science education and open-ness among schools to keep improving their education technology usage.

## Literacy for every student in Tacoma schools, USA

617 million children and adolescents across the world are affected by learning loss due to the pandemic, impacting on their ability to read according to UNESCO<sup>12</sup>. Even in the most developed countries, like the United States, school disruptions due to Covid are causing the most disadvantaged students to fall further behind in literacy<sup>13</sup>. Literacy is a fundamental skill, essential to progress in all other school subjects, but also to thrive in life and in society.

Schools in Tacoma in the Pacific Northwest of the United States have been among the first across the globe to adopt Reading Progress to offer personalized reading support for students. Reading Progress in Teams<sup>14</sup> helps students build fluency through independent reading practice, educator review, and educator insights. It enables independent practice, and helps teachers track progress. The app focuses on a positive, progression-based approach that helps students improve and build confidence.

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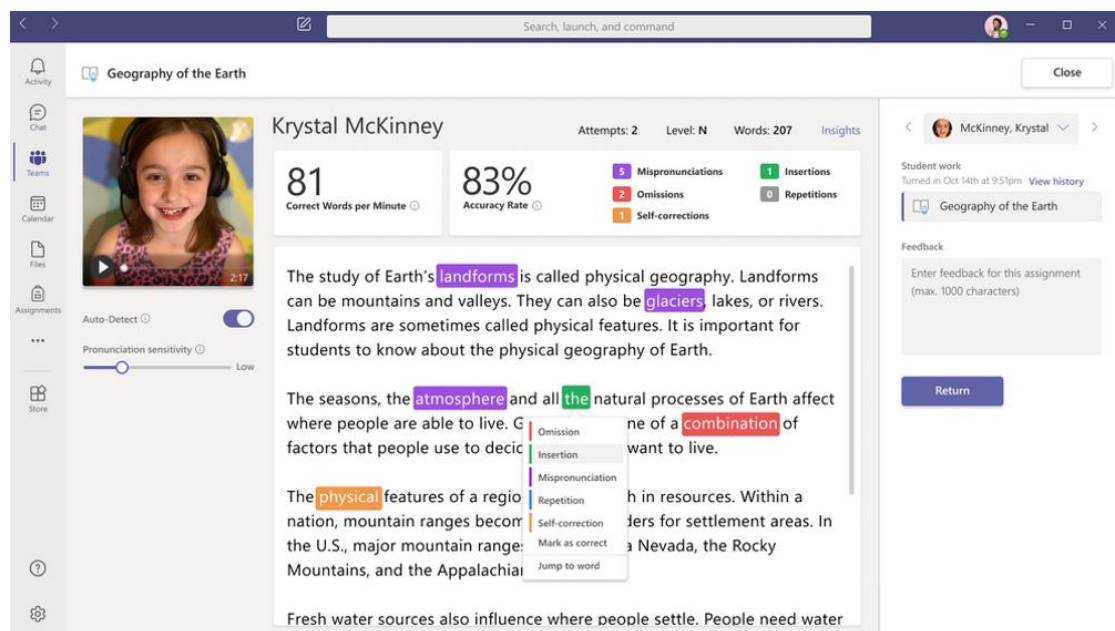
<sup>12</sup> International Literacy day: background paper on 'youth and adult literacy in the time of COVID-19: impacts and revelations', 8 September 2020 - UNESCO Digital Library

<sup>13</sup> Changing Patterns of Growth in Oral Reading Fluency During the COVID-19 Pandemic | Policy Analysis for California Education (edpolicyinca.org)

<sup>14</sup> <https://aka.ms/ReadingProgressPP>



“Struggling readers, they avoid reading—and by avoiding reading, they struggle even more,” said Liliya Petrovskaya, a fourth-grade teacher at Manitou Park Elementary.



As the tool supports independent practice, teachers can give individual reading assignments to every single student at their reading level. As students work independently, it removes anxiety of having to read in front of the whole class. The analysis data generated helps teachers reduce the time to grade students, and to have more time freed up to support students in class time.

“I can spend my planning time to figure out how do I intentionally approach every student, as well as the whole class. [...] Reading Progress motivated a lot of kids and really gave them ownership of their learning,” continued Petrovskaya.

Teachers report that as a result of implementing the app, students are reading more at home, are more excited to read in the classroom and are setting their own individual goals that they wish to exceed.

The data generated by the tool can help understand the learning trajectory not just of individual students but also the whole class—helping teachers and leaders better understand how to allocate teaching time and resources. But above all, the schools underlined that their goal with the tool, is to instill a passion for reading which will unlock the potential for every single student to achieve more throughout their lives.

## Building equity at scale in New York, USA

*“Equity matters—more so than ever.”*

**Superintendent Prayor**

New York Brooklyn South District covers 27 high schools, 1700 teachers and 39,000 students with a diverse community. They have seen there have been huge impacts in terms of learning deficits due to lack of external academic support, or due to family problems.

The first challenge for the district was to address was to understand where issues were sharpest, to provide devices and connectivity to their students. Many students kept cameras off as they were embarrassed about their home environments, and educators needed to be flexible about being able to see students as a result. Educators also adjusted expectations of their students in terms of work completion—especially on timelines for submission of assignments as some students might be sharing their device with multiple siblings.

Partnerships with the private sector really helped to reach out and support those who needed it most. The district also initiated the HEEAT (Healthcare, Energy, Environment, Agriculture and Technology) program to help every single student to focus in on their passions, by enabling students to take classes with employers active in those areas, with the support of teachers engaging with the business community. It’s enabling students to get closer to the world of work and develop their employability.

## Equitable hybrid learning in Guanajuato State, Mexico

The state is using a mix of approaches: broadcast media, workbooks and education technology including Microsoft Teams to stay in touch with students and ensure learning continuity despite school closures.

The Ministry of Education designed a series of digital books that summarized the most important content for teachers and students, and then offered a laptop and Wi-Fi for those students that needed them. They could then download the digital books, and the Ministry saw huge amounts of downloads. They also quickly moved to train teachers in Office 365 for education to support hybrid learning.

“We focused on Teams as the perfect tool for the teaching process and to enable interaction between the teachers and students. More than 1.2 million education accounts were delivered to all K12 students in public and private schools,” said Jorge Enrique Hernandez, Minister of Education, Guanajuato State.

Students could thus keep in touch using email and share content with teachers via cloud storage. The massive training plan and clear vision for online learning led to exponential growth of the Teams platform for learning.

As the next stage, they are creating “Espacio Comun”—or common space, a virtual community in Teams for parents, teachers, students, and staff in one space. The aim is to help parents and teachers track student progress, as well as to provide all the information needed about education in the State. Education leaders will also be brought together in groups to work, plan, manage and report on progress. Teachers are also getting their own professional learning groups to ensure ongoing training.

Creative Universes is also a key part of the Espacio Comun—a new innovation for students to enable collaborative learning, networking and social responsibility. Creative Universes will provide a source of inspiration and entrepreneurship for students, where they can continue to develop skills needed for their future in a hybrid scenario even as they go back in the new school year.

Massive training continues, to upgrade all teacher skills to be able to use the Espacio Comun effectively in a few months’ time. Guanajuato State has been a great example in moving quickly to drive transformation at large scale for all stakeholders in the system.

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# The way forward: How can system leaders foster more equitable education systems as we move beyond the pandemic?

Based on the case studies and interviews, a set of key principles have emerged for system leaders to bear in mind.

- **Equity by design:** learning differences have increased dramatically as a result of the pandemic, with significant learning loss for the most disadvantaged students. Equity thus needs to be front and center of any new education program, and approach and needs to be a top priority in new investments.
- **Ensure every single student can get back to school:** within the constraints of health regulations, it's important to focus on getting students back to the classroom. Technology platforms can support ongoing learning while schools are still physically closed.
- **Ensure every single student has access to the technology needed for learning:** an appropriate device, connectivity, digital learning resources and trained teachers are essential for resilient teaching and learning. Education systems need to ensure appropriate access to infrastructure, learning platforms and trained staff to enable digital learning at scale.
- **Focus on fundamentals and build from there:** basic skills like literacy and numeracy should be addressed when trying to mitigate learning losses. These “gatekeeper” skills enable learning to continue in other areas. At the same time, thinking about how digital competence and employability can be ensured is also a priority to ensure equitable access to digital jobs and an inclusive digital society.
- **Plan for flexibility:** acknowledge that learning differences are more significant than ever and build in more flexible approaches at micro and macro level. This could include more open deadlines for class assignments, as well as adaptive, personalized learning at system level.
- **Help teachers get the training and support they need:** teachers have carried a heavy burden during Covid, rapidly adjusting their pedagogy and their digital pedagogy skills as well as embracing social and emotional learning to accommodate the challenges their students were facing. Ensuring they get ongoing training and recognition for their efforts should be a priority.
- **Leverage community to help:** Covid has brought together the wider community to support education: NGOs, the private sector, and the education system. Building on these new partnerships, to create long-term sustainable action for equity is essential for success.

## Actions

Watch the complete interview series that informed this white paper at <http://aka.ms/VirtualETS>

Visit the system leader hub at <http://aka.ms/systemleaders>

Plan your system transformation journey <http://aka.ms/ejourney>

Review a framework for whole systems transformation <http://aka.ms/k12etf>

Read the paper on *Education Reimagined by New Pedagogies for Deep Learning*  
<http://aka.ms/hybridlearningpaper>

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