



# States of Emergency: Education in the Time of COVID-19

## About NSI

NORRAG Special issue (NSI) is an open-source periodical. It seeks to give prominence to authors from different countries and with diverse perspectives. Each issue is dedicated to a special topic of global education policy and international cooperation in education. NSI includes a number of concise articles from diverse perspectives and actors with the aim to bridge the gap between theory and practice as well as advocacy and policy in international education development.

NSI is produced by NORRAG and is supported by the Open Society Foundations (OSF) and the Swiss Agency for Development and Cooperation (SDC). The content and perspectives presented in the articles are those of the individual authors and do not represent views of any of these organizations. In addition, note that throughout the issue, the style of English (British, American), may vary to respect the original language of the submitted articles.

## About NORRAG

NORRAG is a global network of 5,000 members for international policies and cooperation in education and training. NORRAG is an offshoot of the Research, Review, and Advisory Group (RRAG) established in 1976 and at the time funded by the International Development Research Centre (IDRC) and Swedish International Development Authority (Sida). It was charged with critically reviewing and disseminating education research related to the developing world. The current name was adopted in 1986.

NORRAG's strength lies in addressing under-researched questions of quality and equity in key issues in education and development, and in amplifying under-represented expertise particularly from the South. NORRAG's core mandate is to produce, disseminate and broker critical knowledge and to build capacity for and with the wide range of stakeholders who constitute our network. Our stakeholders from academia, governments, NGOs, international organizations, foundations and the private sector inform and shape education policies and practice at national and international levels. Through our work, NORRAG contributes to creating the conditions for more participatory, evidence-informed decisions that improve equal access to and quality of education and training.

NORRAG is an associate programme of the Graduate Institute of International and Development Studies, Geneva.

More information about NORRAG, including its scope of work and thematic areas, is available at [www.norrag.org](http://www.norrag.org).



@norrag



@norrag.network



<https://vimeo.com/norrag>

# NORRAG

Network for international policies and  
cooperation in education and training  
Réseau sur les politiques et la coopération  
internationales en éducation et en formation

20, Rue Rothschild | P.O. Box 1672  
1211 Geneva 1, Switzerland  
+41 (0) 22 908 45 47  
[norrag@graduateinstitute.ch](mailto:norrag@graduateinstitute.ch)

*NORRAG Special Issue 06, October 2021*

### Coordination

Anouk Pasquier Di Dio

### Editing

Georgia Ellen Thorne

### Design concept

Anouk Pasquier Di Dio

### Production

Alexandru Crețu

NORRAG is supported by



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development  
and Cooperation SDC



OPEN SOCIETY  
FOUNDATIONS



INSTITUT DE HAUTES  
ÉTUDES INTERNATIONALES  
ET DU DÉVELOPPEMENT  
GRADUATE INSTITUTE  
OF INTERNATIONAL AND  
DEVELOPMENT STUDIES

Published under the terms and conditions of the Creative  
Commons licence:

Attribution-NonCommercial 4.0 International (CC BY-NC 4.0)

<https://creativecommons.org/licenses/by-nc/4.0/>



ISSN: 2571-8010



9 772571 801003

# States of Emergency: Education in the Time of COVID-19

## Guest editors

Will Brehm,

Associate Professor, UCL Institute of Education UK

Elaine Unterhalter,

Professor, UCL Institute of Education UK

Moses Oketch,

Professor, UCL Institute of Education UK

# Foreword

COVID-19 has shaken up – and continues to shake up – education systems all over the world in ways that we have yet to fully appreciate, much less address. The global COVID-19 pandemic has left few, if any, people, institutions and systems unaffected. Suddenly in 2020, issues that had previously been dismissed as “Third World Problems” became lived experience for many who had previously been able to ignore them if they chose to. Those who were already marginalised experienced the worst suffering.

The ongoing pandemic is marked by continuities of the inequalities present before: both between North and South, as well as between “economic Souths in the geographic North and Norths in the geographic South.” (Mahler, 2017, p. 1). Enduring, complex and complexly interconnected inequalities (and insufficient responses to them) have been exacerbated by this additional systemic shock. Inadequate action to address these issues before this pandemic means that vulnerabilities during it are further aggravated. Moreover, where sudden disasters shock a system, less attention and funding is given to existing long-term, slow burn stressors. Shocks related to COVID-19 continue to have devastating effects on pupils, teachers and parents, and also on the ways we can think about the purposes and practices of education – and also research into education.

The authors in this NSI argue that the world needs new ways of thinking about and addressing these longstanding issues rather than “business as usual”, which can only continue to exacerbate them. What different ways of seeing and defining problems would allow for appropriate responses? Recognising education systems as complexly interrelated wholes that are open to external shocks and stressors,

and that can influence social and environmental systems beyond the school gates is key. Valuing different knowledge systems; supplying context-sensitive responses; and applying knowledge from other sectors – as well as contributing insights from education to other sectors – matters. This NSI addresses philosophical, theoretical and empirical questions, showcasing local and global dynamics from physical and virtual classrooms through to national governments and international coordination.

In this NSI, 29 articles examine the current states of emergency in which we find ourselves; policy, practice and planning responses to them; and introduce and apply theories that enable readers to understand both these problems and potential solutions more clearly. They argue that COVID-19 has not only created new problems within formal and informal schooling contexts; it has further exacerbated issues that had already been identified as intractable and overdue for action. Within this focus, the authors and editors address questions regarding the continuity of unequalising dynamics in education globally; the complexity of digital inequalities; the simultaneous need for resilient states and global solidarity; new and existing entanglements across time, space and sectors; the challenge to Enlightenment notions of linear progress; and the need to recognize the interrelatedness (not separateness) of humanity and nature, and of social, health and environmental emergencies. Thus, this NSI indicates the urgency and importance of updating existing ways of thinking about inequalities, teaching and learning, education systems, and the vulnerability of education to concerns that originate in other sectors.

This NSI was developed in late 2020 and early 2021, and the phenomenon it addresses is still unfolding as it goes to press in late 2021. Will Brehm, Elaine Unterhalter and Moses Oketch have compiled contributions from 63 authors from five continents to help readers think through and address the states of emergency in which we find ourselves at the beginning of the third decade of the twenty-first century.

**Part 1** addresses the dynamic – and actionable – unequalising forces and decisions that are being exacerbated worldwide, highlighting that the very knowledge that would be most useful in addressing the problem remains largely marginalised (whether Indigenous, context-sensitive, outside formal schooling and more). **Part 2** highlights the complexity and multiplicity of digital inequalities that need to be tackled – beyond access alone – and how to move towards enabling relevant teaching and learning, and data autonomy and commons. **Part 3** calls for both global solidarity and prepared, resilient states: the more resilient states are, the less resilience will be demanded from their citizens.

**Parts 4, 5, and 6** all challenge the centrality of Enlightenment thinking for understanding problems and designing solutions in and for education systems. Recognising Enlightenment values of evidence-informed solutions and democratic debate does not also require assuming a teleological march of one type of “progress” nor the primacy of western

knowledge systems alone. **Part 4** reminds us that meaningful education does not conform to clock time, and outlines some existing and new entanglements with new technologies and actors, and their impacts on teaching, learning and student wellbeing. **Part 5** tackles the broader social tensions highlighted by the COVID-19 pandemic, and the limited nature of both educational and wider social responses to it. **Part 6** calls for the recognition of the complex interrelatedness of peoples, problems and sectors (in this case, education, health and climate change).

NORRAG Special Issue was launched in 2018 with the ambition to be an open-source periodical giving prominence to authors from a variety of countries and with diverse perspectives. In line with NORRAG’s strategy, and seeking to bridge the gap between theory and practice, each issue focuses on current debates that frame global education policy and international cooperation in education. The first NSI was on the [\*Right to Education Movements and Policies: Promises and Realities\*](#), the second edition on [\*Data Collection and Evidence Building to Support Education in Emergencies\*](#), the third edition focused on [\*Global Monitoring of National Educational Development: Coercive or Constructive?\*](#), the fourth edition examined [\*New Philanthropy and the Disruption of Global Education\*](#), and the most recent, NSI 05, addresses [\*Domestic Financing: Tax and Education\*](#).

**Moira V. Faul**

Executive Director  
Geneva

# Contents

States of Emergency: Education in the Time of COVID-19	08
Will Brehm, UCL Institute of Education, UK; Elaine Unterhalter, UCL Institute of Education, UK; Moses Oketch, UCL Institute of Education, UK	
<b>Part 1: Inequalities</b>	<b>15</b>
<b>01 Some Consequences of COVID-19 for Educational Inequalities</b>	<b>16</b>
Frances Stewart, University of Oxford, UK	
<b>02 Learning on the Mountain: COVID-19, Educational Inequities, and Community-Informed Policy in Peru</b>	<b>22</b>
Kayla M. Johnson, University of Kentucky, USA; Joseph Levitan, McGill University, Canada	
<b>03 Can Head Teacher Autonomy Mitigate the Effects of COVID-19 School Closures in India?</b>	<b>26</b>
Rhiannon Moore, University of Bristol, UK; Kalyan Kumar Kameshwara, University of Bath, UK	
<b>04 Strengthening the Education System for Equitable Learning during COVID-19 in Ethiopia</b>	<b>32</b>
Louise Yorke, University of Cambridge, UK; Pauline Rose, University of Cambridge, UK; Tassew Woldehanna, Addis Ababa University, Ethiopia; Belay Hagos Hailu, Addis Ababa University, Ethiopia	
<b>05 The Impact of School Closures in Crisis-affected Contexts</b>	<b>37</b>
Leanne M. Cameron, University of Bristol, UK	
<b>06 Inequalities, COVID-19 and the Private Sector: The Nigerian Education System</b>	<b>42</b>
Lynsey Robinson, UCL Institute of Education, UK; Taibat Aduragba Hussain, Rising Child Foundation, Nigeria	
<b>07 Family-school collaboration for students with disabilities in Ontario, Canada</b>	<b>48</b>
Grace L. Francis, George Mason University, USA; Julia Jansen-van Vuuren, Queen's University, Canada; Navjit Gaurav, Queen's University, Canada; Heather M. Aldersey, Queen's University, Canada; Sharon Gabison, University of Toronto, Canada; Colleen M. Davison, Queen's University, Canada	
<b>Part 2: Technology</b>	<b>53</b>
<b>08 Being Digital: How COVID-19 Changed the Higher Education Landscape</b>	<b>54</b>
Ulrike Rivett, University of Cape Town, South Africa	
<b>09 Navigating Digital Innovation and Inequities in Education Amid the COVID-19 Pandemic</b>	<b>58</b>
Alesia Mickle Moldavan, Fordham University, USA	
<b>10 "Making Visible" Inequality: Remote Learning with Technology During COVID-19</b>	<b>62</b>
Helen Crompton, Old Dominion University, USA; Katy Jordan, EdTech Hub / University of Cambridge, UK; Sam Wilson, EdTech Hub / Overseas Development Institute, UK; Susan Nicolai, EdTech Hub / Overseas Development Institute, UK	
<b>11 Teachers' Digital Agency and Pedagogy during the COVID-19 Crisis in Delhi</b>	<b>64</b>
Kusha Anand, UCL Institute of Education, UK; Marie Lall, UCL Institute of Education, UK	
<b>12 Why is it speaking to me?": Refugee-background Students' Experiences of Education</b>	<b>68</b>
Jáfia Naftali Câmara, University of Bristol, UK	
<b>Part 3: States</b>	<b>73</b>
<b>13 COVID-19, Institutions and the State: Knowledge and Partnerships for Social Justice</b>	<b>74</b>
Adam Habib, University of London, UK	
<b>14 Strengthening Education Systems after COVID-19: How States Can – and Why they Must – Build Back Resilient</b>	<b>78</b>
Christopher Castle, UNESCO, France; Leonora MacEwen, IIEP-UNESCO, France ; Thalia Séguin, IIEP-UNESCO, France	

<b>15</b>	<b>Education in the Time of COVID-19 in the Maldives: The Experience of one Small Island Developing State</b>	<b>82</b>
	Aminath Muna, University of Bristol, UK; Aminath Shiyama, University of Bristol, UK; Waseema Fikuree, The Maldives National University, Maldives; Badhoora Naseer, The University of Auckland, New Zealand; Zahra Mohamed, The University of Waikato, New Zealand ; Fathimath Shafeeqa, The University of Peradeniya, Srilanka	
<b>16</b>	<b>Education under Surveillance in Kashmir in the Era of COVID-19</b>	<b>85</b>
	Ruhail Andrabi, Jamia Millia Islamia, India; Laila Kadiwal, UCL Institute of Education, UK	
<b>Part 4: Progress</b>		<b>89</b>
<b>17</b>	<b>Rethinking Progress and Time: Japanese Nightingales (Uguisu) and COVID-19 in Kyoto</b>	<b>90</b>
	Keita Takayama, Kyoto University, Japan	
<b>18</b>	<b>The Pandemic Shock on an Education System: An Actor-Network Theory Perspective</b>	<b>94</b>
	Pravindharan Balakrishnan, SMK Padang Midin, Malaysia; Nurul Ain Johar, SMK Seberang Marang, Malaysia	
<b>19</b>	<b>Pupil Learning and Well-being in Sierra Leone’s Secondary Schools during COVID-19 School Closures</b>	<b>97</b>
	Zara Durrani, Oxford Policy Management, UK; Ayesha Khurshid, Oxford Policy Management, UK; Ishleen Sethi, Oxford Policy Management, India; Gloria Olisenekwu, Oxford Policy Management, Nigeria; Sourovi De, Oxford Policy Management, UK	
<b>Part 5: Affect</b>		<b>101</b>
<b>20</b>	<b>Education and COVID-19 through the Lens of Affect</b>	<b>102</b>
	Irving Epstein, Illinois Wesleyan University, USA	
<b>21</b>	<b>Affect and Informal Learning through Adaptation of Workplace Practice</b>	<b>107</b>
	Jay Derrick, UCL Institute of Education, UK; Tanya Harris, Arts and Culture Educational Consultant, UK	
<b>22</b>	<b>School’s Out For COVID: EdTech’s Capacity To Support Student Welfare During Crises</b>	<b>110</b>
	Alexander Towne, University of South Wales, UK	
<b>23</b>	<b>Japanese University Student Experiences During the COVID-19 Pandemic</b>	<b>113</b>
	Phillip M. Clark, Kwansei Gakuin University, Japan; Kevin P. Ballou, Kindai University, Japan; Richard H. Derrah, Kindai University, Japan	
<b>Part 6: Nature</b>		<b>119</b>
<b>24</b>	<b>The Best Vaccine: Nature, Culture and COVID-19</b>	<b>120</b>
	Jeremy Rappleye, Kyoto University, Japan; Hikaru Komatsu, National Taiwan University, Taiwan; Iveta Silova, Arizona State University, USA	
<b>25</b>	<b>Complexity Theory and Education in Times of Insoluble Problems</b>	<b>125</b>
	Tom Pegram, University College London, UK; Julia Kreienkamp, University College London, UK	
<b>26</b>	<b>Relinquishing Management: Implications of the Pandemic for the Climate Crisis</b>	<b>130</b>
	Angela Molloy Murphy, Melbourne Graduate School of Education, Australia	
<b>27</b>	<b>Fostering cultural emergence in a climate emergency: permaculture, education and gender climate justice</b>	<b>133</b>
	Georgina-Kate Adams, The Seed, Africa, UK	
<b>28</b>	<b>Intertwined States of Emergency: Education in the Time of COVID-19 and the Climate Crisis</b>	<b>138</b>
	Marcia McKenzie, University of Melbourne, Australia & University of Saskatchewan, Canada; Christina Kwauk, Brookings Institution, USA	

# States of Emergency: Education in a Time of COVID-19

 **Will Brehm**, Associate Professor, UCL Institute of Education, UK

 w.brehm@ucl.ac.uk

 **Elaine Unterhalter**, Professor, UCL Institute of Education, UK

 e.unterhalter@ucl.ac.uk

 **Moses Oketch**, Professor, UCL Institute of Education, UK

 m.oketch@ucl.ac.uk

*It is for one reason only that we call our epoch modern: people of the West have been so captivated and impressed by their own great deeds that they found the courage to proclaim that they had created the world on their own.*  
- Peter Sloterdijk (1989/2020, p. 2)

Ideas about our own great deeds and the belief that we had created the world on our own were confronted in 2020 by a microscopic spike protein that effortlessly fused a novel coronavirus with human cells. We thought we had learned “to create nature in addition to history” and “to carry out an infinite project on a finite basis” – ideas reflected in and advanced through our education systems – but the pandemic’s exponential death rates, constant waves of infections and new mutations of the virus, which forced the world’s population and its variegated education systems and projects into various states of social distancing, lockdowns and, for some, a hysteria of denial or anxiety, showed clearly that the “bubble of modernity’s kinetic utopia has burst” (Sloterdijk, 1989/2020, p. 2, 151, 3).

Just about every idea in circulation about education was called into question: what it was for, where it took place, who was involved, and how it was experienced. Modern mass schooling was no longer the great equaliser we had believed it once was, calling into question the education projects that had been based on meritocracy and so interwoven with a need to make the future better than the present (Sandel, 2020). Our past calls for equality rang hollow when work and study from home were reserved for the privileged few who could access technology, when vaccines were hoarded by the global North, and when EdTech companies made huge fortunes providing the means to sustain some sort of educational provision but at the expense of locking millions out of vital forms of knowledge. What we thought we knew for

certain was no longer certain at all. Except, of course, capital’s ability to find new forms of exploitation and profit despite (or because of?) the pandemic. How then can we make sense of this state of emergency while it still rages around the world?

Our starting point for this *NORRAG Special Issue* has been to conceptualise the emergency not in the singular but in the multiple. Although *likely* having a zoonotic source, SARS-Cov-2 – the virus that causes the COVID-19 disease – is not only a biological and health emergency. It is also a political emergency, an economic emergency and a social emergency intertwined. Its educational dynamics and forms of emergency weave through these larger processes into what Kenway and Epstein (2021) call “the global COVID-19 conjuncture.” Read in its entirety, this *NORRAG Special Issue* highlights the ways in which these emergencies in education are interconnected.

Many theorists have framed the emergency without distilling its significance for the many formations of education. Giorgio Agamben (2020) feared the COVID-19 pandemic would create a political emergency he called a “state of exception” whereby authoritarian rule would thrive at the expense of individual sovereignty and democratic polity. David Harvey (2020, para. 11, 55) recognised an economic emergency in the “situation of an old, collapsing bourgeois society” and saw the nascent formation of a new, “highly gendered, racialized, and ethnicized” working class whose members “bear two burdens: at one and the same time, they are the workers most at risk of contracting the virus through their jobs, and of being laid off with no financial resources because of the economic retrenchment enforced by the virus.” Slavoj Žižek (2020, p. 3), meanwhile, recognized a brewing social emergency early in the pandemic where “corporeal distancing” – the most antisocial behaviour humanly possible – was essential



to fight the spread of COVID-19. Yet, he saw this as an opportunity: “it is only now, when I have to avoid many of those who are close to me, that I fully experience their presence, their importance to me.” These public intellectuals were not entirely wrong in their prognoses, although their hopes for [democratic revival](#), [economic collectivism](#) and [social reimagining](#), all with educational implications, have been far less successful and certainly not universal.

The political, economic and social dimensions of the emergency brought on by the coronavirus pandemic impacted education and international development. Schools and tertiary education institutions closed around the world, often exacerbating existing inequalities in society. As some low fee private schools closed their doors for good, students who had attended these schools, flocked en masse to mainstream schools, [adding pressure to already stretched public systems](#). Gender based violence, [although difficult to measure](#), increased for some children who could not seek protection at school. The closure of school feeding programmes brought [hunger](#) and ill health. Many people finally acknowledged that [teachers are front-line care workers](#), raising important questions of labour rights, representation and local relationships in the education sector. Some schools embraced technology to provide forms of learning for children, but these patterns mostly benefited wealthy households and wealthy countries. No computer or internet access meant no school-linked learning for many children (Hossain, 2021). Technology companies meanwhile have seen profits soar, finally realising the long sought-after goal of some who work in this business of “disrupting” the education sector (Williamson & Hogan, 2021). The economic impact of the pandemic will force some countries to cut education budgets in the short and long-term, despite policy affirmations of protection (Lennox et al., 2021). These dynamics have left the future of education, and those who work in and with the sector, in various states of emergency.

Actors at the global level, many linked with United Nations agencies, sometimes seen as making up a “global architecture of education” (for a critique, see [Hugh McLean’s response](#) to Beehary, 2021), responded to the pandemic in ways that illuminated some longstanding tensions between global organisations and domestic actors regarding the priorities of the global, the national, the local and how these are interconnected. Some of the fault lines exposed relating to knowledge formation and information in public health – and how fit for purpose the global architecture is – are also apposite for education. At the exact time as many low and middle-income countries required additional financing to education to overcome the pandemic, donor assistance through aid budgets was [projected](#) to be cut. Some donors, such as the UK’s Foreign, Commonwealth and Development Office (FCDO), reformulated their

policy priorities with key policy declarations failing to explicitly mention commitments to reduce poverty or support lifelong learning (FCDO, 2021). The structures that articulate the global education community struggled to ensure a flow of assistance to countries and people most in need. The architecture for planning and sustaining transformative change during a global emergency, such as COVID-19, and beyond requires scrutiny.

Many organisations that work on the global stage have used the pandemic to further priorities associated with the narrow view of learning metrics formulated before it hit ([see Will Smith’s presentation](#)). This can be seen most explicitly in the idea of a precisely measured form of “learning loss” caused by COVID-related school closures and/or inadequate remote learning. This argument suggests the mere presence of a child *in* school is equated with learning while absence is assumed to cause a learning loss (Kuhfeld, 2019). During the pandemic, this linear concept of learning has been linked with quantifiable losses in [lifetime earnings](#). When learning is made commensurable across systems through some standard metric, it is easy to link schooling to economic growth and then use econometric modelling to determine which systems produce the most “learning.” Learning loss is thus the latest discourse in education to reduce “complex processes [of learning] to simple numerical indicators and rankings for purposes of management and control” (Shore & Wright, 2015, p. 22; see also Gorur, 2016; Unterhalter, 2019; Piattoeva & Boden, 2020). The richness of learning and the [multiple sites](#) in which it takes place, so evident during the pandemic, is lost in these linear measures. As [Pasi Shalberg](#) wrote, “We need to let go of the myth that seat time equals learning.”

Historicising the educational discourses emerging during the pandemic is a useful way to understand some of the tensions in education and international development as a field of policy, practice, theory and empirical research. The narrative of “learning loss” is supported by many actors advocating greater use of technology and standardised testing in education (Williamson & Hogan, 2021, p. 8). The idea echoes to the discourse of a [global learning crisis](#) articulated from around 2010 (Benavot & Smith, 2020). Setting out the contours of this discourse, and some of the ideas it mobilised, is not to ignore the significant challenges of quality and equality for education systems and provision for the poorest children and countries; however, ideas that the key problem of the pandemic has been learning loss advance a longstanding priority of some development actors of creating and using [global learning metrics](#) as a way of determining which systems are providing a supposedly quality education to students. This contrasts with conceptualising quality education in broad, inclusive terms concerned not just with schooling for children, but with lifelong learning

oriented to address intersecting inequalities, injustices and supporting sustainable development (McCowan & Unterhalter, 2021). This tension threads through the Sustainable Development Goal on education (Wulff, 2020).

Many commentators have sought to make sense of the pandemic's impact on education – not least in terms of learning loss – through data and its visualisation. [Living maps](#) showed, for instance, the number of out of school children, the time in which schools were closed and where teachers were prioritised for vaccinations. In many ways, these interactive maps mirrored the real-time coronavirus maps developed for public health purposes by institutions such as [Johns Hopkins](#), [Our World In Data](#) and [Oxford University](#), which mapped cases, hospitalisations, deaths, vaccinations, and public policy responses. Not only do these real time data and data visualisations help “governing by numbers” (Rose, 1991), but also, they provide individuals with a sense of certainty and control in a time of crisis as well as an opportunity for EdTech companies to profit from the massive data being produced. Some of these processes are important for holding governments to account and living maps can be useful in highlighting whether or not poverty and other inequalities are or are not being considered. But the reliance on living maps as the main source of information on the pandemic without consideration of a wider range of data sources and processes of discussion and reflection on what the maps show, begs questions around which methods and data are being prioritised and how full or narrow a picture they can provide; whose knowledge is valued; which norms we are assuming to be universal; whether and how school data should be kept private; and how we are to understand the specificities of the national and the local. Asking questions about these issues is something scholars in the field of education and international development are good at.

For us to begin to make sense of the states of emergency in the field of education and international development laid bare by COVID-19, we must see these multiple emergencies as interwoven, each building off and reinforcing the other and connected to pre-existing histories. But can we be more explicit rather than merely recognising political, economic and social dimensions of our current predicament? In organising the analysis for this *NORRAG Special Issue*, we identified the changing formations of education associated with six interconnected sites, all of which have political, economic, and social dimensions. These sites are: Inequality, Technology, States, Progress, Affect and Nature. These six sites shape and are shaped by the modalities of education – curricular, pedagogic, organisational, associative and evaluative. The historical conditions of possibility and impossibility of education in particular locales have been exposed by the pandemic, which the articles in this *NORRAG Special Issue* make clear. These interconnected sites are ordered in the *NORRAG Special Issue* to start with areas

most often discussed during the pandemic: Inequality and Technology. The analysis then moves to areas we feel have been less discussed but are equally important to consider: States, Progress and Affect. The *NORRAG Special Issue* ends with a subsection entitled Nature. This seemingly brings us to where we began, with a focus on a biological emergency that foretells or prefigures other emergencies associated with dislocations. In this case, the section focuses on the Climate Emergency and its connection to the pandemic.

The arc of the argument across the *NORRAG Special Issue* is curated so that each sub-section presents a set of focussed discussions. A key piece starts each thematic part. The other contributions within that part refer to and engage with the arguments presented in the key piece, each starting from a particular viewpoint, experience or problem. This dialogue across pieces is intended as a dialectic, opening new spaces of thought and praxis.

Part 1 focuses on the site of Inequalities. Indeed, it has become almost a truism to say that the pandemic revealed and furthered inequalities globally, nationally and locally. Many of the pieces across the *NORRAG Special Issue*, responding to some of the wider themes, also bring up the issue of inequalities. Thus, it made sense to us as editors to start the *NORRAG Special Issue* with this important, cross-cutting site. The section starts with a key piece by Frances Stewart who outlines the unequalising effects of COVID-19 on education, drawing out how inequalities for children have been deepened because of the pre-existing inequalities with regard to the education levels of their parents. Six articles respond to and build off Stewart's piece. Across these pieces, some of the most marginalised and excluded groups are highlighted, from Indigenous communities in Peru (Johnson & Levitan), to children with disabilities in Canada (Francis et al.), to students in conflict-affected contexts (Cameron). The inequalities within education systems are also highlighted, noting some effects in relation to the private sector in Nigeria (Robinson & Hussain), equitable learning and information sharing between administrative levels in Ethiopia (Yorke et al.) and the extent of headteacher autonomy in India (Moore & Kameshwara). It becomes clear that experiences of inequality caused by this pandemic have not been equal. Some groups have suffered far more than others and some education systems have had more inequality or equality producing processes than others.

Part 2 focuses on the site of Technology, another major area often discussed in the nascent literature on COVID-19 and education. This part starts with a key piece by Ulrike Rivett, who reflects on her own experiences switching to online learning in early 2020. She questions the meaning of a university when it has no physical community. Four pieces respond to this key piece, highlighting both the positive

benefits and negative consequences technology has had on education during the pandemic. For some, technology provided the needed tools to continue education despite the disruptions created by lockdowns, social distancing and mask mandates (Moldavan; Anand & Lall). For others, technology became a new source of inequality (Câmara; Crompton et al.).

In Part 3, the focus is on States. How and to what effect has the state been reconfigured during the pandemic? In many countries where states had espoused austerity and neoliberal policies, celebrating the free-market for decades, there was a marked change in discourse, and state intervention into social and economic life was quickly adopted. The role of public goods such as health care and education became commonly discussed and central to presentations of state legitimacy. Building off these changes, Adam Habib writes in the key piece for this section, it is important to focus on the need to create institutions that support states with developing social justice post-pandemic and for the institutionalisation through education and research that gives attention to local contextualisation of any globally developed solutions. His key piece is followed by four pieces that explore the impact of COVID-19 on education in a range of states and institutional formations, including small island states (the Maldives; Muna et al.) and contested states (Kashmir; Andrabi & Kadiwal) as well as from the perspective of an international body that works with all states and aims to build back resilient, echoing parts of the 2015 Sendai Framework for Disaster Risk Reduction (Castle et al.).

Part 4 widens the focus to one of the tenets of modernity critiqued by Sloterdijk (1989/2020, p. 2): Progress. Here, Keita Takayama writes a key piece that rethinks time and our desire to make education “chunkable,” a source of governing by numbers. He reflects on the disruptions caused by the pandemic as providing accidental moments of learning, moments often missed when we focus our educational efforts on achieving some sort of linear progress. In Malaysia, Balakrishnan & Johar argue the pandemic has furthered the blurring of boundaries between public and private actors in education and the views about time they articulate. In Sierra Leone, historical lessons from the Ebola epidemic were used to overcome some of the challenges brought on by COVID-19 (Durrani et al.). COVID-19 has clearly challenged the commonplace notion of Progress, but it is unlikely to remove it entirely within educational discourses, and the idea of learning from the past or the present to think better for the future is a theme with which all three engage.

Part 5 looks at the pandemic and its impact on education from the lens of Affect. In his key piece, Irving Epstein outlines four themes found in theories of affect – intensity of encounter, meaning-making, assemblage and contingency. These, he argues, help him make sense of the disrupted

and difficult lived experiences of students and teachers brought on by COVID-19. Three pieces in this section apply one or more of the four themes Epstein outlines in different contexts, looking at freelance creative workers in London (Derrick & Harris), the impact of EdTech on student wellbeing in 8 countries (Towne) and student experiences in Japanese universities (Clark et al.). Some consider there is explanatory weight to Epstein’s analysis, while for others it presents too negative a reading of the processes of meaning-making.

Finally in Part 6, the *NORRAG Special Issue* turns to the next emergency already with us. This section is called Nature and explores the connections between, and lessons learned from the COVID-19 pandemic for the climate emergency. Jeremy Rappleye, Hikaru Komatsu and Iveta Silova argue in their key piece that the cultural practices that emphasise collective wellbeing rather than individualism were shown to be successful during the pandemic and will be essential for surviving the climate emergency. Four pieces build off and critique this argument. Pegram & Kreienkamp advocate using complexity theory to make sense of global challenges; Adams argues for the use of permaculture as a pedagogical approach for sustainable education; and Molloy Murphy calls for a shift from management ideas, which assume it is possible to master nature, to reciprocal relations of care. The section and the *NORRAG Special Issue* conclude with a piece that weaves together elements of the six sites identified into a call to rethink education in times of the climate crisis and not counterpose so sharply science and other ways of knowing, but to develop a pluralistic, multi-faceted approach attentive to the complexity of education (McKenzie & Kwauk). This ending is also a beginning for the next *NORRAG Special Issue*, “Education in Times of Climate Change” edited by Heila Lotz-Sisikta and Eureka Rosenberg.

Overall, the *NORRAG Special Issue* contains 29 chapters authored by 66 people who are affiliated with various institutions from across the world, including, universities, schools, community organisations, civil society and the private sector. The chapters deal with every phase of education from early years to postgraduate study. They focus on a wide range of actors including children, parents, teachers, administrators, creative industry workers, institutional leaders and commentators. Authors utilise a diversity of methodologies, some collecting data using innovative ways given travel restrictions and social distancing in some jurisdictions. Some deploy familiar conceptual frames, while others consider the need for new forms of theory. The work as a whole illuminates how profound the changes in education have been, some of the harshness of the effects on everyday educational life, and some of the forms reflection takes regarding what might be possible in thinking about different kinds of futures.

Read as a whole, the articles in this *NORRAG Special Issue* illuminate how the states of emergency in education and international development are varied and complex across countries and different social groups. Although it is too early to tell if people and institutions will find a way through the political, economic and social challenges wrought by the pandemic, drawing on new educational perspectives and practices the chapters in this volume offer formative reflections that suggest key discursive and material changes are being put into place. State intervention is now discussed as needed to create public value, not correct market failures; this is a major shift from neoclassical economic orthodoxies that have reigned supreme in public policy for over forty years. Teachers are now seen as care-workers, essential for communities and society; the difference with previous descriptions of “deficit” is marked. Widespread vulnerabilities, such as mental health and poverty, are openly being discussed in education, with demands for collective action and care rather than individual blame. In putting together the chapters in this *NORRAG Special Issue*, we hope they will inspire people to turn these emerging ideas into good theory for practice, new lived experiences and fair institutions, mindful not to repeat the kinetic utopianism of modernity and silence the experiences of COVID-19 in education.

### **Acknowledgement**

*As co-editors, it has been a privilege to develop this NORRAG Special Issue over the past year. The initial idea grew out of the Centre for Education and International Development's (CEID) blog series entitled [Education in the Time of COVID-19](#) started in April 2020, and was further developed through a [webinar](#) by the same name held in September 2020 and a NORRAG KIX EAP [webinar](#) held in April 2021 entitled “What has COVID-19 done to education and research?”, which featured some of the authors who have contributed to the NORRAG Special Issue. Our thanks to the many CEID colleagues who made the blog series possible over the past 18 months as well as the 63 authors in this NORRAG Special Issue who graciously responded to a range of comments and feedback preparing articles for publication. Thanks to Gemma Moss and Jenny Parkes for reviewing drafts of our introduction. Finally, we would like to thank Moira V. Faul, Anouk Pasquier Di Dio, Paul Gerhard, Emeline Brylinski, José Luís Canêlhas and the rest of the NORRAG team for their support during the commissioning and production process.*

## References

- Agamben, G. (2020). The state of exception provoked by an unmotivated emergency. *Positions Politics*.
- Beehary, G. (2021). The pathway to progress on SDG 4 requires the global education architecture to focus on foundational learning and to hold ourselves accountable for achieving it. *International Journal of Educational Development*, 82.
- Benavot, A., & Smith, W. C. (2020). Reshaping quality and equity: Global learning metrics as a ready-made solution to a manufactured crisis. In A. Wulff. (Ed.), *Grading Goal Four* (pp. 238-261). Brill.
- FCDO (2021). *Mitigating the impacts on students and staff of the disruptions to higher education institutions during the COVID19 pandemic: a rapid evidence review*. Technical report for DfE.
- Gorur, R. (2016). Seeing like PISA: A cautionary tale about the performativity of international assessments. *European Educational Research Journal*, 15(5), 598-616.
- Harvey, D. (2020). We need a collective response to the collective dilemma of Coronavirus. *Jacobin*.
- Hossain, M. (2021). Unequal experience of COVID-induced remote schooling in four developing countries. *International Journal of Educational Development*, 85.
- Kenway, J., & Epstein, D. (2021). The COVID-19 conjuncture: rearticulating the school/home/work nexus. *International Studies in Sociology of Education*.
- Kuhfeld, M. (2019, June 6). Rethinking summer slide: The more you gain, the more you lose. *KappanOnline*.
- Lennox, J., Reuge, N., Benavides, F. (2021). UNICEF's lessons learned from the education response to the COVID-19 crisis and reflections on the implications for education policy. *International Journal of Educational Development*.
- McCowan, T., & Unterhalter, E. (Eds.). (2021). *Education and International Development: An introduction*, (2nd ed.). London: Bloomsbury.
- Piattoeva, N., & Boden, R. (2020). Escaping numbers? The ambiguities of the governance of education through data. *International Studies in Sociology of Education*, 29(1-2), 1-18.
- Rose, N. (1991). Governing by numbers: Figuring out democracy. *Accounting Organizations and Society*, 16(7), 673-692.
- Sandel, M. (2020). *The Tyranny of Merit: What's become of the common good?* UK: Allen Lane.
- Shore, C., & Wright, S. (2015). Governing by numbers: Audit culture rankings and the new world order. *Social Anthropology/ Anthropologie Sociale*, 23(1), 22-28.
- Sloterdijk, P. (1989/2020). *Infinite Mobilization: Towards a Critique of Political Kinetics*, trans. Sandra Berjan. Cambridge: Polity Press.
- Unterhalter, E. (2019). *Measuring the unmeasurable in education*. London: Routledge.
- Williamson, B. & Hogan, A. (2021). *Pandemic Privatisation in Higher Education: Edtech and University Reform*. Brussels: Education International.
- Wulff, A. (Ed.). (2020). *Grading Goal Four: Tensions, threats, and opportunities in the Sustainable Development Goal on Quality Education*. Leiden: Brill Sense.
- Žižek, S. (2020). *Pandemic! COVID-19 shakes the world*. New York: OR Books.



# Part 1

## Inequalities

# Some Consequences of COVID-19 for Educational Inequalities

 **Frances Stewart**, Professor Emeritus, University of Oxford, UK

 frances.stewart@qeh.ox.ac.uk

## Summary

This review of the impact of COVID-19 on educational inequalities shows an unequalising impact within and between countries. The provision of substitute teaching in reaction to school closures was of higher quality in richer countries and among better schools, while the ability to make use of it was worse among poorer households because of limited access to internet, television and laptops and lesser parental support. The unequal educational impact of COVID-19 may have long-term effects on the prospects of children from poor countries and households.

## Keywords

Inequality  
COVID-19  
Education  
Schools  
Enrolment

Education is a particularly important dimension of inequalities since it is not only vital in itself, a central element in human flourishing, but also the means by which other critical capabilities may be attained. Most significantly, it raises incomes and improves health. Inequalities in education – in access to schools and colleges and in the quality of education at these establishments – is a major factor in producing and prolonging both vertical inequalities (among individuals) and horizontal inequalities (among groups) in employment, incomes and many aspects of health.

COVID-19 has had a dramatic impact on education. In most countries schools were shut down for six months in 2020. In March 2020, it is estimated that over 80% of children enrolled in schools worldwide were affected by lockdowns and closures. Substitute teaching was provided in a variety of forms including online interactive teaching, lessons on TV and radio, and sometimes provision of activity sheets.

While the global shut-down affected students across the income range, low-income households and low-income countries were worst affected. In general terms, the impact on inequalities within and between countries occurred because of:

1. Inequalities in the facilities needed to access substitute forms of teaching, i.e., the internet and computers, smartphones, TVs and radios.
2. Inequalities in parents' ability to support home education, which varied according to their own education, and the time they had to contribute to their children's education.
3. COVID-19 plus lockdown had a pervasive negative impact on employment and incomes, which in turn had an indirect effect on children's education. This was also unequalising because the impact on employment and incomes was itself unequal across households and groups; and because a reduction in household incomes has a bigger impact on the education of children when incomes are already low – at or near subsistence.



Though unequalising effects were pervasive, their extent varied across countries because of variations in the length of time for which schools were closed and the nature of substitute teaching and support given to students. Moreover, economic effects also varied across countries according to the length and severity of restrictions imposed on economic activities, the knock-on effects of COVID-induced economic contraction in other countries and government (and aid donors') policies to sustain incomes. In what follows I illustrate these points with some general data and some evidence from particular countries.

## Overview of global data

### School closures

COVID-19 has affected every country in the world, some much worse than others. A near universal reaction was to close schools. At the peak, at the end of March 2020, 1,471 million children (82.5% of those enrolled) were estimated to be affected. Schools were gradually opened thereafter and by May 24 2021, only 24 countries had country-wide school closures and the number of children affected had dropped to 211 million – still a sizable number.

**Table 1.** School closures during COVID-19

Date	No. of countries with country-wide school closures	No. of children affected, millions	% of children enrolled at school affected by school closures
March 31 2020	164	1,471	82.5
June 6 2020	107	919	52.5
Sept. 9 2020	40	809	46.2
Nov. 12 2020	23	224	12.8
March 29 2021	40	205	11.7
May 24 2021	24	211	12

Source: UNESCO, 2021

### Substitute teaching

After schools were shut, a variety of alternative modes of education was adopted, including interactive online teaching, use of TV or radio and sometimes the delivery of educational materials in person or by post. The worst resourced schools in poor countries provided no substitute teaching at all (Human Rights Watch, 2020).

Interactive online education – the most effective substitute for face-to-face teaching – was mainly provided by the best-resourced schools, and pupils' access to this required

high-quality connection to the internet. Internet access was limited to a minority of children in low-income countries (16.3%), while the next best mode – lessons on TV – was also confined to the minority of households who owned a TV. Just 19% of households had internet access in Sub-Saharan Africa compared with 89% in North America, and data show a similar gap in TV ownership (Table 2). In each case, children from poor households were unable to access these substitutes. Although radio access in poor countries is much greater than for TV, many of the very poor do not own a radio.

Consequently, access and quality of substitute teaching was unequally distributed both across and within countries. A study of four countries in Sub-Saharan Africa – Ethiopia, Malawi, Nigeria and Uganda – found that less than half the children had access to radio, TV or mobile learning apps and student-teacher contacts fell to 17% during the pandemic (Josephson et al., 2020). Children in Burkina Faso said that they were prevented from learning by lack of electricity (Human Rights Watch, 2020). In the Latin American and Caribbean region, it is estimated that while three-quarters of children in private schools can access distance learning, only half the children in public schools can (UNICEF, 2020a).

UNICEF estimated that for developing countries, over 70% of those not reached by distance learning were in the bottom 40% of the income distribution, while over three-quarters were located in rural areas (UNICEF, 2020b). Their analysis suggested that children from very poor households – from immigrant and Indigenous households in particular – may well not resume education after the schools reopen (UNICEF, 2020a). A Human Rights survey reported that many children in the Central African Republic, the Congo and Madagascar received no education during the lockdown period (Human Rights Watch, 2020). Girls were particularly badly affected because they feared going to male teachers' houses, and also frequently had domestic duties. A teacher from a low-income area in Morocco estimated that at most 10% of the children were participating in distance learning, largely those with educated parents (Human Rights Watch, 2020). These inequalities are not confined to poor countries. In England and Wales, a survey found that four-fifths of schools with the poorest pupils “do not have enough devices and internet access to ensure all self-isolating pupils can keep learning” (Teachfirst, 2020).

A survey of Ministries of Education in developing countries showed clear inequalities of response across countries (UNESCO et al., 2020).

- Ninety percent of high-income countries required teachers to continue to work during the closures but only 60% of middle-income countries and 39% of low-income countries.

- Teacher tracking of pupils' performance occurred in 97% of high-income countries, but in only half of low and lower middle-income countries.
- While most upper and middle-income countries helped with access to distance learning, this occurred in only 30% of low-income countries.

**Table 2.** Complementary assets for accessing substitute teaching by region

Region	% internet users, 2018	% access to electricity, total pop., 2018	% access to electricity, rural pop., 2018	% of households with TV, 2000-2003
Sub-Saharan Africa	18.7 <sup>a</sup>	47.7	31.5	22.7
South Asia	20.1	91.6	87.6	23.4
East Asia and Pacific	54.9 <sup>a</sup>	98	96.3	75 <sup>b</sup>
Arab world	63.2	89.3	79.2	85.6 <sup>c</sup>
LAC	72.4	98.3	92.8	73.8 <sup>d</sup>
European Union	81.6	100	100	94.3
N. America	88.5	100	100	98

a. 2017; b. estimate c. Mid-East and N. Africa; d. former Spanish colonies.

Source: World Bank, World Development Indicators; Nation Master.

### Parental support for home education

There are severe inequalities in parental support for home education within and across countries. A major reason for this is inequality in parents' own education. In high-income countries, almost all parents have both primary and secondary education, but there is a divide between those with tertiary education, who are best placed to support the secondary education of their children, and those without degrees. It is well established that inequality in parental education is correlated with household income inequality. In the UK, for example, in 2018 the poorest families (with children who receive free school meals) were less than half as likely to have attended university than the remainder of the population, with a much larger difference when using a

multiple index of disadvantage (UCAS, 2018). The gap would be considerably greater for the adult population as a whole, as university participation has been widening over the decades.

In low-income countries, a considerable proportion of adult females did not complete primary schooling and are hence in a very poor position to support the education of their children (Table 3). For example, in Senegal in 2017 only 13% of females over 25 had completed primary school. Very limited educational experience among parents is concentrated in the poorest households, further increasing the negative educational consequences of COVID-19 among low-income households. A number of children surveyed by Human Rights Watch reported that they found it difficult to study at home as no one in their household had had any education (Human Rights Watch, 2020). In a study in Bangladesh, half the parents interviewed said they were unable to help their children with new topics (Biswas et al., 2020), while a survey of children (11-17) in 46 countries found that 37% reported that they had no one to help them with their home schooling (Gordon and Burgess, 2020).

**Table 3.** Proportion of adult females who have completed primary education in selected developing countries

Country	Proportion of adult females (25+) with completed primary education, %	Year
Angola	32.9	2014
Bangladesh	54.5	2018
Burundi	13.8	2017
Honduras	60.2	2018
Indonesia	74.9	2018
Mozambique	36.1	2017
Nepal	17.1	2008
Niger	8.9	2012
Pakistan	37.7	2017
Rwanda	31.8	2018
Senegal	13.1	2017
Syria	33.4	2008
Tanzania	58.9	2012
Tunisia	65.8	2016

Source: World Bank, World Development Indicators.

These adverse distributional effects on education of COVID-19 arise from the direct effects of school closures and substitute teaching. However, globally an estimated 9% of primary

school-age children and 18% of children aged 6-17 were not enrolled in school at all (UNESCO data). These children would obviously not be affected by school closures.

A further important factor is the effect of the economic recession caused by lockdown on children’s learning.

### Economic consequences

The pandemic has had highly adverse economic effects throughout the world, first because of lockdowns in particular countries, and secondly through knock-on effects on markets of economic decline elsewhere. The effects were moderated in some countries by government programmes to support businesses, employment and incomes. In April 2021 the IMF estimated a fall of 3.3% in world GDP, with magnitudes varying greatly according to how each country managed the pandemic. At one extreme China’s GDP was estimated to have grown by 2.3% in 2020 while island economies did particularly badly, with estimated falls of 19% in Fiji and 32% in the Maldives. GDP in advanced economies was estimated to have fallen by 4.7%, with particularly large falls in Spain (11%) and the UK (10%). Among larger developing economies, Peru’s GDP was estimated to have fallen by 11%, Argentina and the Philippines by 10%, and India and Mexico by 8%, with a 7% fall in South Africa. Latin America and the Caribbean showed the worst regional estimates (-7.0%), with Sub-Saharan Africa’s decline much less than this at -1.9% (IMF, 2021).

The distributional impact of the economic decline depends on the nature of the lockdowns and government protective programmes. During lockdowns, the incomes of those who could continue to work from home – many in non-manual occupations – were least affected. The loss in income of those whose work was suspended depended on households’ public and private insurance schemes, and on specific government programmes adopted to protect people during the pandemic – these mostly supported those in formal sector jobs on long-term contracts. Households with assets could sustain their consumption by drawing on these assets. Workers in the informal sector and casual workers tended to suffer more because they lacked insurance and were often not covered by compensation from government support programmes.

It is not possible to generalise about the distributional impact of the economic recession because so much depends on the nature of any lockdown and government compensatory policies, although it seems likely that the effects were unequalising in most countries (e.g., Chetty et al., 2020). In low-income countries many people were pushed below the poverty line (IMF, 2021). In January 2021, the World Bank estimated that an additional 119 to 124 million people were pushed into extreme poverty in 2020 (Lakner et al., 2021).

A study of four African countries, found that 77% of the population were in households that lost income due to the pandemic. About a quarter of households found it difficult to access sufficient medicines and food due to loss in income and these were borne disproportionately “by households that were already impoverished prior to the pandemic” (Josephson et al., 2020, p. 8).

Increasing poverty has adverse implications for education besides its effects on general deprivations. Deterioration in the nutrition and health of children makes it more difficult for them to learn, while older children (especially girls) may be required to look after younger siblings who are not at school. Some children sought paid work to supplement family income. The Human Rights Watch (2020) survey reported that children in Sub-Saharan Africa were fishing and selling fish or working in artisanal mines and in agricultural activities. Teachers feared they would never resume their studies.

### A summary of effects

Putting this evidence together, COVID-19 has had unequalising effects within countries and between them. This conclusion is endorsed by Human Rights Watch (2020, p. 1), which, after conducting interviews in nine African countries, concluded: “The school closures caused by the pandemic exacerbated previously existing inequalities, and .... children who were most at risk of being excluded from a quality education have been most affected”.

Regional inequalities in educational impact are illustrated in Table 4, drawn from a survey of children and caregivers in 46 countries.

**Table 4.** Regional inequalities in substitute teaching during COVID-19

Region	No one to help at home, %	No contact with teachers, %	Contact with teachers once a week or more
N. America	12	20	46
Latin America and Caribbean	25	24	36
Asia	33	58	15
W. Africa	40	68	10
E. and S. Africa	43	81	10

Source: Gordon and Burgess 2020.

Country reports show the unequalising impact within countries. Studies of the impact of school closures in developed countries show higher loss of learning among pupils from low-income households:

- In the Netherlands reduction in test-scores were up to 55% larger among children from less educated homes (Engzell et al., 2020).
- In Flemish schools in Belgium, the fall in scores was higher the greater the proportion of disadvantaged pupils in the school (Maldonado & De Witte, 2020).
- In the US, the fall in completed math lessons on the ‘Zearn’ platform was over 70% for pupils in the bottom quartile of the income distribution; around 60% for those in the middle of the income distribution and 30% for those in the top quartile (Bruyckere, 2020).
- In the UK, in state secondary schools, 64% of children from the richest quintile were offered active help with schoolwork compared with 47% of the poorest quintile. 82% of private school pupils received active help. Children from the better off families were spending 30% more time on schoolwork than those in the bottom quintile (Andrew et al., 2020).

There are similar findings for developing countries. For example, a study in Ecuador showed unequal effects of substitute teaching on both vertical and horizontal types of inequality (Table 5).

**Table 5.** Education during the COVID-19 shutdown in Ecuador

	Computer and internet access, %	More than 4 hours a week spent on schoolwork, %	No schoolwork, %
Highest wealth quartile	75	45	9
Lowest wealth quartile	39	40	19
Mestizo/ white	62	45	13
Indigenous and other	44	40	19

Source: Asanov et al., 2021.

In Nigeria, likewise, the closure of schools worsened both vertical and horizontal educational inequality with children with higher income and more educated parents having better internet access, and similarly, those living in the south of Nigeria having much better access than those living in the north. The study concluded that: “Children from low-income,

less educated households are severely disadvantaged as remote learning is hindered by the unavailability of structures and resources to aid homeschooling” (Briggs, 2020, p. 50).


## Conclusion

COVID-19 had a negative impact on education across the world. The negative impact was unequalising across and within countries. Although the evidence remains piecemeal, this was true within countries for both horizontal inequalities (across groups) and vertical inequality (among individuals) as well as inequalities between countries. The substitute teaching provided and support for home education from teachers and parents was unequalising. The rise in extreme poverty undermined the learning of the poorest. As countries recover from COVID-19 many of these adverse effects will be reversed, but recovery is likely to be uneven with more developed countries having the resources to support more rapid recovery while poorer countries may suffer from large debts incurred, impeding quick recovery. Children from richer countries and higher-income households are likely to receive more support from governments, schools and households to help them catch up on gaps in education caused by the pandemic. For many children from poor households, however, the educational impact of COVID-19 will have permanent adverse effects, blighting their economic prospects and probably their health. This is likely to accentuate inequality generally and have knock-on effects for the next generation.


## References

- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., . . . Sevilla, A. (2020). *Learning during the lockdown: real-time data on children's experiences during home learning*. Institute of Fiscal Studies. London.
- Asanov, I., Flore, F., Meusmann, M., & Schulte, M. (2021). Remote learning, time-use and mental health of Ecuadorian. *World Development*, 138.
- Biswas, K., Asaduzzaman, T. M., Evans, D. K., Fehrler, S., Ramachandran, D., & Sabarwal, S. (2020). *TV-Based Learning in Bangladesh: Is it Reaching Students?* World Bank.
- Briggs, D. C. (2020). COVID-19 The effect of lockdown on children's remote learning experience – parents perspective. *Journal of Education, Society and Behavioral Science*, 33(9), 42-52.
- Bruyckere, P. d. (2020). From experience to learning. Some really bad news about learning during this pandemic based on actual data from three different countries. The Economy of Meaning.
- Chetty, R., Friedman, J. N., Hendren, N., Stepner, M., & Team, T. O. I. (2020). *The economic impact of COVID-19. Evidence from a new public database built using private sector data*. NBER Working Paper 27431, New York.
- Engzell, P., Frey, A., & Verhagen, M. (2020). Learning inequality during the COVID-19 pandemic. *SocArXiv paper*.
- Gordon, M., & Burgess, M. (2020). The hidden impact of COVID-19 on children's education. Save the Children.
- Human Rights Watch. (2020). Impact of COVID-19 on children's education in Africa.
- IMF. (2021 April). *World Economic Outlook*. Washington DC: International Monetary Fund.
- Josephson, A., Kilic, T., & Michler, J. D. (2020). *Socioeconomic Impacts of COVID-19 in Four African Countries*. Washington DC: World Bank.
- Lakner, C., Yonzan, N., Mahler, G. D., Castaneda Aguilar, R. A., & Wu, H. (2021). Updated estimates of the impact of COVID-19 on global poverty: Looking back at 2020 and the outlook for 2021. World Bank blog.
- Maldonado, J. E., & De Witte, K. (2020). *The effect of school closures on standardised student test outcomes*. Discussion Paper Series Dps20.1. Department of Economics, LeuvenKu
- Teachfirst. (2020 November). 84% of schools with the poorest children lack devices to ensure their pupils can study at home if self-isolating. *Teach first press release*.
- UCAS. (2018). Multiple equality measures (MEM) report. UCAS.
- UNESCO. (2021). *Dashboards on the global monitoring of school closures caused by the COVID-19 pandemic*. <http://covid19.uis.unesco.org/global-monitoring-school-closures-covid19/>
- UNESCO, UNICEF, & WorldBank. (2020). What we have learnt? Overview of findings from a survey of Ministries of Education on national responses to COVID19.
- UNICEF. (2020a). *Education on hold: A generation of children in Latin America and the Caribbean are missing out on schooling because of COVID-19*. Retrieved from <https://reliefweb.int/report/mexico/education-hold-generation-children-latin-america-and-caribbean-are-missing-out>.
- UNICEF. (2020b). *Are children able to continue learning during school closures?* <https://data.unicef.org/resources/remote-learning-reachability-factsheet/>

# Learning on the Mountain: COVID-19, Educational Inequities, and Community-Informed Policy in Peru

 **Kayla M. Johnson**, Assistant Professor, Department of Educational Policy Studies and Evaluation, University of Kentucky, USA

 Kayla.johnson@uky.edu

 **Joseph Levitan**, Assistant Professor, Department of Integrated Studies in Education, McGill University, Canada

 Joseph.levitan@mcgill.ca

## Summary

The article shares insights from Indigenous community partners and draws on the authors' 17 years of work experience in rural Andean Peru. We illustrate how COVID-19 has deepened inequities facing rural Indigenous communities and how some responded. Future policy required to adequately address inequities is outlined.

## Keywords

COVID-19  
Peru  
Education  
Indigenous  
Rural

Rural Indigenous<sup>1</sup> communities in Peru have long lacked access to quality educational opportunities (e.g., Levitan, 2015; Cortina, 2017; Levitan & Post, 2017; Sumida Huaman, 2017; Valdiviezo & Lopez, 2018; Kvietok Dueñas, 2019; Levitan & Johnson, 2020; Johnson & Levitan, 2020; Johnson & Levitan, 2021). In March 2020, the COVID-19 pandemic forced the closure of Peru's school buildings for the full 2020 academic year (AY) and restricted mobility in the country. These and other mandatory social distancing measures greatly exacerbated pre-existing inequities and created new ones. Rural students in the Andes and Amazon – the vast majority of whom are members of Indigenous communities – faced greater obstacles to continuing formal education than students in more urban and affluent parts of the country. The necessary closure of schools in response to COVID-19 and policies implemented by educational authorities had learning-related consequences.

The information and analysis we present draws on our continuing work in the Peruvian Andes (including time in-country during the pandemic) and accounts from Indigenous collaborators. We address: how policy responses to COVID-19 exacerbated educational inequities in rural communities; new challenges created by COVID-19; and how in seeking to address challenges (where possible) communities enacted their values and mobilized resources. The voices and realities of rural Indigenous community members are often excluded from national and international policy conversations, so we offer this collaborative contribution to identify current crisis points and levers for community-informed change and education policy initiatives that respond to COVID-19-related challenges.

We began working in the Peruvian Andes over a decade ago. Then and now, we work collaboratively with communities, schools, non-profit organizations and national policy thinktanks to address systemic issues of inequity in education that rural Indigenous communities face, such as: a lack of nearby schools; fewer (or no) quality learning materials; the absence of qualified school staff and a dearth of curricula that honor the cultures, values and identities of Indigenous youth. These inequities contribute to fewer and lower quality educational opportunities and lower learning outcomes for many rural Indigenous students as compared to non-Indigenous students (e.g., Levitan & Post, 2017). We find that Indigenous community members enact profound resilience in the face of inequities. To more comprehensively understand how the COVID-19 pandemic and the resulting policy responses have affected educational experiences in rural Indigenous communities in Peru, it is necessary to illuminate both challenges and community responses.

### Peru's educational policy responses to COVID-19

When the pandemic shuttered schools across the country, three policies affected educational opportunities in rural communities:

1. The Ministry of Education (MINEDU) developed “Aprendo en Casa” (I learn at home), an expanded remote learning version of Peru’s national curriculum. Available via internet, television and radio, Aprendo en Casa was designed to keep learning accessible to as many students as possible.
2. Regional educational authorities asked teachers to teach remotely and gave them full instructional autonomy. This afforded teachers flexibility to adapt to emerging challenges, but left teachers with little structure or guidance in how they could or should conduct teaching.
3. Initially, students were required to successfully complete a requisite number of worksheets to qualify for grade level promotion in 2021. However, this policy was later amended to allow for promotion regardless of completed worksheets.

These policies reflect the limited options available to educational authorities in Peru during the COVID-19 lockdown. When enacted in the context of pre-existing inequities and emerging COVID-19 related challenges, they deepened inequities for rural Indigenous students.

### Policy consequences in rural Indigenous communities

As Stewart (this issue) illustrates, children from lower/middle income countries like Peru – and from marginalized groups within those countries, such as rural Indigenous communities – face greater inequities when accessing and persisting

in education. COVID-19 exacerbated these pre-existing inequities. We categorize these inequities into four domains with examples of the challenges raised and how communities responded.

#### Inadequate infrastructure & access to technology

Many rural communities lack the infrastructure and technologies needed to access remote learning. In the highlands above the Urubamba Valley (a relatively affluent and urbanized area in the Andes), most rural communities do not receive reliable Internet, cellular, radio or TV signals. In 2019, only 41.5% of rural households had internet access (Statista, 2021). According to the World Bank (2021), 100% of households are within range of a cellular signal, but data signals in rural areas remain weak, unreliable or non-existent. Even when reliable signals are available, many rural students do not have devices to access them – only 44.1% of rural households own a smartphone (OSIPTEL, 2020).

Teachers leveraged familiar technologies, such as cellular phones and radio, but with limited connectivity for teachers and students, instruction was restricted to messaging via free apps (e.g., WhatsApp and Facebook Messenger) and sending low-resolution PDF worksheets. To get enough signal to receive messages, students had to walk several hours down the mountain or further up the mountain. Many students called Aprendo en Casa, “Aprendo en Cerro” (I learn on the mountain). Students would arrive tired, with a lunch that had turned cold on the journey, if they were able to pack one at all, and would sit in the sun or rain for hours to access their lessons and homework. Without computers or printers, students had to copy worksheets by hand to complete them. Students without smartphones or radios crowded around the devices of peers.

Some parents (often mothers) defied national lockdown measures and would travel to the nearest town to print the week’s homework for students in their community. Some travelled weekly to more remote communities to drop off and pick up homework. Still, students could not reliably access materials each day, nor regularly upload their completed work, so homework often piled up – much of it never to be completed.

#### Insufficient instructional support

Students in rural communities, and the teachers who served them, received insufficient instructional support. Those who teach in rural communities often live in larger towns. When schools closed and mobility was restricted, many communities had no qualified teachers to support students. Some teachers did travel to rural communities to offer supplementary tutoring, again defying lockdown measures. Still, little formal instruction occurred. Teachers worked fixed hours and were only available to help students at certain times throughout the day. This left students with limited options when they had questions or encountered problems. Those who had Internet access



sought answers online; others' questions went unanswered. Parents provided learning support when they were able, but as older generations in rural communities have little experience with technology and little formal education (with many illiterate in both Spanish and a home language), their ability to support their children's learning was limited. Formally educated older siblings – often with their own schoolwork to do – became the most reliable source of learning support.

Teachers lacked the support they needed to teach effectively from a distance. Teachers relied on basic technologies they already had and knew, though many had little to no experience with technology. Most teachers did not have any professional training or experience with remote pedagogy. Online professional development opportunities, while available, were inaccessible to teachers in rural areas.

### **Competing responsibilities and values**

For rural Indigenous students, being “at home” comes with important expectations, roles and responsibilities. Remote learning – where the home becomes the primary site of formal schooling – conflicted with the household roles and responsibilities that rural Indigenous children (girls in particular) assume, such as herding, farming, household chores and childcare. The nationwide lockdown also shuttered or severely limited many industries that sustain rural communities, such as local markets. Communities relied on subsistence farming, supported by increased youth labor. During AY 2020, boys and girls spent significantly more time tending to their families' farmland than in prior years. Fortunately, performing important cultural practices like farming and being with elders helps to sustain community knowledge. Nonetheless, these added responsibilities decreased the time students could spend on their formal studies, especially as compared to urban youth with different familial expectations.

### **Problematic curriculum**

Aprendo en Casa, like the national curriculum on which it is based, continues to lack meaningful contextualization of Peru's cultural diversity, and reflects the historical coloniality of Peru's educational system and offerings. Peru recognizes Intercultural Bilingual Education as a right (Kvietok Dueñas, 2019), but the sudden shift to remote learning further limited students' access to culturally grounded learning materials and opportunities. When students are unable to see themselves, their communities, and their values in the curriculum, then both engagement and outcomes suffer.

### **Community-informed policy responses for post-COVID-19 learning and revitalization**

Parents and educators consider AY 2020 a “lost year” for rural Indigenous students in Peru. These students now face an even steeper climb up the educational mountain than before. As

Stewart (this issue) posits, the deepening inequities resulting from COVID-19 mean that children from Indigenous families are at increased risk of not returning to formal schooling after the pandemic. Those who do return will encounter under-resourced schools, inadequately supported teachers and curricula and learning expectations that are poorly aligned with their realities and cultural values. COVID-19 will put rural youth further “behind” their urban peers. Increased attention must be placed on addressing inequities – pre-existing and emerging – that rural Indigenous youth face. We offer three recommendations for community-informed policies that more adequately centre rural Indigenous communities' values, needs and goals.

#### **1. Invest in 21st century infrastructure, resources and training for rural Indigenous communities.**

Largely due to the lack of high-speed, reliable Internet and devices needed to access remote learning, Aprendo en Casa did not translate to learning at home for rural Indigenous students. MINEDU recently invested in Wi-Fi- and 3G-capable tablets for nearly every student in Peru. However, with mobility still restricted, distributing these tablets has proven difficult, and without reliable Internet or cellular signals, the tablets will do little to address students' needs. Teachers and parents in these communities are ill-prepared to support students appropriately and effectively using these technologies. Future policy responses should address basic infrastructure needs – electricity, Internet, internet-capable devices – and incorporate extensive training in using and maintaining learning technology as part of infrastructure improvements.

#### **2. Formally recognize the educational value of in-community, non-formal learning.**

Assessments reflect values. By only assessing formal learning – that is, what students are learning “in school” – policy makers communicate to Indigenous communities that the knowledge they cultivate “at home” has no educational value. The devaluing of non-formal learning has perpetuated this year's “learning loss” narrative in Peru. Undoubtedly, Indigenous students learned a lot while in their communities this year. Post-COVID recovery is an opportunity to reconsider what education is and what “counts” as learning. Formally recognizing learning that happens at home – not only in the number of worksheets that students complete – might contribute to greater access to educational and employment opportunities for rural Indigenous students, and greater self-efficacy and wellbeing. An intensive re-focus on formal learning in AY 2021 would be a missed opportunity and do more harm than good.

#### **3. Leverage in-community time as a curriculum**

**development opportunity.** Peru's national curriculum, even with Intercultural Bilingual Education development over the past two decades, requires a greater contextualization



to the cultures and values of rural Indigenous peoples. With Indigenous children spending more time in their communities – tending to farmland, working alongside elders – they are in a unique position to learn important knowledge. Implementing processes for gathering and sharing these knowledges can provide the foundations for culturally grounded curricular offerings, better aligning education with the social, cultural and economic realities of rural areas, and leading to improved student engagement, a faster, more efficient recovery and a legacy of Indigenous community resilience.

## Conclusion

Educational policy research is unequivocal that when students have access to quality, basic infrastructure and learning resources, well-prepared teachers and curricula that value their cultural identities, they are more likely to persist, graduate, find valuable work and live a healthy life. Implementing community-informed policy is not only good for rural Indigenous students and communities, but also for Peru.

## References

Cortina, R. (2017). How to improve quality education for Indigenous children in Latin America. In R. Cortina (Ed.), *Indigenous education policy, equity, and intercultural understanding in Latin America*. Palgrave Macmillan.

Johnson, K. M., & Levitan, J. (2021). Exploring the identities and experiences of rural first-generation Indigenous students using photo-cued interviewing. *SAGE Research Methods Cases*.

Johnson, K. M., & Levitan, J. (2020). Identity, culture, and iterative curriculum development: Collaborating with girls from Indigenous communities to improve education. *International Journal of Student Voice*, 7.

Kvietok Dueñas, F. J. (2019). Youth bilingualism, identity and Quechua language planning and policy in the urban Peruvian Andes. *Publicly Accessible Penn Dissertations*. 3293.

Levitan, J. (2015). More than access: Overcoming barriers to girls' secondary education in the Peruvian Andes. In S. Baily & S. Stacki (Eds.), *Educating adolescent girls around the globe: Challenges and implications*. Routledge Research.

Levitan, J., & Johnson, K. M. (2020). Salir adelante: Collaboratively developing culturally-grounded curriculum with marginalized communities. *American Journal of Education*, 126(2), 195-230.

Levitan, J., & Post, D. (2017). Indigenous student outcomes and education policies in Peru and Ecuador. In R. Cortina (Ed.), *Indigenous education policy, equity, and intercultural understanding in Latin America*. Palgrave Macmillan.

Organismo Supervisor de Inversión Privada en Telecomunicaciones (OSIPTEL). (2020). Análisis del estado de la demanda de los servicios públicos de telecomunicaciones: 2015-2019. *Documento de Trabajo N° 47*.

Statista. (2021). Share of households with internet access in Peru in 2018 and 2019, by urbanity. [Statista](#).

Sumida Huaman, E. (2017). Indigenous Rights Education (IRE): Indigenous Knowledge Systems and transformative human rights in the Peruvian Andes. *International Journal of Human Rights Education*, 1(1).

World Bank. (2021). Mobile network coverage, % pop. Peru. [World Bank](#).

Valdiviezo, L. A., & Lopez, D. (2018). The education and development of Peruvian youth: Opportunities, challenges, and possibilities. In *Adolescent Psychology in Today's World: Global perspectives on risk, relationships, and development. Volume 1: The Americas* (Vol.1, pp. 240 – 258).

## Endnotes


1. We use "Indigenous" as an ethnolinguistic demographic signifier for members of self-recognized communities that speak an Indigenous language (e.g., Quechua, Aymara, Asháninka) or individuals who have direct family members/ancestors who do.

## Acknowledgement

Alex Alvares, PhD., Gloria Bravo, Yessenia Loayza and Nohemi Orihuela shared experiences and insights, contributing information and ideas for this article. Any errors, omissions or mistakes are those of the authors.

# Can Headteacher Autonomy Mitigate the Effects of COVID-19 School Closures in India?

 **Rhiannon Moore**, PhD student, School of Education, University of Bristol, UK

 [rm17714@bristol.ac.uk](mailto:rm17714@bristol.ac.uk)

 **Kalyan Kumar Kameshwara**, PhD student, Department of Education, University of Bath, UK

 [K.K.Kameshwara@bath.ac.uk](mailto:K.K.Kameshwara@bath.ac.uk)

## Summary

This paper uses data from a study of schools in India to examine how headteachers reacted to the COVID-19 school closures. We consider how differences in the decision-making autonomy of school leaders affect their confidence and coping strategies and explore how this may help mitigate the otherwise unequalising effects of the pandemic.

## Keywords

Education  
Autonomy  
School Leadership  
Public Schools  
India

In March 2020, the Indian government announced a strict lockdown in response to the COVID-19 pandemic, closing schools and other educational institutions for India's 320 million students (Sahni, 2020). Education at all levels remained suspended for much or all of 2020. In Andhra Pradesh (AP) and Telangana, schools remained closed until November 2020 (AP) and January 2021 (Telangana). Thus, children were out of the classroom for much of the 2020-2021 academic year, raising concerns about lack of learning (ASER, 2021) and growing inequalities on the basis of access to technology and parental support (Stewart, this issue).

This paper considers how schools in these two southern Indian states responded to this prolonged period of closure, and the extent to which headteachers exercised autonomy in decision-making to mitigate the effects on their students. It does so using telephone survey data collected from headteachers in July 2020, in combination with an existing dataset from the same schools in 2016-17. Both datasets were collected by '[Young Lives](#)', a longitudinal study of childhood poverty conducted in four countries. Analysis of these data are used to address the following questions:

1. To what extent does autonomy influence headteachers' confidence in their ability to deal with the effect of school closures? Is this effect moderated by school management type?
2. How is headteacher autonomy associated with schools' strategies to cope with the closures and subsequent return to school? Is this moderated by school management type?

Questions of autonomy are relevant to consider in the context of the pandemic, where school leaders have been placed in an unfamiliar and uncertain position regarding

school closures and reopenings. Schütz et al. (2008) suggest that, internationally, increased autonomy within schools can improve equality of opportunity for children who might otherwise be disadvantaged because of socio-economic status. In the context of AP and Telangana, existing research indicates educational outcomes were highly unequal prior to the pandemic (Rolleston & James, 2015); with a heterogeneous education system characterised by multiple types of school management and an urban/rural divide (Singh A., 2015; ASER, 2018; Rolleston & Moore, 2018). As in many parts of India, government schools have been found to have lower learning outcomes than private schools (Kingdon, 2017; Rossiter et al., 2018), although once variation in student background and prior attainment are taken into account, such gaps are often less apparent (Muralidharan & Sundararaman, 2015; Singh A., 2015).

In addition, there is evidence of “student sorting” into different school types: Young Lives data from 2016-17 reveals that almost all (97%) students attending Tribal Social Welfare schools were from the most deprived caste groups (Scheduled Tribes and Scheduled Castes), compared to just eight percent in Private Unaided schools. Intake also differs by other background characteristics: 22% of State Government students and 26% of Tribal Social Welfare students have two parents who are illiterate; while for Private Unaided and Aided schools this figure is four and eight percent respectively (Moore et al., 2017). Table 1 details the school types covered by the Young Lives data.

**Table 1.** School types included in Young Lives’ data

School type	Description (Aggarwal & Thakur, 2003)
State Government	Managed by state government; wholly state-funded. No tuition fees.
Tribal Social Welfare	Residential schooling for tribal / minority children. Managed by state government. No tuition fees.
Private Unaided	Managed by a trust, private organisation or individual; receive no funding from government. Charge tuition fees.
Private Aided	Managed by a trust, private organisation or individual; up to 95% of finances comes from government. May charge tuition fees.

Evidence from India and elsewhere suggests that variation in headteachers’ decision-making autonomy may help explain some of the differences in learning outcomes between school types (Patrinos et al., 2009; Kingdon, 2017). In this paper, we explore the extent to which greater autonomy for headteachers offers other benefits in the context of the COVID-19 pandemic. We consider whether higher levels of autonomy may enable headteachers in AP and Telangana to mitigate some effects of the school closures on their students, thus potentially helping to address the predicted rise in educational inequality caused by the pandemic.

## Data and methods

Two linked datasets are used: a school survey collected from 205 lower secondary schools in twenty mandals (sub-district regions) across AP and Telangana in 2016-17 (Moore et al., 2017); and a telephone survey conducted in July 2020 with 183 headteachers from the same sample of schools. Both datasets were collected by the [Young Lives study](#). Linking the two surveys allows information collected on school characteristics (including headteacher autonomy) in 2017 to be used to examine what has happened in schools during the COVID-19 school closures.

Regression analysis is used to examine the association between headteacher autonomy in decision making and (1) confidence levels and (2) coping strategies during the pandemic. Autonomy is estimated using 1-parameter IRT from responses to six dichotomous items on decision making within the school (Table 2).

**Table 2.** Items in headteacher autonomy measure

Item	Does headteacher have responsibility for...
1	Hiring teachers
2	Firing teachers
3	Establishing teachers’ salaries
4	Determining teachers’ salary increases
5	Creating the school budget
6	Deciding where the budget is spent

Similarly, headteachers’ coping strategies are estimated using 1-parameter IRT from responses to five dichotomous items (Table 3).

**Table 3.** School strategies for supporting a return to school

Item	Does the school plan to...
1	Make up for lost learning during school closures
2	Teach at weekends to catch up on missed learning
3	Teach during school holidays to catch up on missed learning
4	Add more hours to the school day to catch up on missed learning
5	Offer extra tuition for pupils most affected by the school closures

Headteacher confidence in their ability to deal with the effects of the school closures is estimated using principal components analysis from a three-item scale (Table 4).

**Table 4.** Items within the confidence scale

Item	Statement	Response options
1	Confidence that school can support student wellbeing during the closures	(1) Not confident at all (2) Somewhat confident (3) Very confident
2	Confidence that school can support students' learning during the school closures	
3	Confidence that students can catch up on learning lost due to school closures	

All three constructed variables (autonomy, confidence, strategies) are standardised to have a mean of 0 and a standard deviation of 1.

Within the regression analysis, we consider the effect of autonomy alone and the interaction between autonomy and school management type. This reflects the possibility that autonomy may have a different association with headteacher confidence and strategies depending on school type. We include controls for other school-level characteristics: average student maths and English attainment; average student wealth; school location and headteacher gender. Sampling weights have been used to support generalisability

of results to all schools within the twenty sample mandals; while standard errors have been clustered at the district level to increase estimate reliability.

## Findings

Table 5 presents the full regression output, with key findings from these analyses discussed below.

**Table 5.** OLS Estimates

Model outcome variable	Confidence (1)	Strategy (2)
Autonomy	-0.14*	0
	(0.07)	(0.04)
<b>School type (Reference Category = Private Aided)</b>		
Private Unaided	-0.66*	-0.47
	(0.34)	(0.45)
State Govt	-0.54***	-0.13
	(0.19)	(0.48)
TSW	-0.62**	0.28
	(0.25)	(0.43)
<b>School type X autonomy (Reference Category = Private Aided x Autonomy)</b>		
Private Unaided x Autonomy	0.17**	-0.18
	(0.08)	(0.13)
State Govt x Autonomy	0.46***	0.16
	(0.14)	(0.22)
TSW x Autonomy	-0.13	0.31***
	(0.21)	(0.09)
<b>Clusters</b>	<b>20</b>	<b>20</b>
<b>Schools</b>	<b>179</b>	<b>182</b>

Statistical significance denoted by: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1.

Standard errors clustered by locations (districts) are shown in parentheses.

Note: In addition to the model coefficients presented here, both model specifications also include the locality of school (urban/rural), school performance, average wealth index of students studying in the respective schools and the headteacher's gender.

### Responding to the school closures: headteacher confidence and coping strategies

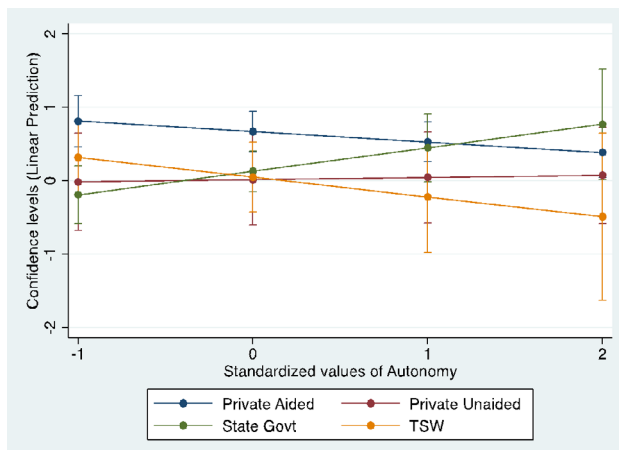
Headteacher confidence varies significantly by school management type. Headteachers in Tribal Social Welfare schools have the lowest confidence in their ability to support students during the pandemic, potentially because the more disadvantaged nature of their students makes support more challenging. Private Unaided headteachers also have lower confidence, while those employed within State Government schools have relatively high confidence in comparison to Private Aided (the base category).

Tribal Social Welfare headteachers are found to have a greater range of strategies through which to support their students in a return to school. This may relate in part to their largely residential nature, which potentially allows more flexibility in teacher and student time regarding regularly scheduled lessons. Private Unaided headteachers have the fewest coping strategies, although the difference here is not statistically significant.

### Supporting decision-making: interactions between autonomy and school type

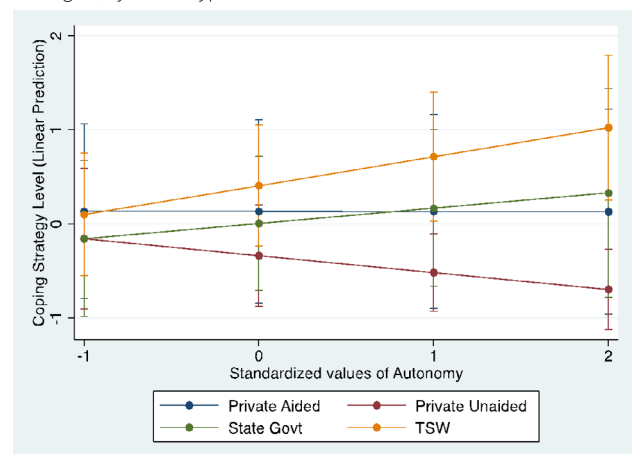
Investigating the influence of autonomy on confidence, strategies, and how this differs by school type, in State Government schools a strong positive association is found between autonomy and headteacher confidence. In this school type, a one standard deviation (SD) increase in autonomy is associated with confidence which is 0.46 SDs higher in comparison to Private Aided schools and 0.29 SDs higher in comparison to Private Unaided schools. This indicates that increasing headteacher autonomy in State Government schools is associated with greater confidence in ability to support students through the pandemic, as shown in Figure 1. For other school types, the relationship is weaker, or is not significant.

**Figure 1.** Association between headteacher autonomy and confidence, by school type



Higher autonomy has a large and significantly positive effect on headteachers' coping strategies in Tribal Social Welfare schools, and a smaller positive effect in State Government schools. For Tribal Social Welfare headteachers, a 1 SD increase in autonomy is associated with a rise of 0.31 SDs and 0.49 SDs in coping strategies compared to Private Aided and Private Unaided schools respectively. This suggests that, in these publicly funded school types, increased autonomy enables school leaders to develop better strategies to support students, while in Private Aided, and particularly Unaided schools, the association is negative or non-significant (see Figure 2).

**Figure 2.** Association between headteacher autonomy and coping strategies, by school type



### Discussion

Stewart (this issue) describes how “[the] negative impact [of COVID-19] was unequalising across and within countries.” Our analysis suggests that increasing headteacher autonomy may offer a potential means to mitigate this in AP and Telangana, supporting existing evidence that increasing school autonomy can help improve equality of educational opportunities (Schütz et al., 2008). An increase in decision making autonomy for headteachers in State Government schools is found to give them greater confidence in their ability to provide support during the pandemic and better coping strategies, allowing them to make decisions which are right for their students. Similarly, an increase in autonomy in Tribal Social Welfare schools is associated with a rise in coping strategies to support an equitable return to the classroom. With considerable evidence that these types of school are those most likely to be attended by girls, poorer children, those with less educated parents and from disadvantaged social groups (Härmä, 2011; Singh R. & Bangay, 2014), this is an important finding for equity. In comparison, in Private Unaided and Aided schools (typically attended by more advantaged students), an increase in headteacher autonomy has either no effect or a negative effect on headteacher confidence and strategies for return.

As Roy (2020) writes, “[historically], pandemics have forced humans to break with the past and imagine their world anew”. Our analysis suggests one way through which this could happen in AP and Telangana as schools begin to re-open. The inequalities which existed in education in India even before the pandemic are well-documented (Alcott & Rose, 2017; ASER, 2017), while international evidence confirms that the worst-off have suffered most during the school closures (Stewart, this issue) and are anticipated to find it hardest to “catch up” (Outhred et al., 2020). Yet our findings indicate that increasing the decision-making autonomy of headteachers working in publicly funded (State Government and Tribal Social Welfare) schools may offer a

low-cost way in which to support the most disadvantaged learners and potentially help to close these widening gaps. Prior to the pandemic, school leaders in these school types had the lowest levels of autonomy, with much decision making centralised at the state level (Kameshwara et al., 2019). We suggest that allowing headteachers within government-funded schools greater control over decision making would give them greater ability to mitigate the effects of the pandemic on students, enabling them to better utilise their knowledge of the context in which they work and offering a chance for a more equitable education system in the years ahead.

## References


- Aggarwal, Y. P., & Thakur, R. S. (2003). Concepts and terms in educational planning. A guidebook. In *District Information System for Education, NUEPA*. Retrieved from [www.dise.in](http://www.dise.in)
- Alcott, B., & Rose, P. (2017). Learning in India's primary schools: How do disparities widen across the grades? *International Journal of Educational Development*, 56(May), 42–51.
- ASER. (2017). *Annual Status of Education Report (Rural) 2016*. New Delhi: ASER Centre.
- ASER. (2018). *Beyond Basics: Annual Status of Education Report (Rural) 2017*. New Delhi: ASER Centre.
- ASER. (2021). *Annual Status of Education Report (Rural) 2020 Wave I*. New Delhi: ASER Centre.
- Härmä, J. (2011). Low cost private schooling in India: Is it pro poor and equitable? *International Journal of Educational Development*, 31(4), 350–356.
- Kameshwara, K. K., Shields, R., & Sandoval-Hernández, A. (2019). *Effects of decentralisation in school management on student learning: empirical analysis of young lives survey data using multi-level modelling*. Comparative and International Education Society (CIES) Conference. San Francisco.
- Kingdon, G. G. (2017). *The private schooling phenomenon in India: a review*. Bonn.
- Moore, R., Azubuike, O. B., Reddy, P. P., Rolleston, C., & Singh, R. (2017). *Young Lives School Survey, 2016-17: Evidence from India*. Oxford: Young Lives.
- Muralidharan, K., & Sundararaman, V. (2015). The aggregate effect of school choice: Evidence from a two-stage experiment in India. *The Quarterly Journal of Economics*, 130(3), 1011–1066. <https://doi.org/10.1093/qje/qjv013>.
- Outhred, R., Marshall, L., & Moore, R. (2020). *Interrupted education in India (Andhra Pradesh and Telangana): Support for students during the COVID-19 school closures*. <https://www.younglives.org.uk/sites/www.younglives.org.uk/files/YOL-%20India-%20COVID19%20survey%20head%20teachers.pdf>
- Patrinos, H. A., Barrera-Orsorio, F., & Fasih, T. (2009). *Decentralized decision-making in schools the theory and evidence on school-based management*. New York: World Bank.
- Rolleston, C., & James, Z. (2015). After access: divergent learning profiles in Vietnam and India. *Prospects: Quarterly Review of Comparative Education*, 45(August), 285–303.
- Rolleston, C., & Moore, R. (2018). *Value-added analysis in India. Young Lives Research Report*. Oxford: Young Lives.
- Rossiter, J., Woodhead, M., Rolleston, C., & Moore, R. (2018). Delivering on every child's right to basic skills, summative report. In *Young Lives, Oxford*. Oxford: Young Lives.
- Roy, A. (2020, April 3). The pandemic is a portal. *The Financial Times*. <https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>
- Sahni, U. (2020). COVID-19 in India: Education disrupted and lessons learned. *Brookings Blog*.
- Schütz, G., West, M. R., & Wöbmann, L. (2008). *School Accountability, Autonomy, Choice and the Equity of Student Achievement: International Evidence from PISA 2003*. OECD Education Working Paper 14. Paris.
- Singh, A. (2015). Private school effects in urban and rural India: Panel estimates at primary and secondary school ages. *Journal of Development Economics*, 113, 16–32. <https://doi.org/10.1016/j.jdeveco.2014.10.004>
- Singh, R., & Bangay, C. (2014). Low fee private schooling in India – More questions than answers? Observations from the Young Lives longitudinal research in Andhra Pradesh. *International Journal of Educational Development*, 39, 142–150.

# Strengthening the Education System for Equitable Learning during COVID-19 in Ethiopia

 **Louise Yorke**, Research Associate, University of Cambridge, UK


 ly315@cam.ac.uk

 **Pauline Rose**, Professor, REAL Centre, Faculty of Education, University of Cambridge, UK

 pmr43@cam.ac.uk

 **Tassew Woldehanna**, Professor, Department of Economics, Addis Ababa University, Ethiopia

 tassew.woldehanna@aau.edu.et

 **Belay Hagos Hailu**, Associate Professor, Institute of Education Research, Addis Ababa University, Ethiopia

 belay.hagos@aau.edu.et

## Summary

Drawing on evidence from research carried out with government officials, school principals, teachers and donors in Ethiopia, we explore the education system response to the COVID-19 pandemic in Ethiopia. Bottlenecks within the education system, combined with existing inequalities, limited the effectiveness of the response. We reflect upon what is needed going forward.

## Keywords

Education Planning  
COVID-19  
Equity  
Phone Surveys  
Ethiopia

## The unequalising impacts of the COVID-19 school closures in Ethiopia

In the context of the COVID-19 pandemic, ensuring inclusive and equitable quality learning, as set out in Sustainable Development Goal 4, has become even more challenging due to the unequalising effects of the crisis (Stewart, this issue). In Ethiopia, the significant gains made in education in recent decades are now threatened. This is likely to have lasting consequences for students' development and outcomes. An important challenge is the growing inequalities between different groups of students, especially across gender, location (region, rural-urban) and income-level. These inequalities are likely to be compounded by the adverse [socio-economic impacts](#) of the pandemic on individuals, households and communities.

As a result of school closures, which began in Ethiopia in March 2020, approximately [26 million primary](#) school students were out of school for at least six months. To support students' distance learning, the government put in place a number of measures including lessons broadcast through radio for primary school students. They placed special emphasis on supporting disadvantaged students stating, "...vulnerable and disadvantaged children are the



most affected and hence will be given special emphasis during this complicated crisis” (MoE, 2020, p. 1). Yet, studies suggest distance learning did not reach all students, and those already facing the greatest disadvantages received the least support (Azevedo et al., 2020; Kim et al., 2020; Wieser et al., 2020).

Thus, strengthening the education system for equitable learning is imperative and much focus has turned to “building back better” and more efficient education systems, resilient to future shocks. Ethiopia presents a case study for considering what is needed to revitalise progress made prior to the pandemic, given that strengthening the education system for equitable learning has been a [consistent priority of the government](#), one that has become even more urgent in the context of the COVID-19 pandemic

### RISE Ethiopia distance research

The [Research for Improving Systems of Education \(RISE\) Ethiopia](#) research study conducted during the COVID-19 pandemic included [phone and online interviews](#) with donors, government officials (regional and *woreda* [district]), school principals and teachers across seven locations (regions and city administration) (Table 1). The inclusion of different stakeholders provided the opportunity for a system-level perspective of what took place in response to the COVID-19 pandemic. However, we were limited in our ability to include stakeholders who lacked access to technology.

**Table 1.** Participants included in RISE Ethiopia COVID-19 phone survey

Region	Donors	Government Officials		School-Level	
		Regional	Woreda	Principals	Teachers
Addis Ababa	3	0	0	16	47
Amhara	-	8	2	17	40
Ben. Gumuz	-	0	0	17	41
Oromia	-	3	6	31	83
SNNP	-	8	2	14	28
Somali	-	0	0	15	37
Tigray	-	1	5	17	40
<b>Total</b>	<b>3</b>	<b>20</b>	<b>15</b>	<b>127</b>	<b>316</b>

Drawing on the interviews, we consider the design, implementation and perceived impact of the government’s

COVID-19 education system response strategy. We focus on how the needs of different groups of students were included at the planning stage, the system-level factors that influence the support that they received and the likely impact on their education and development. Based on these insights, we reflect on what is needed for strengthening the education system for equitable learning.

### Design of the government’s education system response strategy

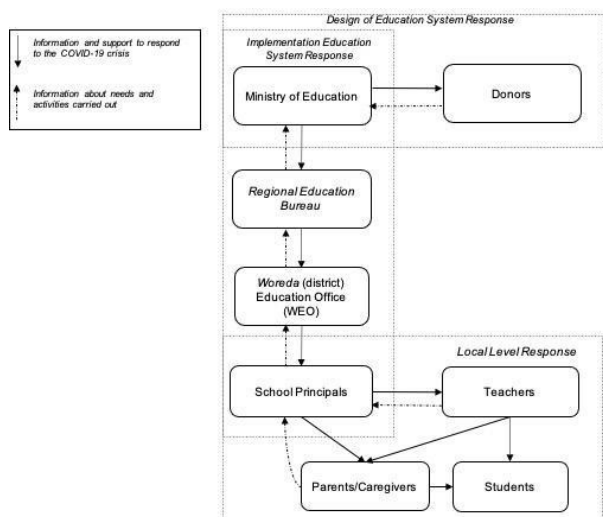
The government acted quickly in response to the school closures, introducing the “Education Sector COVID-19 Preparedness and Response Plan” in April 2020. This was designed at the federal level, by the Ministry of Education (MoE, 2020) in collaboration with donors, who were responsible for providing finance. Donors interviewed indicated that the data and evidence used to inform the government’s response strategy was not always up-to-date and therefore did not necessarily reflect what was taking place on the ground, while the inflexible programming and budget made responding to the crisis even more challenging. There was little involvement or consultation with stakeholders at regional, *woreda* or school level who were responsible for implementing the strategy. While 80% of regional and 93% of *woreda* respondents reported being involved in implementing the government’s education system response strategy, only 18% and 14% respectively indicated that they had been involved in its design. Some school-level stakeholders believed that the centralised nature of planning, limited the effectiveness of the education system response. In some cases, they considered local knowledge and experience was overlooked regarding what was needed to support students’ learning, especially for disadvantaged groups.

### Information and support for responding to the COVID-19 pandemic

Given the changing nature of roles and responsibilities of stakeholders in the education system in the context of COVID-19, receiving adequate information and support to rapidly respond to the pandemic was imperative. However, we found that stakeholders – especially those at school-level – did not receive sufficient information and support to enable them to respond effectively. This was primarily due to an over-reliance on a cascade flow of information and support from the Ministry of Education to the Regional Education Bureau, the *Woreda* Education Office and then to school principals and teachers (Figure 1). Information was lost from one level to the next, meaning that school-level stakeholders were least likely to receive the information and support that they needed. School principals and teachers living in rural and remote regions and female teachers were least likely to receive support, due in part to more limited access to phones in these locations. Eighty-nine percent of rural school principals had access to a phone compared with 100% of urban school

principals. Meeting face-to-face was more of a challenge during the COVID-19 pandemic, especially for female teachers, more likely to have an [increased domestic workload](#).

**Figure 1.** Schematic representation of education system response to the COVID-19 pandemic.



Source: Adapted from Yorke et al., 2021.

Inefficient flows of information meant that collaboration and coordination across different levels of the system were limited. There were good levels of communication between stakeholders at different levels of the system, i.e., between donors and MoE officials and between regional and woreda level officials, but communication across these different levels remained limited. Stakeholders held different views about the challenges that they believed the pandemic presented and what was needed to respond.

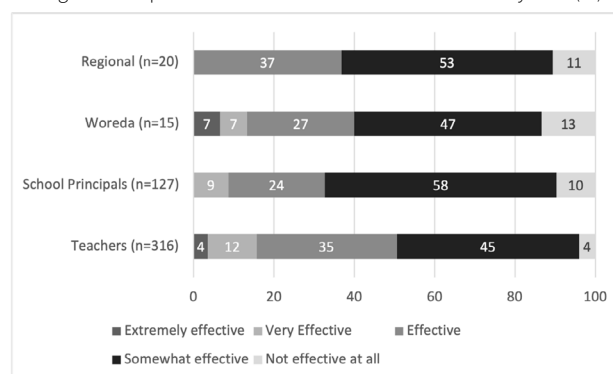
### Supporting school principals and teachers to respond to school closures

Inefficient flows of information and support had knock-on consequences for school-level stakeholders' response to school closures and impacted their ability to support students' distance learning. School principals and teachers who received information and support were significantly more likely to report supporting distance learning during the school closures, controlling for differences across gender and rural-urban location (Yorke et al., 2021). As reported in other contexts (e.g., Stewart, this issue), less than half of teachers in the sample were engaged in providing distance support for students' learning, with rural teachers less likely to indicate that they were providing support. Other challenges reported by teachers included limited access to technical equipment (such as computers) and lack of confidence in their ability to deliver and support distance learning.

### How effective was distance learning?

Stakeholders at all levels of the system (regional, *woreda* and school-level) were more likely to view the government's education system pandemic response strategy as only "somewhat effective" in supporting students' distance learning, including the overall response strategy and the educational programmes broadcast through radio (Figure 2). Students from low-income families and rural students were perceived as least likely to benefit from the support provided, as they did not have access to the required technology and would be more likely to be engaged in work activities. Teachers included in the sample suggested the majority of parents and caregivers would be unable to support students' learning due to the high work demand that parents were facing, together with their low literacy levels. As captured by Stewart (this issue), inequalities in parents' own educational level is likely to produce further inequalities.

**Figure 2.** Perceived effectiveness of educational programmes broadcast through radio reported at different levels of the education system (%)

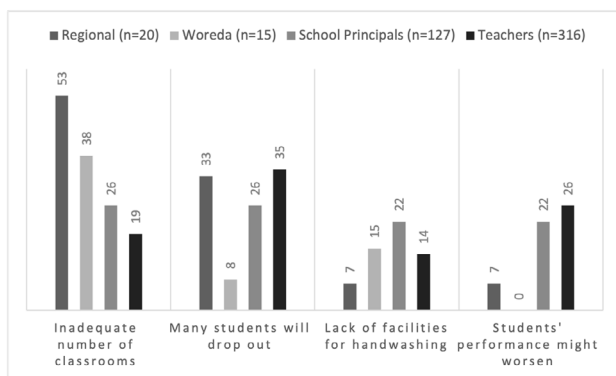


Participants highlighted how disadvantaged students were likely to face further challenges due to the range of additional in-school supports that they would miss out on, such as school-feeding for students from low-income families, emotional support for girls and children with disabilities and peer-to-peer support for low-performing students and rural students (Figure 2). These findings are consistent with other related RISE Ethiopia research that has also highlighted the inadequate support that disadvantaged students received during the school closures, especially [children with disabilities](#). Although the government outlined the importance of responding to the needs of disadvantaged students at the planning stage, the strategies put in place did not cater for the needs of different groups of students, especially those who are most marginalised, or take account of the varied roles that schools play in students' learning and development.

### Challenges for reopening schools

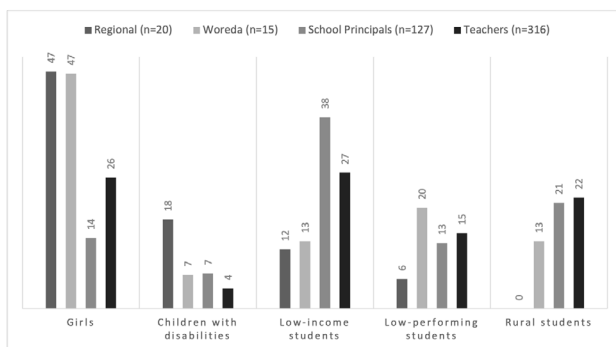
Anticipated challenges for schools reopening, including inadequate number of classrooms to implement social distancing, inadequate hand washing facilities and reduced number of teachers (Figure 3), highlight the need for bringing more resources into the education system.

**Figure 3.** Challenges stakeholders believed would be faced as schools reopen (%)



Increased student dropout was the challenge most reported by school principals and teachers. Girls and low-income students were believed to face the greatest challenges in returning to school (Figure 4).

**Figure 4.** Groups stakeholders believed to be most at-risk of dropping out of school (%)



Despite these concerns, only two-thirds of school principals reported that they were making plans to support disadvantaged students to return to school, although school principals who had contact with parents and caregivers during the school closures were likely to report making these preparations – suggesting they were more attuned with the needs of disadvantaged groups.

For all stakeholders, catching up on lost learning was imperative, with some suggesting that the government’s current approach was insufficient and did not account for students’ varying needs. Many donors, and regional and woreda-level government stakeholders believed the government’s policy of automatic promotion was necessary during COVID-19. But school-level stakeholders believed this would lead to the further deterioration of education quality and negatively impact students’ learning, especially low-performing students who may struggle to catchup. They considered efforts to catchup on lost learning should seek to identify individual student needs, especially for students from low-income families, girls and rural students, and adapt responses accordingly. Others identified a need to equip

students with skills for independent study and to encourage parents to support children’s learning.

### Strengthening the education system for equitable learning

These findings highlight that despite the swift response of the government to the Covid-19 school closures, disadvantaged students are least likely to have received support during this time. This was due to bottlenecks within the education system, including the unavailability of up-to-date data and evidence, limited involvement of local-level stakeholders and over-reliance on the cascade flow of information within the system. Existing inequalities across location (region and rural-urban), income-level and gender mean that support was least likely to reach those who needed it the most.

This analysis provides lessons for efforts to strengthen the education system in Ethiopia and related contexts to address growing inequalities within and between groups of students. Better data and evidence to identify and respond to the evolving and “hidden” needs of different groups of students is required. Greater efforts to include local level stakeholders in the design of strategies could help ensure they are more closely aligned with local needs. There is a need to move beyond focusing on academic learning alone to consider students’ holistic needs, including physical needs, [socio-emotional learning, mental health and wellbeing](#). Improved information flow and communication within the system would help to ensure that all stakeholders are informed and supported to respond to challenges as they arise, ensuring better collaboration and coordination.

## References

Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., & Geven, K. (2020). *Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates*. World Bank Policy Research Working Paper No. 9284.

Kim, J., Araya, M., Ejigu, C., Hagos, B., Rose, P., & Woldehanna, T. (2020). *The implications of COVID-19 on early learning continuity in Ethiopia: Perspectives of parents and caregivers*. Research and Policy Paper No. 20/11. REAL Centre, University of Cambridge.

Ministry of Education (MoE) (2020). *Concept note for education sector COVID-19 preparedness and response plan*. Ministry of Education.

Wieser, C., Ambel, A. A., Bundervoet, T., & Tsegay, A. H. (2020). *Results from a High-Frequency Phone Survey of Households* (No. 148890, pp. 1-9). The World Bank. Washington, D.C.

Yorke, L., Rose, P., Woldehanna, T., & Hagos, B. (2021). Primary school-level responses to the COVID-19 pandemic in Ethiopia: Evidence from phone surveys of school principals and teachers. *Perspectives in Education*.

# The Impact of School Closures in Crisis-affected Contexts

 **Leanne M. Cameron**, Postdoctoral Fellow, School of Education, University of Bristol, UK

 LM.Cameron@bristol.ac.uk

## Summary

In the first year of the COVID-19 pandemic, school closures served to both expose and drive inequalities, especially in contexts where the growth of COVID-related precarity and poverty interacted with existing conflicts and crises. This article argues for understanding schools as essential protective mechanisms for safeguarding children's health and wellbeing during this pandemic and in future emergency situations.

## Keywords

School Closures  
Child Protection  
COVID-19  
Crisis-Affected Contexts

In mitigating the rapid spread of COVID-19, in 2020 governments around the world ordered the closure of schools, universities and nonformal learning spaces. At the outset of the pandemic, when little was known about the disease itself, drastic social isolation measures were seen as essential in protecting those most vulnerable. However, over subsequent months research has begun to demonstrate the many spaces of harm “disproportionately borne” by children and young people in ongoing COVID responses (Snape & Viner, 2020, p. 288). Betraying a human capital approach to educational quality, much focus has been given to learning loss and the associated long-term economic impact (Azevedo et al., 2020; Busso & Munoz, 2020; Conto et al., 2020). But in economically stagnant, aid-dependent, low-income and post-conflict contexts is an economic narrative about education appropriate?

In deciding that schools be closed alongside shops, churches and restaurants, decision-makers failed to see the essential services provided by schools. In conflict-affected and refugee-hosting contexts, schools provide access to formal and informal services that are key to sustaining a child's physical, mental, emotional and social wellbeing. In those contexts, new spaces and intersections of inequality have emerged as schools were closed, children are confined to their homes and left to a lottery of individual and contextual variables. This paper is drawn from an initial report commissioned in late 2020 by the Inter-agency Network for Education in Emergencies and the Alliance for Child Protection in Humanitarian Action (Cameron, 2021). The report included an extensive desk review of existing literature, supplemented by case studies drawn from consultations with 19 key informants from the education and child protection sectors in five crisis-affected, low- or middle-income contexts: Colombia, Democratic Republic of the Congo (DRC), Lebanon, Rwanda and Sri Lanka. This paper builds from the information in the report and reflects upon some of the forms of inequality that are exposed and exacerbated with school closures. It considers inequalities around learning, health and development, and increased vulnerability to abuse, neglect and exploitation. I argue for a conceptualisation of schools as the primary protective mechanism for combatting the growth

of inequalities and ensuring child and young adult wellbeing in crisis-affected contexts, for this current pandemic and future infectious disease outbreaks and emergency scenarios.

### **School closures: Exacerbating inequality**

As emphasised by Stewart (this issue) and other commentators in this Special Issue, widespread school closures and ongoing COVID-related schooling disruptions, combined with slow and inadequate responses by governments to provide learning opportunities (Dreesen et al., 2020), has accelerated inequalities regarding who can access quality academic learning opportunities. UNESCO-UIS (2021) estimated that children missed an average of 54% of usual contact hours for the year, which translates to an entire year of lost learning. A growing body of research is cataloguing the barriers to ongoing engagement with education, noting problems of inconsistent power and internet connectivity (Dreesen et al., 2020), the lack of suitable devices or competition within a household for use of a device (UNESCO et al., 2020), the heavy cost of internet and data plans (Amnesty International, 2020) and differences in a family's capacity to support at-home learning, even with paper-based or other non-digital learning materials (Mishra et al., 2020).

Schools play an essential role beyond academic opportunity: they have long functioned as centralised, convenient and familiar access points to government services to support children's health and wellbeing. In providing those services, especially in conflict affected LMICs, schools compensate for societies unable or unwilling to address inequalities in access to adequate nutrition services, healthcare and psychosocial support. According to UNESCO (2020), in 89% of countries worldwide, schools provide both direct services and referrals for health and nutrition. These range from feeding programmes to school-based vaccination and health clinics (Boast et al., 2020) and include specialised therapies and support for children with disabilities (The World Bank, 2020). In crisis-affected contexts, schools may be the only state presence available. Beyond these physical and social supports, there are examples of school staff taking on government roles. In rural Colombia, for example, Costa (2020) reported that teachers act as state representatives and register births.

COVID-19 school closures have demonstrated the inherent fragility in schools which may serve as the only compensation for limited social provision. The loss or disruption of school-based nutrition services has been directly implicated in increasing rates of malnutrition, a form of inequality with serious consequences for long term physical and mental development. At the height of lockdown, as many as 396 million children could not access school feeding programmes (WFP, 2020), and when coupled with skyrocketing

unemployment, the World Food Programme projected that compared with 2019 estimates, an additional 130 million would suffer acute hunger as families had to cut back the quality and quantity of food (Anthem, 2020). School closures meant that more than 83,000 children in the poorest areas of Rwanda lost access to nutritious meals, and an estimated 66.2% of children between five and 14 are projected to suffer nutrient deficiencies (Cameron, 2021). Previous research has demonstrated the long term outcomes of hunger and malnutrition, highlighting serious and ongoing impacts on children's overall health and learning capacity (Matrins et al., 2011), and self-esteem and self-efficacy (Woodhead et al., 2013). Cuts to school feedings are projected to further exacerbate dropouts and reduce incentives for impoverished parents to enrol their children, especially girls, in school (Save the Children, 2020).

In refugee-hosting and post-conflict contexts, schools can function as the sole delivery sites for mental health and psychosocial support interventions, essential for children and young people healing from experiences of conflict and trauma (3EA, 2017; Kamali et al., 2020). Beyond those formal supports, the day-to-day routines and social interaction of schooling provide informal social and emotional stability that provide structure for traumatised children and young people. Stakeholders in Lebanon have reported on the extreme challenge of transitioning in-person psychosocial support services to distance modalities, warning of children with disabilities who needed psychosocial support "disappearing" even further (Cameron, 2021). With the August 2020 Beirut port explosion, Terres des Hommes Italy (2020) noted that with the fallout from the blast – resulting in 190 dead, 6,000 injured and the destruction of thousands of homes – created an even more dire scenario, especially for those suffering multiple traumas.

Usually, services for nutrition, health, and wellbeing provide "pull" mechanisms for encouraging school enrolment and attendance whilst also addressing wider inequalities which can negatively impact a child's development. The loss of these services occurs within a climate of growing precarity, with "monumental" impacts on adult mental health (The Lancet Infectious Diseases, 2020, p. 1217). Families may turn to risky coping measures to meet basic needs. Bywaters et al. (2019, p. 42) note that "in the face of extreme disadvantage," the struggle to attend to basic survival needs "may undermine parenting, family relationships, and child development". Without claiming direct causality, evidence from across crisis-affected contexts is demonstrating that school closures and the loss of services and stability can be implicated in more serious repercussions. As inequalities interact with the loss of the protective school environment, children and young people risk exposure to further forms of harm.



### **School closures: Compounding risk**

Within a global context of growing poverty and precarity, further impacted by existing conflicts and environmental, political and economic emergencies, risks of child abuse, neglect and exploitation are associated with school closures in crisis-affected contexts. Schools are essential in attending to the protection of children and young people especially in these contexts. Though they are often imperfect safeguards (see UNESCO, 2009), schools at their most basic provide a physical environment in which authorities have legal obligations for the protection of students, children are made visible to authorities and protective services, and teachers and school personnel can function as a first line of defence in detecting and reporting abuse, neglect, exploitation and violence. Home confinement during COVID-19 coincided with the curtailment of services as governmental resources were shuffled to address the direct concerns of the pandemic, limiting access to formal protection services (UNICEF, 2020) or informal support networks. In conflict and crisis zones, social protections are eroded and few routes for prosecution and justice remain operational; as a result, perpetrators of violence can operate with impunity, and sexual violence increases (Sidebotham et al., 2016).

A direct line connects school closures, compounding inequalities, and the increased risk and subsequent harm suffered by children and young people in crisis-affected contexts (Cameron, 2021). Increases in child labour have been noted (ILO & UNICEF, 2020). In DRC, Somalia and Mali, school closures are implicated in contributing towards the increased numbers of children working in mines operated by armed groups (ACAPS, 2020; Global Protection Cluster, 2020). Informants in Colombia (Cameron, 2021) commented on increases in child recruitment since schools were closed and teachers, long early detectors of grooming (Taylor, 2020), were no longer able to have daily, in-person contact with students.

Girls face specific risks of violence and exploitation and reported cases of forms of sexual and gender-based violence surged with home confinement (Peterman & O'Donnell, 2020), similar to the spikes in violence against girls and women reported during the Ebola-related 2014-2016 school closures in West Africa (Hallgarten, 2020). In Somalia, Kapur (2020) indicates that "door-to-door" female genital mutilation and cutting was widespread during lockdown, precisely because girls were out of school and thus no longer under the surveillance of school officials who would have noted their extended absences to heal from the cutting. Within narrow definitions of "essential services" for COVID-19 response, reports of domestic violence were less frequently investigated, as one informant reported for Sri Lanka (Cameron, 2021). As poverty grows and children are out of school without the supervision and protection that the schooling environment would usually provide, Save the

Children (2020) predicted exponential increases in teenage and forced pregnancy and child, early and forced marriages, already evident in contexts such as Kenya (AMREF Health Africa, 2020) and Lebanon (Plan International, 2020).

### **Schools as protective environments**

With schooling disruptions joining the litany of other crises playing out in these contexts, officials have been unable to carry out their duties of care or provide services which support children's physical, mental and emotional health. The loss of the protective schooling environment and restorative services is implicated in growing inequalities around educational access and learning, physical development and mental and psychological health. Each form of inequality has serious implications for children's future development and wellbeing, be it their physical and mental health, their ongoing enrolment in school or their future earning potential (Woodhead et al., 2013). It is essential to understand the physical school environment in crisis-affected contexts as providing for the holistic wellbeing of the child, demonstrating how, for better or worse, in fragile contexts school often functions as a substitute for a fair and equal society.

A reimagining of schools is thus required for the COVID-19 era. Approaches to education grounded in human rights (Moriarty, 2018) or social justice and capabilities (Tikly & Barrett, 2011), have long emphasised the non-academic functions of education. Their views echo scholars and practitioners in the field of education in emergencies (INEE, 2012) who frame education as central in the response and recovery from crisis. For this unique era, it is essential to not just prioritise education (such as through online modalities) but to view schools as a mechanism of protection in contexts where other safeguards have broken down, prioritising access to the physical educational environment. Looking ahead, as governments recover from the current pandemic and consider preparations for future outbreaks, schools belong amongst essential services to ensure child protection and provide some bulwark against rising inequalities.

## References

3EA. (2017). *IRC Healing Classrooms retention support programming improves Syrian refugee children's learning in Lebanon*. Education in Emergencies: Evidence for Action.

ACAPS. (2020). *Education & child protection challenges in Eastern DRC: Impact of COVID-19, conflict and policy reform*. ACAPS.

Amnesty International. (2020 June 18). *Children belonging to plantation communities should not be left behind*.

AMREF Health Africa. (2020). *Evidence on the effects of COVID-19 pandemic on female genital mutilation/cutting (FGM/C) and child, early, and forced marriages (CEFM) in Kenya*. Amref Health Africa.

Anthem, P. (2020 April 16). *Risk of hunger pandemic as coronavirus set to almost double acute hunger by end of 2020*. World Food Programme.

Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., Geven, K., Aroob, S., & Koen Geven, I. (2020). *Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates*. World Bank Group.

Boast, A., Munro, A., & Goldstein, H. (2020). An evidence summary of paediatric COVID-19 literature. *Don't Forget The Bubbles*.

Busso, M., & Munoz, J. C. (2020 April 13). *Pandemic and inequality: How much human capital is lost when schools close? IDB Blog: Ideas Matter*.

Bywaters, P., Featherstone, B., & Morris, K. (2019). Child protection and social inequality: Editorial. *Social Sciences*, 8(2), 42.

Cameron, L. M. (2021). *No education, no protection: What school closures under COVID-19 mean for children and young people in crisis-affected contexts*. Inter-agency Network for Education in Emergencies (INEE) & the Alliance for Child Protection in Humanitarian Action (ACPHA).

Conto, C. A., Akseer, S., Dreesen, T., Kamei, A., Mizunoya, S., & Rigole, A. (2020). *COVID-19: Effects of school closures on foundational skills and promising practices for monitoring and mitigating learning loss* (Innocenti Working Paper 2020-13). UNICEF Office of Research.

Costa, M. (2020). The pedagogy of peace. *Journal Periferias*.

Dreesen, T., Akseer, S., Brossard, M., Dewan, P., Giraldo, J.-P., Kamei, A., Mizunoya, S., & Saniago Ortiz, J. (2020). *Promising practices for equitable remote learning Emerging lessons from COVID-19 education responses in 127 countries*. UNICEF Office of Research.

Global Protection Cluster. (2020). *Aftershock: Abuse, exploitation & human trafficking in the wake of COVID-19*. Global Protection Cluster.

Hallgarten, J. (2020). *Evidence on efforts to mitigate the negative educational impact of past disease outbreaks*. Education Development Trust.

ILO & UNICEF. (2020). *COVID-19 and child labour: A time of crisis, a time to act*.

INEE. (2012). *Minimum standards for education: Preparedness, response, recovery*. Inter-agency Network for Education in Emergencies (INEE).

Kamali, M., Munyuzangabo, M., Siddiqui, F. J., Gaffey, M. F., Meteke, S., Als, D., Jain, R. P., Radhakrishnan, A., Shah, S., Atallahjan, A., Bhutta, Z. A., Zulfiqar, D., & Bhutta, A. (2020). Delivering mental health and psychosocial support interventions to women and children in conflict settings: a systematic review. *BMJ Global Health*, 5(e002014).

Kapur, N. (2020). *The gendered dimensions of armed conflict on children in Sub-Saharan Africa*. Save the Children Sub-Saharan Africa.

Matrins, V. J. B., Toledo Florêncio, T. M. M., Grillo, L. P., Franco, M. do C. P., Martins, P. A., Clemente, A. P. G., Santos, C. D. L., Viera, M. de F. A., & Sawaya, A. L. (2011). Long-lasting effects of undernutrition. *International Journal of Environmental Research and Public Health*, 8(6), 1817–1846.

Mishra, S., Brossard, M., Reuge, N., & Mizunoya, S. (2020 April 20). *How involved are parents in their children's learning? MICS6 data reveal critical insights*. UNICEF: Evidence for Action Blog.

Moriarty, K. (2018). *Achieving SDG4 through a human rights based approach to education*. The World Bank.

Peterman, A., & O'Donnell, M. (2020). *COVID-19 and violence against women and children: A second research round up*. Center for Global Development.

Plan International. (2020). *COVID-19 and child labour in Lebanon*. Plan International Lebanon.



Save the Children. (2020). *The global girlhood report 2020: How COVID-19 is putting progress in peril*. Save the Children.

Sidebotham, E., Moffatt, J., & Jones, K. (2016). Sexual violence in conflict: a global epidemic. *The Obstetrician & Gynaecologist*, 18(4), 247–250.

Snape, M. D., & Viner, R. M. (2020). COVID-19 in children and young people. *Science*, 370(6514), 286–288.

Taylor, L. (2020 September 10). *How Colombia's armed groups are exploiting COVID-19 to recruit children*. The New Humanitarian.

Terres des Hommes Italy. (2020). *Beirut City: Child protection and psychosocial needs assessment report*.

The Lancet Infectious Diseases. (2020). The intersection of COVID-19 and mental health. *The Lancet Infectious Diseases*, 20(11), 1217.

The World Bank. (2020). *Pivoting to inclusion: Leveraging lessons from the COVID-19 crisis for learners with disabilities*. The World Bank.

Tikly, L., & Barrett, A. M. (2011). Social justice, capabilities and the quality of education in low income countries. *International Journal of Educational Development*, 31(1), 3–14.

UNESCO-UIS. (2021). *Pandemic-related disruptions to schooling and impacts on learning proficiency indicators: A focus on the early grades*. UNESCO Institute for Statistics.

UNESCO. (2009). *Stopping violence in schools: A guide for teachers*. UNESCO.

UNESCO. (2020). *Global education monitoring report: Inclusion and education*.

UNESCO, UNICEF, & The World Bank. (2020). *What have we learnt? Overview of findings from a survey of ministries of education on national responses to COVID-19*.

UNICEF. (2020). *Protecting children from violence in the time of COVID-19: Disruptions in prevention and response services*. UNICEF.

WFP. (2020). *WFP school feeding strategy 2020-2030: A chance for every schoolchild*. World Food Programme.

Woodhead, M., Dornan, P., & Murray, H. (2013). *What inequality means for children: Evidence from Young Lives*.

# Inequalities, COVID-19 and the Private Sector: The Nigerian Education System

 **Lynsey Robinson**, Doctoral Candidate, UCL Institute of Education, UK

 lynsey.robinson.19@ucl.ac.uk

 **Taibat Aduragba Hussain**, Founder, Rising Child Foundation, Nigeria

 aduragbataibat@gmail.com

## Summary

This article provides an analysis of the Nigerian education system during COVID-19. It argues that low public spending on education since the 1980s and a higher-than-expected reliance on the private sector in some states, particularly evident in the south-east and south-west, has meant the education system is ill-equipped to deal with the COVID-19 crisis, leading to an increase in inequalities.

## Keywords

Inequalities  
Private School  
Education Finance  
Nigeria

As schools around the world closed to prevent the spread of COVID-19, education systems hurried to implement remote learning programmes to continue students' learning. Powered largely by education technology, interventions were able to mitigate the impact of the pandemic for some students. However, as organisations, governments and multilaterals evaluate the success of these responses, it is becoming increasingly clear that existing inequalities in education were exacerbated by inequalities in access to remote learning – notably for children from low-income households, and for those in rural areas (Cavalho & Hares, 2020; Moore, 2020; Stewart, this issue).

In Nigeria, emerging evidence points to an exacerbation of existing inequalities linked to a household's ability to afford and access the technology necessary for distance learning, and parents' ability to support children's learning while schools were closed (EduPlana & BudGIT, 2020; Malala Fund, 2020; TEP & NESG, 2020). Data shows that in households where income was higher, children were more engaged throughout the period of school closures (NBS & World Bank, 2021).

This is particularly concerning because the public education system was already chronically underfunded, and was highly reliant on contributions from the private sector (Onyekwena et al., 2019). The economic shock caused by the pandemic led to a sharp drop in oil prices at the beginning of the pandemic. This, coupled with state level lockdown measures, has led to reduced fiscal resources. Even though the government continues to allocate the same percentage of its budget to basic education (as legislated in the UBE Act 2004), the actual amount will be lower than in previous years (Obiakor & Adeniran, 2020). This is likely to push additional costs associated with schooling onto the private sector, including

households. This will exacerbate inequality as the World Bank has estimated that the national poverty rate will increase from 40.1%, in 2019, to 45.2% in 2022, pushing an extra 10.9 million people into poverty (Irwin et al., 2021; Lain & Vishwanath, 2021).

This means private school fees are likely to be out of reach for those who could afford them prior to the pandemic, and this represents a significant barrier to many children returning to school (Malala Fund, 2020, pp. 12-13). This can be seen in Kaduna State. Before the pandemic boys were more likely to attend private schools than girls, with the majority of girls attending public schools. A report by the Malala Fund found that 22% of boys in this state did not expect to return to school, citing fees as the main barrier to their return, compared with 9% of girls (Malala Fund, 2020, pp. 12-13). Similar situations are reported in other states where private school owners acknowledge a drop in children returning to their schools (Ayodele, 2021).

A growing body of research shows reliance on the private sector has particularly negative effects for the poorest children (Verger et al., 2019), and undermines the legal obligation of states to adequately fund and prioritise spending on free, quality public education (Unterhalter et al., 2020). In light of this, we argue that the shifting of responsibility for education away from the Nigerian state and onto the private sector, apparent since the 1980s, has resulted in an education system ill-equipped to deal with any shocks, including the COVID-19 pandemic. To mitigate the effects of the pandemic on inequalities in the education system, there is a need for an increase in public spending and state involvement, rather than an increasing reliance on the private sector.

### The Nigerian trajectory of social policy

Before COVID-19, the Nigerian education system was already marked by deep-seated inequalities – linked to decades of low levels of state spending. Inequalities were evident in enrolment and progression rates as well as low learning outcomes (Onyekwena et al., 2019).<sup>1</sup> Nigeria has one of the highest rates of out-of-school children in the world, estimated to be 10.5 million, and is [also one of 10 countries in the world with the highest percentage of poor girls who have spent less than 2 years in school and where 66% of poor girls are out of school \(UNESCO, 2021\)](#). Inequalities in Nigerian education cut across gender, regional and socio-economic lines (Kazeem & Ige, 2010; Kazeem et al., 2010).

Tables 1 and 2 outline the primary school net attendance rate (NAR),<sup>2</sup> showing that rates of attendance correlate to household wealth, and the poorer the household the lower the rate of school attendance. It can also be seen that the NAR for girls living in rural areas is just 51%, and in the north-

east of Nigeria just 44.5% (NPC & ICF, 2019). This is compared with the NAR for boys, which is 72.8% for those living in urban areas, and 83.7% for those located in the south-east (NPC & ICF, 2019).

**Table 1.** Primary school net attendance ratio

		Male	Female	Total
Residence	Urban	72.8	70.2	71.5
	Rural	55.0	51.0	53.1
Zone	North Central	62.1	62.1	62.1
	North East	46.4	44.5	45.5
	North West	57.9	51.8	54.9
	South East	83.7	81.2	82.4
	South	72.8	68.0	70.5
Wealth quintile	South West	73.6	71.9	72.7
	Lowest	33.9	30.6	32.3
	Second	60.6	55.6	58.1
	Middle	73.1	69.4	71.3
	Fourth	77.2	76.1	76.6
	Highest	73.2	69.2	71.2

Source: Nigeria Demographic and Health Survey (NPC & ICF, 2019, p. 41)

These low NAR rates persist despite commitments to universal primary education, which in some regions date back to the 1950s, and at the national level to the 1977 launch of the Universal Primary Education Programme. More recently the 1999 Universal Basic Education programme made extensive education commitments (Fafunwa, 1974; Obanya, 2011). However, state spending on education is historically low. Between 2010 and 2014, just 8.8% of the federal budget was spent on education, compared with the Dakar Education for All recommendation of 20% of the national budget (Onyekwena et al., 2019).

Underfunding education dates to the 1980s, when federal reserves dropped due to a sharp decrease in global oil prices. Austerity measures including structural adjustment, imposed by the IMF and World Bank, severely restricted spending on education (Hinchcliffe, 1989; Babalola, et al., 1999; Imam, 2012). This led to the reintroduction of school fees in many states, pushing responsibility for the cost of education onto households and resulting in a drop in enrolment rates (Babalola et al., 1999; Imam, 2012). In states where boy's education was valued above that of girls, girls were taken out of school to work as hawkers, domestic workers or farm labourers (Obasi, 2000).

This has created a situation of high dependence on the private sector, often viewed as supplementing the public

education system. High rates of private school enrolment, particularly in urban centres and some southern states, are well-documented (Tooley et al., 2005; Härmä, 2013; Dixon et al., 2017). As is household spending on textbooks, uniforms, transport, and other school costs (Onyekwena et al., 2019).

Table 2 shows the percentage of primary school enrolments in public and private schools by location and gender in selected states. In the southern states of Anambra and Lagos, the table shows very high rates of private school enrolment and relatively low rates of public-school enrolment. This

contrasts with a high rate of public-school enrolment in northern states of Borno, Kano and Sokoto, with higher rates of poverty. This reinforces structural inequalities within and between states. Public schools have been dramatically underfunded for decades yet are the only option for many poor households and for those living in rural areas (Härmä, 2016). Studies show that the poorest households are often unable to afford uniforms, textbooks and transport costs (Kazeem et al., 2010).

**Table 2.** Percentage of public and private school enrolments in Anambra, Borno, Kano, Lagos and Sokoto by gender and location (2018)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>ANAMBRA</b>									
Private	43.0%	42.7%	42.8%	27.4%	27.8%	27.6%	34.4%	34.7%	34.6%
Public	57.0%	57.3%	57.2%	72.6%	72.2%	72.4%	65.6%	65.3%	65.4%
<b>BORNO</b>									
Private	21.3%	24.1%	22.6%	3.3%	3.9%	3.6%	14.1%	16.3%	15.1%
Public	78.7%	75.9%	77.4%	96.7%	96.1%	96.4%	85.9%	83.7%	84.9%
<b>KANO</b>									
Private	13.7%	13.7%	13.7%	2.7%	2.8%	2.8%	7.0%	7.1%	7.1%
Public	86.3%	86.3%	86.3%	97.3%	97.2%	97.2%	93.0%	92.9%	92.9%
<b>LAGOS</b>									
Private	52.8%	52.1%	52.5%	58.2%	59.3%	58.7%	54.0%	53.6%	53.8%
Public	47.2%	47.9%	47.5%	41.8%	40.7%	41.3%	46.0%	46.4%	46.2%
<b>SOKOTO</b>									
Private	16.3%	17.4%	16.8%	1.1%	1.3%	1.2%	5.1%	6.7%	5.8%
Public	83.7%	82.6%	83.2%	98.9%	98.7%	98.8%	94.9%	93.3%	94.2%

Source: Authors' calculations, FMOE (2018a; 2018b)

## COVID-19 and the exacerbation of education inequalities

This pattern of low spending on education and a high reliance on the private sector has led to an education system ill-equipped to deal equitably with the shock of the pandemic. This is evident in responses to school closures and the shift to distance learning.

In **March 2020**, the Federal Ministry of Education granted approval for the closure of all schools. Schools in all 36 states and the Federal Capital Territory (FCT) were closed. Many students were out of school for most of the 2019/2020 school year. About 23 states adopted remote learning programmes through radio and TV, such as "Teaching on Air" in Anambra (EduPlana & Budgit, 2020, p. 10). Five states, including, Ondo, Ogun, Edo, Kaduna and Lagos created online learning platforms, and many private

schools implemented distance-learning programmes via Zoom, WhatsApp and Google Classroom.

For students to engage with distance learning, they required access to technology: smartphones, TVs, computers and tablets. Children from poorer households are unlikely to have access to these resources. The Nigeria National Bureau of Statistics and World Bank COVID-19 National Longitudinal Phone Survey found that children in richer households were more likely to have access to TVs, smartphones and tablets for learning than those in poorer households (NBS & World Bank, January 2021). Azubuike et al. (2021) also found that children attending private schools were more likely to have access to resources, such as laptops, tablets or computers necessary for learning when schools closed.

The impact of this inequality is evident in the data on engagement in learning. Between March and October 2020, just 41% of children from the lowest economic quintile had engaged in any form of learning activity compared with 67.6% of those in the highest economic quintile (of those who had attended school at any point during the 2019/20 school year) ([NBS & World Bank, October 2021](#)). 50.1% of children living in rural areas engaged in learning during the same period, compared with 68.6% of children living in urban areas ([NBS & World Bank, October 2021](#)).

The high costs associated with technology and inequitable infrastructure, as well as poor internet connection and power supply, account for this. Access to the internet is particularly limited for those in remote and disadvantaged communities, despite Nigeria having the largest mobile broadband market in Africa (Bahia et al., 2020). [Even as 19 million Nigerians became new internet users between 2020 and 2021, bringing the estimated total to 104.4 million, only 50% of the population have access to the internet.](#)

Where households had access to technology and infrastructure, the ability of students to engage in learning often relied on their access to an adult to support their learning, either a household member or a private tutor. Stewart (this issue) notes that parents with higher levels of education are better able to support their children during school closures. In Nigeria during the pandemic, 73.3% of households where children were engaged in learning activities, were taught by a parent or other household member (DHS & World Bank, August 2020). Children attending private schools were more likely to have access to a private tutor (Azubuikwe et al., 2021). Children in the lowest wealth quintile were more than ten times less likely to have an adult to support their learning. Demographic and Health Survey data shows that 75.4% of females and 65.1% of males in the lowest economic quintile had no formal education compared with 7.1% of females and 4.7% of males in the highest wealth quintile (NPC & ICF, 2019, p. 38 & 40).

## Prospects for a well-resourced education system?

It is sadly no surprise to anyone who studies education systems that crises like the COVID-19 pandemic have a negative impact on those who are already disadvantaged. This is in large part because many education systems are not geared towards ensuring the most marginalised have the best learning outcomes. In the case of Nigeria there has been a long history of underfunding education and cuts to the education budget during periods of crisis. This had the most severe impact on the education levels of low-income households. The COVID-19 pandemic has unmasked the way in which this reliance on the private sector has detracted from the responsibility of the state to invest in an equitable education system and has led to an increase in inequalities. At this current juncture, increased public spending on education is vital.

## References

- Ayodele, S. (2021, January 17). Free basic education policy: A child of necessity threatened by COVID-19. *The Tribune Online*.
- Azubuike, O. B., Adegboye, O., & Quadri, H. (2021). Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria. *International Journal of Educational Research Open*, 2–2.
- Babalola, J. B., Lungwangwa, G., & Adeyinka, A. (1999). Education under structural adjustment in Nigeria and Zambia. *McGill Journal of Education*, 34.
- Bahia, K, Castells, P., Cruz, G., Masaki, T., Pedros, X., Pfitze, T., Rodriguez-Castelan, C., & Winkler, H. (2020). *The welfare effects of mobile broadband Internet: Evidence from Nigeria*. Policy Research Working Paper; No. 9230. World Bank: Washington, DC.
- Carvalho, S., & Hares. S. (2020, March 30). More from our database on school closures: New education policies may be increasing educational inequality. *Center for Global Development*. <https://www.cgdev.org/blog/more-our-database-school-closures-new-education-policies-may-be-increasing-educational>
- Dixon, P., Humble, S., & Tooley, J. (2017). How school choice is framed by parental preferences and family characteristics: A study in poor areas of Lagos State, Nigeria. *Economic Affairs (Institute of Economic Affairs)*, 37(1), 53–65.
- EduPlana & BudgIT. (2020). Impact of COVID-19 on Nigerian education: Assessing inequality gaps during the COVID-19 pandemic.
- Fafunwa, A. B. (2018). *History of education in Nigeria*. Oxon: Routledge. (Original work published 1974).
- Federal Ministry of Education – FMOE. (2018a). 2018 Digest of statistics for private basic education schools in Nigeria.
- Federal Ministry of Education – FMOE. (2018b). 2018 Digest of statistics for public basic education schools in Nigeria.
- Härmä, J. (2013). Access or quality? Why do families living in slums choose low-cost private schools in Lagos, Nigeria? *Oxford Review of Education*, 39(4), 548–566.
- Härmä, J. (2016). School choice in rural Nigeria? The limits of low-fee private schooling in Kwara State. *Comparative Education*, 52(2), 246–266.
- Hinchcliffe, K. (1989). Federal financing of education: Issues and evidence. *Comparative Education Review*, 33(4), 437–449.
- Imam, H. (2012). Educational Policy in Nigeria from the Colonial Era to the Post-Independence Period. *Italian Journal of Sociology of Education*, (1), 181–204.
- Irwin, A., Lain, J. & Vishwanath, T. (2021 January 28). Using data to combat the ongoing crisis, and the next, in Nigeria. *World Bank Blogs*.
- Kazeem, K., & Ige, O. (2010). Redressing the growing concern of the education sector in Nigeria. *Edo Journal of Counselling*, 3(1), 40–49.
- Kazeem, A., Jensen, L., & Stokes, C. S. (2010). School Attendance in Nigeria: Understanding the Impact and Intersection of Gender, Urban-Rural Residence, and Socioeconomic Status. *Comparative Education Review*, 54(2), 295–319.
- Lain, J., & Vishwanath, T. (2021 January 7). Tackling poverty in multiple dimensions: A proving ground in Nigeria. *World Bank Blogs*.
- Malala Fund. (2020). Girls' education and COVID-19 in Nigeria.
- Moore, R. (2020). Access to digital learning during COVID-19 closures: compounding educational inequality? Young Lives.
- National Population Commission (NPC) & ICF. (2019). *Nigeria Demographic and Health Survey 2018*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- Nigeria National Bureau of Statistics and World Bank – NBS & World Bank. (2020-2021). COVID-19 National Longitudinal Phone Survey 2020.
- Obasi, E. (2000). The impact of economic recession on UPE in Nigeria. *International Journal of Educational Development*, 20(3), 189–207.
- Obanya, P. (2011) *Politics and the dilemma of meaningful access to education: The Nigerian story*. Consortium for Research on Educational Access, Transitions and Equity (CREATE).
- Obiakor, T., & Adeniran, A. (2020). COVID-19: Risk-control measures threaten to deepen Nigeria's education crisis. Centre for the Study of Economies of Africa (CSEA).

Onyekwena, C., Uzorm, E., Oloko, T., & Adeniran, A. (2019). *Financing basic education in Nigeria: What are the feasible options?* Background Paper. The Education Commission.

The Education Partnership Centre & The Nigerian Economic Summit Group. (TEP & NESG). (2020). *Learning in a Pandemic: Nigeria's Response to Teaching and Learning During the COVID-19 Pandemic*. [https://education.gov.ng/wp-content/uploads/2020/08/Learning-in-a-Pandemic-Report\\_TEP-NESG\\_2020.pdf](https://education.gov.ng/wp-content/uploads/2020/08/Learning-in-a-Pandemic-Report_TEP-NESG_2020.pdf)

Tooley, J., Dixon, P., & Olaniyan, O. (2005). Private and public schooling in low-income areas of Lagos State, Nigeria: A census and comparative survey. *International Journal of Educational Research*, 43(3), 125–146.

UNESCO. (2021). *#HerEducationOurFuture: keeping girls in the picture during and after the COVID-19 crisis; the latest facts on gender equality in education*.

Unterhalter, E., Ron Balsera, M., & Dorsi, D. (2020). What can be done? The Abidjan Principles as a Human Rights Framework to evaluate PPPs in education. In J. Gideon & E. Unterhalter (Eds.), *Critical Reflections on Public Private Partnerships* (pp. 234-257). Oxon: Routledge.

Verger, A., Fontdevila, C., Rogan, R., & Gurney, T. (2019). Manufacturing an illusory consensus? A bibliometric analysis of the international debate on education privatisation. *International Journal of Educational Development*, 64, 81–95.

#### Endnotes

1. For example, in the *Education Quality Index (2015)*, Nigeria's ranking was 124 out of 144 countries (Onyekwena et al., 2019).
2. The NAR is the total number of students of the official age group for a given level of education who are attending school at any level of education, expressed as a percentage of the corresponding population, which gives an indication of the percentage of primary school-age children attending school.

# Family-school collaboration for students with disabilities in Ontario, Canada


 **Grace L. Francis**, Associate Professor, George Mason University, USA

 gfranci4@gmu.edu

 **Julia Jansen-van Vuuren**, Ph.D. Candidate, Queen's University, Canada

 17jmjv@queensu.ca

 **Navjit Gaurav**, Ph.D. Candidate, Queen's University, Canada

 19ng7@queensu.ca

 **Heather M. Aldersey**, Associate Professor, Queen's University, Canada

 hma@queensu.ca

 **Sharon Gabison**, Assistant Professor, University of Toronto, Canada

 shar.gabison@utoronto.ca

 **Colleen M. Davison**, Associate Professor, Queen's University, Canada

 davisonc@queensu.ca

## Summary

The COVID-19 pandemic illuminated societal inequities, including those associated with meeting the needs of students with disabilities. This study aimed to explore how satisfied caregivers of students with disabilities were with their family-school collaboration before and after schools closed because of COVID-19 in Ontario, Canada. Implications for policy and practice are discussed.

## Keywords

Family  
Teacher  
Virtual Learning  
Disability  
Canada

COVID-19 has led to or illuminated innumerable societal inequities including those associated with meeting children's educational needs (Di Pietro et al., 2020). In these challenging times, however, family-school collaboration has the potential to mitigate many barriers to inequitable education experiences and disparate student outcomes (Campbell, 2020; Sider, 2020). During COVID-19, families including those of children with disabilities, became full-time teachers, technology experts, and caregivers. Limited information exists on effective family-school collaboration practices (Bennett et al., 2020), and even less on collaboration practices in the COVID-19 era. This study aimed to explore how satisfied Ontario family members of students with disabilities were with family-school collaboration before and after schools closed due to COVID-19 in 2020.



## Context

In Canada, delivery of education is decentralised at the provincial government level. In Ontario, 72 school boards are responsible for providing special education programs and services as mandated by The Education Act. In 2021, more than 178,500 Ontario students were identified as “exceptional pupils” (students with disabilities). Additionally, 162,000 students who were not formally identified were provided with special education programs and services (People for Education, 2021). Once students with disabilities are formally identified as a learner with exceptional needs by an Identification, Placement and Review Committee (IPRC), school boards must develop an Individual Education Plan (IEP) that outlines a special education program and/or services for identified students. This plan is based on an assessment of student strengths and needs. School boards may also develop an IEP for students who have not been formally identified, but who receive special education programs/services. Family-school collaboration is mandated by the Ontario Ministry of Education’s Parents in Partnership Policy. Despite this formal provision, a 2018 study of parents of Ontario students with disabilities demonstrated that parents experienced barriers to accessing appropriate education for their children and lacked engagement with their children’s teachers (Reid et al., 2018).

Ontario public schools shifted to remote learning in March 2020 in response to COVID-19, before offering various options for returning to formalised schooling in the fall of 2020 (i.e., in-person, virtual learning, hybrid), depending on grade level and family preference. In August 2020 because of family advocacy, the Ontario government shared a targeted plan for education of students with disabilities in Ontario schools. Many recommendations of this plan, however, have yet to be implemented (Thomson, 2020) and many families continue to experience a lack of collaboration with schools (Waberi, 2020).

## Methods

To explore how satisfied Ontario families of students with disabilities were with their family-school collaboration before and after schools closed because of COVID-19, we used an online survey (Dillman et al., 2014). We drew on Haines et al.’s (2017) activity categories regarding what families and teachers should do in partnership as a framework for survey questions. The survey included seven basic demographic questions and seven three-point Likert-scales related to teachers: (a) knowledge of student needs; (b) meeting student needs; (c) supporting parents to meet the needs of their child; (d) tracking student services; (e) connecting families to needed services at home, school or in the community and (f) advocating for students. All survey questions included a pre-post school closure response option and optional open-ended response space. We piloted the survey with three family members of persons with disabilities

and two individuals with experience teaching in Ontario public schools prior to its implementation.

The Family Alliance Ontario, an autonomous alliance of citizens who offer knowledge, tools and networking opportunities to individuals with disabilities, their families and friends, supported participant recruitment. They distributed invitations to participate in the study via organization email lists and an open Facebook page in August 2020, six months after Ontario initially moved to at-home virtual learning. Data collection occurred until September 2020, after schools reopened. We used frequency data to report Likert-scale findings. We also engaged in basic thematic analysis (Merriam & Tisdell, 2016) to report emerging themes across the open-ended responses. A total of 146 family members of school-age children with disabilities completed the survey. Table 1 provides demographic information.

**Table 1.** Participant demographics

Characteristics	n	%
Gender	146	
Male	57.0%	57.3%
Female	12	24.1%
Age of the child with disability	146	
5-10 years old	59	40.41
11-15 years old	41	20.08
16-20 years old	42	28.77
21 years old or older	4	2.74
Average household income	136	
\$20,000 or less	13	9.56
\$21,000-\$40,000	20	14.71
\$41,000-\$80,000	29	21.32
\$81,000 or higher	74	54.40
Geographic location	117	
Rural	27	23
Urban	90	77

“Post-school closures” responses refer to the March 2020 – September 2020 timeframe, when students engaged in virtual learning in their homes, a hybrid model of learning (in-school and virtual learning) or had returned to in-person classes.

## Survey results

The survey revealed a marked decline in parents’ confidence that teachers were able to support their child’s needs post-school closures. Participants overwhelmingly agreed

that their child's teacher knew their child's needs prior to COVID-19 (71%). However, only 37% of participants agreed that their child's teacher knew their child's needs during COVID-19. Further, 38% of participants agreed that their child's teachers met their child's needs prior to COVID-19, but only 16% agreed post-school closures. Sixty percent of participants agreed that their child's teachers knew what services their child needed prior to COVID-19, whereas only 35% of participants agreed after school closures. In addition, 48% of participants agreed that their child's teacher helped them to acquire services for their children prior to COVID-19. Again, this percent dropped to 17% after school closures. Thirty-three percent of participants agreed that their child's teachers effectively tracked their child's services prior to COVID-19, falling to 11% after school closures. Thirty-eight percent of participants agreed that their child's teacher effectively connected home, school and community resources to help their child before COVID-19, whilst just 16% agreed post-school closures. Further, 47% of participants agreed that their child's teacher advocated for their children prior to COVID-19, which dropped to 26% post-school closures.

For those who maintained good links with teachers or schools, this was very supportive. Several participants expressed feeling "lucky to belong to a very supportive school community and have a very supportive teacher and EA [educational assistant] who have been outstanding at keeping communication lines open and offering resources to help our child learn during this pandemic." Others were appreciative of teachers "calling early on during the school shutdown" and staying in contact via phone calls, emails and platforms such as Zoom. Participants also collaborated with Special Education Resource Teachers (SERT) – "We were in touch weekly touching base on work assigned and how work was being assigned/completed" – and described teachers who provided at-home support: "[teachers] offered to drop off needed school supplies, they work[ed] with me and accommodate[d] her learning plan to our life at home." Several participants indicated improved communication and collaboration because of COVID-19 because they saw their child's teachers "daily online," because "COVID-19 made teachers more accessible via email," and because they were able to provide teachers with "information they didn't have before" (e.g., family stories, information about "home life").

But a number of participants reported that connections with school had not been good before the pandemic, and this became further stressed after school closures: "We don't collaborate. I am invited to sign the IEP each September and attend an IPRC [Identification, Placement and Review Committee] meeting when they want to have one, where they present me with a completed form that I am expected to sign." Some participants made strong comments such as "They [teachers] don't have enough time to help all the

kids with need BEFORE this happened, and they don't stand a chance of meeting their needs now. I repeat THERE IS NO COLLABORATION [sic]." Another complication for some families during school closures was losing access to school services such as job training, speech and language services (e.g., "Once schools closed all that stopped completely."). Participants indicated that after school closures, services equated to "Zero, zilch, nada! It's like we got cut off!" and that "ZERO [sic] efforts were made on my child's behalf to offer anything more for his success."

Unfortunately, a number of participants described the "total mess" of securing services, including schools rejecting collaboration with outside services prior to the pandemic: "When we suggested that we could have the Therapist that works with our child to meet with his teachers the school refused." "The school does not care" was a recurring statement among participants (e.g., "I feel like my child has been forgotten."). Some parents recounted elevated levels of parent advocacy during school closures – especially strong among Indigenous participants: "My child is Indigenous and her teachers know nothing, or very little about Indigenous Canada...we have had many other incidents of images...of Indigenous culture being presented inaccurately... there is a lot of systemic anti-Indigenous and anti-Black racism...and the teachers are not equipped to help because they lack the education and training in this area." Challenges in obtaining support and collaboration were especially stressful as some participants struggled balancing at-home learning and work (e.g., "Like many [families] I'm...still working and now helping both kids with their work.") While a number of participants had "a real sense of 'just getting thru [sic] each day,'" they also noted that teachers "seem[ed] overwhelmed and unable to devote time to talk with us," and "don't blame the teachers" because "teachers did as much as they could."

The survey question "My child's teachers know my child's needs" demonstrated the largest discrepancy in satisfaction. Conversely, the question "My child's teachers effectively advocate for my child" included the least discrepancy. That said, the discrepancy among all questions ranged from 21-28%, with a mean difference of 23% of pre- post-school closures responses across questions. These findings indicate an overall low rate of satisfaction with collaboration prior to COVID-19 which diminished after school closures.

The overall low levels of satisfaction across questions before and after the COVID-19 school closures is surprising, indicating that participants were generally dissatisfied with family-school collaboration under general operating procedures across Ontario. This highlights that families of students with disabilities already experienced inequities in education (e.g., student needs going unmet, schools rejecting community support, need for parent advocacy, racism), and the

COVID-19 pandemic exacerbated these inequities. Participant responses regarding positive collaboration experiences (e.g., teachers delivering needed supplies, checking in via email), descriptions of the ways in which COVID-19 enhanced family-school collaboration (e.g., interacting daily online), and reported empathy for teachers (e.g., limited time to support students) has the potential to address inequities in schools, improve virtual learning and develop collaborative relationships between families and teachers.

In developing insights from this study some limitations need noting. Participants were not systematically recruited and needed access to the Internet and sufficient English and digital literacy to complete the survey. To support further work in this area, future researchers need to recruit diverse participants in other Canadian provinces, provide extra language or digital support for potential respondents and consider investigating the perspectives of other stakeholders (e.g., teachers).

This study highlighted the positive influence of teachers learning more about families during school closures. Thus, families may consider creating a family-focused document to email teachers and other staff to make a connection between the school and their family. Teachers can send informal emails to families sharing interests or photographs to build relationships with families. Participants also remarked on the positive influence of consistent communication during school closures on collaborative relationships. As a result, teachers may consider creating a “family contact schedule” to ensure that they regularly communicate with all families regarding student progress and needs, thus mitigating inequality such as a lack of collaboration and the need for parent advocacy. Further, schools and teachers should consider focusing advocacy efforts on reducing inequities related to disability by securing appropriate services for students, and, when needed, locating services from community resources. Schools maximising available resources by collaborating with students’ out-of-school services (e.g., therapists) during meetings or emails is a further suggestion.

## References

- Bennett, S., Specht, J., Somma, M., & White, R. (2020). Navigating school interactions: Parents of students with intellectual disabilities speak out. *Current Developmental Disorders Reports*, 7(3), 149-154.
- Campbell, C. (2020). Educational equity in Canada: The case of Ontario’s strategies and actions to advance excellence and equity for students. *School Leadership & Management*, 1-20.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. John Wiley & Sons.
- Di Pietro, G., Biagi, F., Costa, P., Karpiński, Z., & Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets*. Publications Office of the European Union.
- Haines, S. J., Francis, G. L., Mueller, T. G., Chiu, C.-Y., Burke, M. M., Kyzar, K., Shepherd, K. G., Holdren, N., Aldersey, H. M., & Turnbull, A. P. (2017). Reconceptualizing family-professional partnership for inclusive schools: A call to action. *Inclusion*, 5(4), 234-247.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- People for Education. (2021). *Public education in Ontario*.
- Reid, L., Bennett, S., Specht, J., White, R., Somma, M., Li, X., Lattanzio, R., Gavan, K., Kyle, G., Porter, G., & Patel, A. (2018). *If inclusion means everyone, why not me?*
- Sider, S. R. (2020). School principals and students with special education needs in a pandemic: Emerging insights from Ontario, Canada. *International Studies in Educational Administration*.
- Thomson, G. (2020). [An important new report to the Ontario government calls on the government and school boards to take action now to ensure that one third of a million students with disabilities are able to fully participate in Ontario schools as they re-open this fall.](#)
- Waberi, O. (2020). Students with disability face more obstacles amid coronavirus: Advocates. *The Canadian Press*.



# Part 2

## Technology

# Being Digital: How COVID-19 Changed the Higher Education Landscape

 **Ulrike Rivett**, Professor, Department of Information Systems, University of Cape Town, South Africa

 [ulrike.rivett@uct.ac.za](mailto:ulrike.rivett@uct.ac.za)

## Summary

One common denominator defining the education sector experience of COVID-19 entailed teaching and technology very suddenly becoming intertwined. Drawing on my reflection of teaching during 2020, I seek to understand resilience in the education sector and how technology can serve as an enabler for teaching in a changing and uncertain environment.

## Keywords

Remote Teaching  
Online Learning  
Higher Education  
COVID-19  
Education Technology

Shortly after the outbreak of the pandemic and the move to reduce density or even completely shut down universities, several papers were published highlighting experiences and impacts of remote learning and teaching. A distinction was drawn between emergency remote teaching and an online teaching environment, with the former reflecting unpreparedness and speed, and the latter defining a well-designed and thought-out teaching concept (Hodges et al., 2020). In 2020, academics had to “scramble” to accommodate the new environment, moving all materials online under less-than-ideal circumstances (Hedding et al., 2020).

Some papers focused on the experience of students during the pandemic, and large-scale global studies continue to be underway (Aristovnik et al., 2020; Crawford et al., 2020). An informative piece on the South African experience in multiple higher education institutions offers a reflection across 15 public universities (Czerniewicz et al., 2020). A common thread is the “making visible” of inequality when the campus environment is removed, highlighting that higher education institutions face the reality that “business as usual” and a return to “normal” are no longer possible. The pandemic has ironically resulted in positive policy change for online teaching, impossible to imagine in the past (Czerniewicz et al., 2020).

## “Remote” vs. “Online” – Why the difference?

As a Professor in Information Systems in a School of IT at the University of Cape Town, I teach in an environment where students and academic staff have experience of and are comfortable with digital technologies. Within the department and the group I teach, students and academics have access to equipment (laptops, smartphones, software, virtual private networks, data connectivity). If necessary, equipment and internet connectivity were provided through the University. The University shut down completely in March 2020 and re-opened for limited face-to-face engagement from March 2021. Our engagement with students moved online, and the university provided access to several platforms and tools for engagement. A small group of students experienced substantial infrastructure challenges, which were addressed in the first month of remote teaching. We had been using an

online learning platform for some years to facilitate a blended learning approach. The platform provides students with access to digital content, gradebooks, online assignments, tests and quizzes and lecture recordings.

Online teaching platforms require a substantial amount of infrastructure. From hard- and software to skilled IT support teams, the education environment must adapt to a new environment. EdTech (Education Technology) is a new industry sector, which has evolved over the last decade and benefited greatly through the pandemic. In this sector somewhat over optimistic “turnkey” solutions are often offered, and sales teams promise outsourced options to manage any environment. The industry is driven by several factors, notably profit. To afford the technology and the infrastructure that comes with it, educational institutions must restructure budgets, allocating money for recurring annual technology costs. For most organisations, a new department for IT support must be created, and the change of implementing technology, which impacts staff and students, must be managed. Is this sustainable in a resource constrained education sector in South Africa and beyond?

After the lockdown started, my university community decided to use the term “Emergency Remote Teaching” instead of “Online Teaching”. The term “Emergency” reflected our response to an unusual, unprecedented situation. It expressed a sense the situation was finite. We were not permanently moving the University’s teaching model into a new space. The term communicated that this was by no means a perfect online experience. It was an interim solution with all the challenges that emergency measures bring.

“Remote” referred to students accessing learning materials remotely rather than learning through a designed “online” course. We could not expect students to attend synchronous lectures due to uneven connectivity and electricity access. All teaching was planned in asynchronous mode. Hardcopy material was couriered to students living in remote and under-resourced areas. The difference between designed online teaching and learning materials and material created under unusual circumstances in a short space of time was clearly recognised. There was no time for redesigning courses, creating intuitive sites and applying the latest research on online learning to our course sites. This was an emergency response to an unprecedented scenario.

Technology was key. To design the remote teaching experience, we attempted to create an environment that represented the UCT campus for each student, wherever they found themselves geographically. Each lecturer provided content, lectures and support material on the online platform. WhatsApp support groups were created, and a number of exciting initiatives took off in a short time.

There was also the expected chaos, panic and technology failure. But overall, staff and students pulled together, recognising the emergency in all of this. It is unlikely that we would have achieved similar progress in such a short time under any other circumstances. Staff and students had to manage. This offered an incredible opportunity to move into a digital environment. In the second half of 2020, we were able to respond more calmly, and in the first semester of 2021, most staff and students were able to engage productively in the digital space.

After the first couple of months, when it became clear that emergency remote teaching would be prolonged, we adjusted materials and engaged differently. We designed more digital connections points with students. We met online and held tutorials together. Students in very remote areas were invited back to campus to access the internet and stay safely in residences. Nevertheless, even if none of the technology failed, and we all unmuted at the right moment, the experience was never as satisfactory as a face-to-face lecture or tutorial. What was missing?

The answer is simple: technology has not been able to replace or create the experience of the campus. A campus represents more than a set of buildings with lecture venues. Being physically on campus creates a community, a social non-digital network, a society that teaches and learns together. The connection is invisible to the eye, but we struggled to create the teaching and learning environment without it. We lose touchpoints in our digital engagements and are unable to assess the comprehension of our students by intuitively assessing the mood in the room. For a student, in a usual semester, the focus is “being on campus”. Being on a digital campus is profoundly different. However well designed the virtual campus may be, even with the best connection speed and user experience, the pandemic has shown us that without a physical campus, the core of teaching which is grounded in engagement is irreplaceably lost. The concept of a campus is that of a society brought together by the common goal of attaining knowledge. An individualised learning experience is supported through access to facilities and structures. We have yet to find a way to address the social cohesion of such a community through technology.

Creating, teaching and sharing knowledge happens for students within the boundaries of a campus through visible and invisible engagement. These give guidance and structure to a teacher. We have not been able to translate that campus experience into an online space as the technology is not available to allow for such integration, and we, as teachers, are not trained to abstract the experience of teaching to the required digital level. Technology impacts pedagogy, regulating what is possible based on our skill level and the digital infrastructure we can access. To provide pedagogical

encounters in digital space, we must not only translate what we do in the physical environment, but purposefully design this process.

The pandemic has offered an opportunity to re-envisage a future education system. Lectures have long been noted as an unattractive aspect of daily campus life with dwindling attendance and increasing provision of lecture recordings. Working groups on lecture attendance highlight the lack of good reasons to keep students in a lecture hall.

The pandemic provided an opportunity to observe what happened without face-to-face lectures over a prolonged period. Did technology allow us to replace or even improve the role of lectures as an important point of contact with students? We learned that lectures are more than just a mere presentation of knowledge. The notion of “reading” for a course has been overtaken by a clearer understanding of “teaching” and the pedagogical methods required to use the lecture period and appropriate material as a constructive engagement for sharing knowledge and working with the class. A lecture usually represents a starting point for connecting a student with a particular theme or topic. This is followed by a process of intensifying the learning through self-study, formative assessments and practical engagement with material. The lecture sets the tone for a learning journey.

When we moved to an online environment, the first engagement with the material was replaced with an online video or a text that the student had to view. This worked for the first videos. Reviewing the statistics of video downloads over time, the drop-off rate on video downloads was substantially higher, when compared to lecture attendance drop-off in all my courses.

We know students attend lectures for the experience of gaining knowledge. As students highlighted in my course evaluations, they sorely missed face-to-face lectures because they missed “sitting in a venue.” The ability to engage with the teacher after the lecture, to have a discussion, to ask a question and to chat with other students are the intangible benefits of the community of learning.

Online content is clearly useful in supporting studying, but it cannot replace that first point of contact facilitated through the lecture. The ability of the lecturer to “read” the class, to see if students follow the explanation, to follow up with a question or engage using a different example, becomes difficult in an online environment. Our joy of teaching in a face-to-face space is removed. We no longer experience in real time the enthusiasm and energy we take from engaging with students, our gratification when a difficult concept is grasped. Yes, we can design our lecture videos better or provide better platforms for engagement, but there is a profound shift in the digital teaching journey. An open letter of academics in South Africa pointed out, the benefit of learning at a university is not from lectures but from the encounters on campus (Pikoli, 2020). The lecture is the first instance of such encounters. By removing the lecture, the encounter and starting point for engagement is lost.

## Conclusion

The COVID-19 pandemic has impacted education in a profound and lasting manner. We had to shift our teaching into an online space with incredible speed and little preparation. Our teaching material had to be transferred to online platforms. We learned new software, created videos and hosted online tutorials.

All of this would not have been possible without technology. We have learnt that our education system can benefit greatly from digital engagement. But we also saw that the opportunity to engage, connect and create a learning journey for our students is to a certain extent lost in the digital space. To future-proof online engagement, we will have to reflect more deeply on what teaching and learning must look like in the online space.

2020 was stressful for teaching staff. We experience stress when we have responsibility to deliver without having the power to influence. To influence education and reduce our own stress, we need to reflect on our experience, create meaningful online content and purposefully design pedagogical encounters with our students.



## References

Aristovnik, A., Keržič, D., Ravšelj, D., Tomažević, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability (Switzerland)*, 12(20), 1–34.

Crawford, J., Henderson, K. B., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1–20.


Czerniewicz, L., Agherdien, N., Badenhorst, J., Belluigi, D., Chambers, T., Chili, M., . . . Wissing, G. (2020). A wake-up call: Equity, inequality and COVID-19 emergency remote teaching and learning. *Postdigital Science and Education*, 2(3), 946–967.

Hedding, D. W., Greve, M., Breetzke, G. D., Nel, W., & van Vuuren, B. J. (2020). COVID-19 and the academe in South Africa: Not business as usual. *South African Journal of Science*, 116(8), 8–10.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). [The difference between emergency remote teaching and online learning.](#)

Pikoli, Z. (2020 December 14). [Academics reject claims that 2020 has been a success for universities.](#) Maverick Citizen.

# Navigating Digital Innovation and Inequities in Education Amid the COVID-19 Pandemic

 **Alesia Mickle Moldavan**, Assistant Professor of Mathematics Education, Graduate School of Education, Fordham University, USA

 amoldavan@fordham.edu.

## Summary

The COVID-19 pandemic called for an unprecedented response by educational institutions to transition instruction to remote learning. This article explores educators' experiences with remote learning and the digital inequities faced by students in vulnerable and disadvantaged communities. Recommendations are made for building equity into technology initiatives to benefit all learners.

## Keywords

Education  
Technology  
Equity  
Remote Learning  
Instruction

Shortly after the World Health Organization declared COVID-19 a global pandemic in March 2020, over 150 countries closed educational institutions (UNESCO, 2020). A quick solution to mitigate missed in-person instruction was to transition to a “remote” learning space using digital innovation. While remote learning can offer access to new resources and self-directed learning opportunities, it can also pose pedagogical and accessibility challenges. This article explores educators' experiences with remote learning and the digital inequities faced by students in vulnerable and disadvantaged communities. I also reflect on the various ways digital tools were used to facilitate remote learning in my own instruction. Reporting on these frontline experiences recognises digital innovation in education and addresses the need for equitable access to technology.

## A new learning space

The unprecedented shift to remote learning in response to the pandemic meant educators were tasked with redefining the learning experience. A lecture class, known for meeting in-person to explore new topics and engage in collegial discussions, looked different when moved online. The notion of a campus experience could not be replicated from a distanced space at home. As Rivett (this issue) notes, COVID-19 prompted a new learning experience relying on technology for a sense of community and offering an opportunity to explore a new vision for education in the context of a digital learning space.

When imagining a classroom, one might picture educators and students huddled around tables dissecting texts and frogs. This “traditional” classroom is located within the confines of the campus grounds. Educators may use hands-on learning experiences to assess student understanding through body language and voice. This in-person learning space offers socialisation, individualised attention and regulated resources to engage all learners. Study groups and office hours may also be available to encourage camaraderie and continued learning beyond class meetings.

When developing learning in-person, educators can choose technology to connect material to real-life applications making information more easily available (Hassel B.C. & Hassel E.A., 2012). Technology can be used to enhance instructional practices that promote student engagement, motivation and performance (Edyburn, 2013; Howland et al., 2011). How educators make use of technology to enrich the learning experience varies in different contexts. In a mathematics classroom, digital tools (calculators, simulation software, virtual manipulatives) can be used to assist students with visualising concepts, organising and analysing data, and communicating reasoning and problem-solving (National Council of Teachers of Mathematics, 2014). Technology may be used to open doors to a digital landscape where students can learn to research, apply and communicate knowledge with other digital citizens across the globe (Groff, 2013).

With the rapid transition to remote learning, educators were forced to make pedagogical shifts to a digital learning space that required technological integration. Positioning remote learning in the context of a digital learning space, highlights the complexity of the term. It is often used interchangeably with online, distanced, blended, e-learning and other terminology categorised under digital education (Hodges et al., 2020; Moore et al., 2011). With remote learning, educators and students engage with one another without physically being in the classroom. The remote setting requires information to be shared through technology in synchronous, asynchronous or hybrid formats. In a synchronous format, students and instructors communicate in real-time. In an asynchronous format, students engage in self-guided learning activities independent of the instructor.

### **Learning beyond boundaries in school**

While conducting a case study with phenomenological interviews with New York City educators during the 2019-2020 academic year of the pandemic (see Moldavan et al., 2021), I was repeatedly told that remote learning disrupted teaching routines. While technology had initially been used in the classroom to assist students in developing higher order thinking skills, technology had to be reimagined not as an add-on but a foundation from which to build a learning environment. This new learning space presented opportunities for improved instruction as well as pedagogical and accessibility challenges.

For those who had access to technology, bridging the school to home life was a little easier than for those whose home settings were not set up for digital learning (device access/sharing, limited internet). The American Community Survey conducted in 2019 reports 88% of school-age children have home internet access through a computer, 6% have access only through a smartphone and 6% do not have internet

access (National Center for Education Statistics [NCES], 2020). With approximately 56.6 million school-age students in the United States, roughly 6.8 million students do not have access to a computer or lack internet access at home (NCES, 2020). The percentage of students without internet access is higher among those living below the poverty threshold, in cities and remote rural areas, and lower for students in suburban areas (NCES, 2018). Additionally, creating a digital learning space at home can be challenging for those without quiet settings, who have caregiving responsibilities or who lack the support of parents.

To reduce digital inequities, many schools gave students devices (Chromebooks, iPads) and worked with service providers to secure affordable internet in areas that lacked the infrastructure. Educators often used video technology to record themselves lecturing so that students could watch at times that suited family schedules. Students received guided notes and asynchronous tasks to provide enrichment. Learning management systems (Google Classroom, Blackboard) were used to give assignments and provide graded feedback. Chat and video conferencing platforms (Zoom, Google Hangouts, Skype) were used to complete synchronous tasks and host office hours for individual and small group support.

Educators shared experiences of digital innovation and concerns for teaching new content in a remote setting. Many educators revised curriculum prioritising review of previously learned material to build students' confidence while learning at home. Students could thus experiment with new technologies and develop new routines for study. Existing curriculum guides gave limited time to develop digital modules and ways to hold students accountable for remote learning. Students shared with educators stories of feeling isolated, disconnected and not fully supported. They missed hands-on activities and personal interactions with peers. Many educators witnessed student resistance to and disengagement in learning. Some students struggled with using technology or were easily distracted by other factors, such as study environments and family stress.

As COVID-19 changed the landscape of education, many teachers received limited professional development to transition instruction to remote learning. When such support was not accessible, educators learned on the job. While no one could have anticipated a global pandemic, professional development prior to the transition could have better prepared educators for a digital era. Many educators shared how they would have benefited from training with learning management systems. Training that addressed ways to (a) establish virtual classroom norms and behaviour management, (b) promote virtual participation and student engagement and (c) make use of compatible digital tools to

enhance learning outside the classroom would have eased the transition.

### Digital space in Higher Education

I teach methods courses in New York City to prepare educators for teaching. Prior to COVID-19, each course met in-person for lecture, hands-on activities, collaborative projects and peer presentations. I organised each class with research-based lectures and student-led tasks facilitating exploration, discussion and reflection. Tasks often required the use of tangible resources and lab equipment to develop skills and knowledge. These were used by students in presentations and demonstrations.

When my institution closed its doors to in-person instruction, I adopted a remote learning model where I blended synchronous and asynchronous instruction. I used web-based software and video conferencing platforms (Zoom, Google Drive) to interact with students in real-time. These platforms allowed students to participate in chats and breakout room discussions, share screens, annotate on whiteboards and receive immediate feedback from peers and the instructor. Outside virtual meetings, students accessed self-guided learning modules and assignments on Blackboard and participated in discussion board posts that fostered an online community of inquiry. This allowed students to collaborate with one another through critical reflection (Garrison, 2007). Students were responsive to the digital learning space I created, noting how it “became more accessible.” One student said: “I could complete the asynchronous work at my own pace, watch the video tutorials multiple times and build on my peers’ ideas in the discussion posts. Then, I could check for understanding during the synchronous instruction.” Another shared how the variety in learning formats encouraged her to interact with the content and her peers, which increased her motivation to stay engaged.

While I missed the interaction of in-person instruction, I found remote learning enhanced student participation in the course. I used asynchronous modules as a flipped instruction model to move lectures and research outside of the class meeting, leaving more time for student-led activities and discussions during synchronous instruction (Clark, 2015). The breakout room feature of Zoom allowed me to place students randomly or strategically in small groups to share ideas. This encouraged student engagement with peers, whom they might not normally “sit” next to during class. This allowed students to learn from each other, rather than see the instructor as the expert (Chandler, 2016). I could join the breakout rooms to offer support and monitor the discussion for assessment.

This success in facilitating remote learning was possible because students and I had access to the necessary

technology. We gave each other flexibility in learning how to navigate a digital space. While our sudden exit from campus felt like running across a tightrope without a safety net, we learned from each other’s experiences to provide appropriate support with the challenges and inequities we experienced when our physical learning space on campus was removed. Technology cannot replace the experience of learning on campus nor foster the same sense of community, but it encouraged me to rethink what it means to be connected, both physically and digitally, when teaching. I spent countless hours familiarising myself with the technical features of various digital tools. I obtained training on how to effectively design and implement virtual instruction to support learners’ needs. My responsibility to deliver quality instruction in a learning environment that had to be accessed by students in different geographical locations did cause me great stress but also opened possibilities, as Rivett (this issue) notes.

### Building equity into technology initiatives

There are benefits to using technology in education, but this can exacerbate inequities (Ferlazzo, 2020; Tichavakunda & Tierney, 2018; Young & Noonoo, 2020). Research has examined the impacts of the digital divide, associated with the gap in access to digital tools and the knowledge to use tools to support learning (Dolan, 2016; Fulton & Sibley, 2003; Gorski, 2005; Puigjaner, 2016). Despite advocacy efforts to ensure digital equity in terms of both physical access (computer hardware, software, internet) and knowledge access (technological skills, user confidence), securing resources and support can be challenging, especially in vulnerable and disadvantaged communities.

The following recommendations are offered for building equity into technology initiatives to benefit all learners: (a) ensure user access and training to use technology effectively; (b) set high expectations and meaningful learning opportunities using digital tools; (c) support the social-emotional needs of users engaged in remote learning by offering social networks for sharing experiences; and (d) promote reform recognizing digital inequities to support vulnerable and disadvantaged communities. Stakeholders must leverage the frontline experiences of those navigating digital innovation and inequities to ensure technology for equitable education.

## References

- Chandler, K. (2016). Using breakout rooms in synchronous online tutorials. *Journal of Perspectives in Applied Academic Practice*, 4(3), 16–23.
- Clark, K. R. (2015). The effects of the flipped model of instruction on student engagement and performance in the secondary mathematics classroom. *Journal of Educators Online*, 12(1), 91–115.
- Dolan, J. (2016). Splicing the divide: A review of research on the evolving digital divide among K–12 students. *Journal of Research on Technology in Education*, 48(1), 16–37.
- Edyburn, D. (2013). Harness the potential of technology to support the academic success of diverse students. *New Directions for Higher Education*, 2011(154), 37–44.
- Ferlazzo, L. (2020 March 23). What is and is not working as educators transition to online learning. *Education Week*.
- Fulton, K., & Sibley, R. (2003). Barriers to equity. In G. Solomon, N. Allen, & P. Resta (Eds.), *Toward digital equity: Bridging the divide in education* (pp. 14–24). Allyn & Bacon.
- Garrison, D. R. (2007). Online community of inquiry review: Social, cognitive, and teaching presence issues. *Journal of Asynchronous Learning Networks*, 11(1), 61–72.
- Gorski, P. (2005). Education equity and the digital divide. *AACE Journal*, 13(1), 3–45.
- Groff, J. (2013). Technology-rich innovative learning environments. *OECD CERl Innovative Learning Environments Project*.
- Hassel, B. C., & Hassel, E. A. (2012). Teachers in the age of digital instruction. In C. E. Finn, Jr., & D. R. Fairchild (Eds.), *Education reform for the digital era* (pp. 11–33). Thomas B. Fordham Institute.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020 March 27). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*.
- Howland, J. L., Jonassen, D., & Marra, R. M. (2011). *Meaningful learning with technology*. Pearson Education.
- Moldavan, A. M., Capraro, R. M., & Capraro, M. M. (2021). Navigating (and disrupting) the digital divide: Urban teachers' perspectives on secondary mathematics instruction during COVID-19. *The Urban Review*. <https://doi.org/10.1007/s11256-021-00611-4>
- Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education*, 14(2), 129–135.
- National Center for Education Statistics. (2018). Student access to digital learning resources outside of the classroom. U.S. Department of Education, Institute of Education Sciences.
- National Center for Education Statistics. (2020). Children's internet access at home. U.S. Department of Education, Institute of Education Sciences.
- National Council of Teachers of Mathematics (NCTM). (2014). *Principles to actions: Ensuring mathematical success for all*. NCTM.
- Puigjaner, R. (2016). Progressing toward digital equity. *HAL Open Archives*.
- Tichavakunda, A., & Tierney, W. G. (2018). The “wrong” side of the divide: Highlighting race for equity’s sake. *The Journal of Negro Education*, 87(2), 110–124.
- UNESCO. (2020). *Education: From disruption to recovery*.
- Young, J. R., & Noonoo, S. (2020 March 5). Education world reacts to coronavirus: The latest developments. *EdSurge*.

# “Making Visible” Inequality: Remote Learning with Technology During COVID-19

 **Helen Crompton**, Associate Professor of Instructional Technology, Old Dominion University, USA

 crompton@odu.edu

 **Katy Jordan**, Research Associate, EdTech Hub / University of Cambridge, UK

 klj33@cam.ac.uk

 **Samuel Wilson**, Research Assistant, EdTech Hub / Overseas Development Institute, UK

 samuelwilson@edtechhub.org

 **Susan Nicolai**, Director of Research, EdTech Hub / Overseas Development Institute, UK

 susan@edtechhub.org

## Summary

In this paper, we explore the inequities laid bare through the heavy reliance on technology to support learning during the COVID-19 pandemic. Drawing on systematic reviews, we look at mitigation strategies and identify gaps in understanding.

## Keywords

Inequity  
Equity  
Systematic Review  
Learning Losses  
COVID-19

The United Nations Economic and Social Council described the COVID-19 pandemic as “the worst human and economic crisis of our lifetimes” (ECOSOC, 2020, p. 2). COVID-19 has caused disruption in all aspects of life, affecting students worldwide who are no longer able to study in the familiar milieu of school buildings. UNESCO (2020a) reports that education has been disrupted for 94% of students in developing countries and 99% of students in developed countries with tremendous learning loss.

This may be as damaging as COVID-19. Save the Children estimate that, post-COVID-19, approximately 24 million students will never return to school (UNESCO, 2020b). While the magnitude and impacts of this pandemic are unparalleled, the opportunities to interact have been more favourable than in any pandemic documented in history due to the availability of digital technology. While technology was welcomed by many teachers and students, drawing on technological affordances for learning, digital inequities were also apparent. Rivett (this issue) shows a process of “making visible” inequity. What issues does this raise for mitigation strategies and considerations for a post-COVID-19 educational landscape?

## Digital inequity is complex and multi-faceted

COVID-19 has exposed and accentuated the harsh realities of being unconnected in a highly connected world. Digital inequity extends far beyond the dichotomous digital divide of those that have the technology and those that do not. Digital inequities are associated with:

- Technology access (hardware/software ownership, age and level of quality, time on shared devices)
- Internet infrastructure (continuous, stable access to the internet at a high enough speed to perform tasks in a timely manner)
- Digital literacy (autonomy in using technologies)
- Digital freedom (unrestricted choice in using technology and accessing content)
- Gender (equal access regardless of gender)
- Technical support (access to peers for support in the use of technology)

This non-exhaustive list of inequities involves many binaries but also highlights how inequities combine. For example, students who have less access to hardware at home than their peers, may also have fewer digital literacy skills because of limited experience. The lack of technology can also go together with limited internet infrastructure; 49% of children in Sub-Saharan Africa are unreachable by digital and broadcast learning (UNICEF, 2020). If a student has a problem with an internet connection or services, phone help may be given, but that support may be harder to obtain and act on without advanced technology skills.

As schools attempt to mitigate these inequities, some inequities are harder to overcome. Digital inequities are embedded in culture, economy, education and social context. A study conducted in Palestine found that the population perceived learning online to lack value, hence there was a great reluctance in continuing education through this modality (Shraim & Crompton, 2020). Moreover, many of the girls in Palestine were banned from using the internet without an adult present.

### Mitigation strategies

Scholarly findings of remote learning with technology during COVID-19 are reported by the Building EdTech Evidence and Research (BETER) group, funded by EdTech Hub. A systematic review was conducted of scholarly literature on student learning and support for teachers (Crompton et al., 2021a; Crompton et al., 2021b). The review noted accessibility related to devices, internet, eStorage and study space, the level of digital literacy and e-readiness. A mitigation strategy that emerged centred on developing partnerships. In Lebanon, Palestine and Jordan

where internet access was limited, the use of non-digital technologies, such as basic television and radio, was reported. The majority of studies were conducted in the global North with little information to support stakeholders in the global South with solutions. Jordan (2020) conducted a thematic analysis on “grey literature” examining blog posts, opinion pieces, briefing reports and rapid literature reviews. Access was the most prevalent theme with a focus on connectivity to hardware, the internet and digital inequity.

Inequalities were frequently acknowledged and discussed in the literature, but few studies sought to tackle this issue head on and propose changes. More information gathering is needed from many different directions including multilateral and bilateral organizations, non-governmental and governmental organizations, supported by companies and individuals.

### References

- Crompton, H., Burke, D., Jordan, K., & Wilson, S. W. G. (2021a). Learning with technology during emergencies: A systematic review of K-12 education. *British Journal of Educational Technology*, 52(4).
- Crompton, H., Burke, D., Jordan, K., & Wilson, S. (2021b). Support provided for K-12 teachers teaching remotely with technology during emergencies: A systematic review. *Journal of Research on Technology in Education*, 1-16.
- ECOSOC, (2020). *Progress towards the Sustainable Development Goals: Report of the Secretary-General*. United Nations Economic and Social Council.
- Jordan, K. (2020). View of COVID-19 school closures in low- and middle-income countries: Emergent perspectives on the role of educational technology. *Journal of Learning for Development*, 7(3), 399–415.
- Shraim, K., & Crompton, H. (2020). The use of technology to continue learning in Palestine disrupted with COVID-19. *Asian Journal of Distance Education*, 15(2), 1-20.
- UNESCO. (2020a). *School closures caused by Coronavirus (COVID-19)*. UNESCO
- UNESCO. (2020b). *COVID-19 education response: How many students are at risk of not returning to school?* UNESCO.
- UNICEF. (2020). *COVID-19: Are children able to continue learning during school closures?* UNICEF.



# Teachers' Digital Agency and Pedagogy during the COVID-19 Crisis in Delhi

 **Kusha Anand**, Research Fellow, UCL Institute of Education, UK

 k.anand.14@ucl.ac.uk

 **Marie Lall**, Professor of Education and South Asian Studies, UCL Institute of Education, UK

 m.lall@ucl.ac.uk

## Summary

This article discusses the digital agency of 110 Delhi government schoolteachers during the COVID-19 pandemic. It provides insights on how home/indoor spaces affected the digital pedagogies used across Delhi government schools. Teachers' voices revealed loopholes in the online education system as well as discussing some positive aspects of offline teaching and blended learning.

## Keywords

Teachers  
COVID-19  
India  
Pedagogy  
Agency

*Online learning may not be a solution, but it is a necessity today, I urge all school principals to fully commit to it.*

*The biggest problem with online education was its digital divide between those who have access to technology and those who don't. The Delhi government's remote teaching-learning plan is learning with a human feel.*

- Manish Sisodia, Deputy Chief Minister of Delhi also responsible for education, July 2020

In these complex times of the pandemic, the "human dimension" of education becomes more rather than less important. This article provides insights on how home/indoor spaces and technology-aided instruction were affecting the digital pedagogies used across Delhi government schools. It looks at how teachers' engagement with technology has affected their digital agency and epistemic practices. This article draws on issues faced daily by 110 schoolteachers (interviewed over Zoom in July and August 2020) from across Delhi, recording their efforts to connect with students during phases of online teaching at a time of social distancing.

## Teacher digital agency

Due to the desire to guarantee an educational experience through standardisation, the emphasis on competition (rather than collaboration and collegiality) that drives education policy is likely to produce worse rather than better educative outcomes for students (Mockler & Groundwater-Smith, 2018). Teachers are key in mitigating the negative impacts of digital education. In India – as in many other countries in early 2020 – it was simply assumed that teachers would be able to transfer their pedagogy online. However, for them to be successful in this new dimension of their job, teachers need to have digital agency. Digital agency provides a conceptual framework for examining the ways that people can engage with technology in a "meaningful and



capital enhancing way”, as opposed to merely “functioning with technology” (Pearce & Rice, 2017, p. 2). Digital agency consists of digital competence, digital confidence and digital accountability and is the individual’s ability to control and adapt to a digital world. It promotes awareness and interplay between teachers and digital artefacts or technologies (Passey et al., 2018). This article offers insights on the pedagogical issues associated with teachers’ engagement in online teaching that affected their digital agency.

### March 2020 – Delhi, India

As the pandemic struck India in 2020, government schools were instructed to go online so that teaching and learning could continue during the lockdown. The increased use of digitally based educational activity left many students and teachers in the chasms of the digital divide (access, equity, inclusion). Not all teachers are the well-connected, savvy digital natives that the rhetoric around teachers and technology in India would have us believe. Instead, there was significant variation in the ways that teachers could access, navigate, and use digital artefacts or technologies. Using the Passey et al. framework (Figure 1), this article examines issues faced by the respondents.

#### Teacher digital accountability: spatial issues

Digital accountability includes responsibility for oneself and others regarding one’s digital actions, knowledge of the digital world and its ethical issues, understanding concerns and ensuring security and privacy, and understanding the impact of digital activities (Passey et al., 2018). Being in lockdown and working from home, spatial and temporal relations between teachers and students/families changed. Teachers shared that there are many distractions – the conversations between family members in the same room, family members approaching them for personal work and other issues such as the use of mobile phones impacted their digital accountability. Many teachers described the overall experience as “awkward” or “less accountable”. When asked about privacy and space-related issues, a few teachers shared that some parents sometimes “peep in”, “record the lectures” or “take pictures”. Some of them also shared that their family members sometimes watch them teach, record videos or access students’ records. A teacher shared that her digital classroom is in the “pooja [prayer] room with all textbooks and notebooks [taken in] only after my mother-in-law finishes her prayer.” Due to spatial issues, teachers noted low levels of personal capacity, acting with low digital responsibility towards themselves and their students.

#### Teacher digital competence: resources or artefacts

Digital competence is the ability to navigate the digital world or resources safely and effectively (shown in Figure 1 as embracing digital literacy and skills). Digital resources (such as hardware, software and infrastructure) not only

function based on the intentions programmed into them (i.e., “delegated” agency); but they can also be “perceived as having need-based agency” (Rozendaal et al., 2019, p. 25) by their human counterparts (such as teachers). This can be explained as the use of digital technologies in ways that may encompass or enrich their users’ capacities, or even let users design novel ways of dealing with tasks that might alter the nature of the activity. The technologies can offer boundaries and structure to activities, shaping the nature and limitations of the activity. These “affordances” and “constraints” can be facilitating and complementary as learners use them “tenaciously”, however they do not exist as “absolutes”, or “entities with power of their own” (Fisher et al., 2006, pp. 2-3).

In Delhi, there were several sets of digital resources offered by the National Council of Educational Research and Training (NCERT) and the Central Board of Secondary Education (CBSE). The content of government material includes the NCERT-issued [Alternative Academic Calendar](#), videos of teaching, digital editions of textbooks and links to other such material. Teachers shared that the Directorate of Education (DoE) of the Government of Delhi launched a blog targeting primary teachers and students across the 449 Sarvodaya Vidyalayas [Government schools]. The blog uploaded weekly worksheets in various subjects and there are separate blogs for teachers of English and Maths; however, teachers found it hard to engage with these resources online (in digital spaces). Most respondents shared that they are teaching online without proper training and consequently faced problems in using digital tools and the resources offered for teaching (breakout rooms or interactive boards in Google Meet or Zoom). A few respondents shared that they used tools such as WhatsApp to divide their students into groups – the ones owning smartphones and those with cell phones. They used WhatsApp groups and text messages (SMS) to reach out to both groups. One of the respondents shared her experience of using WhatsApp for teaching, saying, “I can now use WhatsApp, share files, making group video calls or a broadcast group.” Another participant echoed this, “the WhatsApp features are difficult, and it took time to learn video calls but now I use it to send worksheets and mark the students.” When students do not have access to phones, teachers call parents and distribute worksheets or homework for a week. Teachers shared that teaching through digital resources or tools had been reduced to “one-way delivery”, with “little or no personal contact”, no method of “checking who’s getting it and who’s not”, “no engagement”. When asked about current training initiatives on navigating or handling digital tools or resources, a respondent said, “These online trainings just focus on the role of parents, and content and learning outcomes, and ask us to use the E-pathshala and Diksha, but we don’t know how to teach.” Teachers also perceived involving students and their parents with digital

technologies as an additional challenge. Teacher digital competence thus plays an important role not only in handling the digital resources but also in using them confidently in the enactment of curriculum to meet the different needs of students.

#### **Teacher digital confidence or skills: self-efficacy**

Digital confidence is the foundation of digital autonomy, for taking control of social changes arising from uses of digital technology. Digital skills are a core building block for digital confidence and agency (Passey et al., 2018). Digital confidence is complex and multifaceted; it is not just about having skills to use technology and software. It is also about having the confidence to use skill and knowledge levels to navigate other digital domains in a transferable manner in an agentic way (Passey et al., 2018). Many respondents reported teaching using digital resources as “useless”, “exhausting” and a “demotivating” experience. Some teachers reported that online teaching requires more effort, autonomy, and skills but that “hardship” is not recognised by the headteachers. The continuous external distractions due to noise from the neighbourhood or interruption by family members during teaching had an adverse effect on the continuity of sessions and teachers’ level of confidence. A few teachers were not comfortable and confident to teach some sessions online particularly those involving numerical experiments and personal interaction. Language teachers explained that in face-to-face teaching, language difficulties are mitigated because they use bilingual communication to address students’ doubts and queries. While teaching in a real classroom, the physical involvement of sight and sound becomes an effective medium for the teacher to express him/herself confidently and to gauge the level of students’ understanding, while the virtual medium lacks this direct contact. Whether it is a play or a poem, the expression of the teacher and voice modulation matters because it adds meaning to the written content. Maths and science teachers expressed a low level of confidence to teach without chalk or experiments in the laboratory. Teachers shared that the instant assessment of students’ understanding becomes difficult although there are online tools that can be used after a concept or topic is taught, rather than simultaneously. The respondents mentioned the virtual mode can never compensate for the physical mode of interaction involved in classroom teaching. Teachers thus shift their emphasis on “tricks” or “important questions” to remember for success in an examination rather than conceptual understanding (or critical thinking).

#### **Conclusion**

Teachers’ voices revealed how they use and handle digital resources or tools to meet the varied needs of their students. Digital infrastructure (including external distraction or family interruption) in Delhi is in tension with the professionalism, accountability, and efficacy of teachers, as well as the overall purpose of education. Unlike the article on digital higher education (Rivett, this issue), students’ perceptions of their learning were not noted. Digital agency is reliant on teachers’ digital competencies and confidence; however, online teaching in India restricts the prospects for teachers to get the right alignment between the needs (of both students and teachers) and the opportunities provided by digital technologies. Reflections on the epistemological and ontological implications of digitisation and online classroom practices are needed as many countries see this mode as a key part of the future of education.

#### **References**

- Fisher, T., Higgins, C., & Loveless, A. (2006). [Futurelab-teachers learning with digital technologies: A review of research and projects.](#)
- Mockler, N., & Groundwater-Smith, S. (2018). *Questioning the language of improvement and reform in education: Reclaiming meaning.* Routledge: New York.
- Passey, D., Shonfeld, M., Appleby, L., Judge, M., Saito, T., & Smits, A. (2018). Digital agency: Empowering equity in and through education. *Technology, Knowledge and Learning*, 23(3), 425-439.
- Pearce, K., & Rice, R. (2017). Somewhat separate and unequal: Digital divides, social networking sites, and capital-enhancing activities. *Social Media and Society*, 3(2), 1-16.
- Rozendaal, M. C., Boon, B., & Kaptelinin, V. (2019). Objects with intent: Designing everyday things as collaborative partners. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 26(4), 1-33.



# “Why is it speaking to me?”: Refugee-background Students’ Experiences of Education

 Jáfia Naftali Câmara, Doctoral researcher, University of Bristol, UK

 jafia.camara@bristol.ac.uk

## Summary

Exclusionary immigration and education policy and practice have further marginalised asylum seekers and refugees in England. They have struggled to access digital devices, broadband and language support during remote schooling. According to young people interviewed for this study, schools have communicated poorly with students and their families throughout lockdown.

## Keywords

Technology  
Education  
Refugee  
Asylum Seeker  
COVID-19

When schools closed for most pupils during England’s first lockdown in 2020, the UK Government required teaching and learning to move online. However, access to digital devices and broadband is not equal for everyone. Many young people, living without access to a laptop, desktop or tablet at home (Vibert, 2020) had difficulty accessing remote learning, rendering them unable to keep up with the curriculum. There are significant differences in access to the internet even within England. The London area has the highest rates of access, and the north-east has the lowest with 12.1% of the population classed as non-internet users (ONS, 2019). The government had not fully taken into account the digital divide nor planned for providing technology to the more than [1.14 million children](#) living in the UK without access to digital resources (Vibert, 2020). Although COVID-19 exacerbated issues of access to remote schooling, these barriers to learning are not new.

Asylum seekers and refugees (ASRs) have long experienced limited digital mobility and segregation associated with a digital divide. When the Department for Education (DfE) launched the “get help with technology programme” it came with various limitations and exclusions (DfE, 2020). There was no specific plan to support underprivileged communities, such as ASRs, negatively impacted by immigration and education policies. The DfE’s provision of technology was based on young people’s [eligibility for free school meals](#) (DfE, 2021a). However, asylum-seeking families are not eligible for free meals because they have “[no recourse to public funds](#)” (NRPF, n.d.), preventing their access both to much-needed technology and food (Coram, 2018; Câmara, 2020). Asylum seekers are forbidden to work and are “subject to [immigration control](#),” meaning that they cannot claim public funds as defined by the Immigration and Asylum Act and the [Immigration Act \(2014\)](#). The government has since “temporarily extended free school meal [eligibility](#) to include some children of groups who have no recourse to public funds” allowing asylum-seeking families to access some free school meal vouchers (DfE, 2021b). Lack of access to reliable internet connection is consistent with other pre-existing offline inequalities experienced by ASRs in England.

In my work with ASR families, many cannot afford to pay for consistent and reliable access to internet at home, computers, laptops, tablets or even a phone with data. An asylum-seeking family I have worked with shared with me that their only internet connection was their mobile phone data (Câmara, 2020). The single device was shared between the mother and her two children who used it for all their remote schooling. In addition to not qualifying to receive much needed free school meals, the family struggled to continue their remote education using a single phone with limited data. Their dependence on the phone data to access online education meant that the data was used up more quickly than the mother could afford. Additional costs of this type are especially difficult for asylum seekers who receive a limited [weekly allowance of £39.63](#) to pay for all their expenses (UKVI, 2021).

### Digital inequalities and language barriers during remote schooling

Three ASR families participated in my study. They all faced challenges to access digital devices through their schools. In 2020 I received various messages from students and parents asking how to access digital devices:

*“Hello, miss, how can I get a laptop please? Can you ask them [the school]?”*

*“Miss, can I ask you something? Can you get for me a computer from the school? Because if you get for me computer, I can email you from the computer I want to finish my homework in the computer.”*

*“I need help with my homework. I have internet but I don't have computer.”*

*“Can you ask them for my [laptop] please?”*

Only one of the three ASR families I worked with received laptops from their school. But in this household with four young people, only one received a laptop. Each family was able to access a digital device at home several months into the lockdown because I purchased devices for them. One young man told me that he felt “angry not having access to a computer at home during lockdown” and that “it was difficult using just a phone to do homework like not able to type fast with a phone and access some homework that the teachers sent.”

The accounts described above illustrate some of the barriers faced by ASRs to continue their remote learning. They demonstrate how their schools have limited communication with homes and communities. The young people and their families contacted me to ask how to access digital devices because they did not know who or how to ask for support. After schools closed for most students, parents did not

receive clear instructions about online learning and were not asked if they had digital devices or what kind of support they needed to continue studying remotely. A mother told me that when the government decided not to reopen schools in January 2021, her children's school never contacted her to explain how her children could access remote schooling. She found out how to access education for her children after she called the school to ask them. Luckily, she speaks English and feels more confident contacting the school unlike the other two mothers I was working with.

One Arabic speaking mother said she hopes that “in Britain they can employ people from both languages so that the parents do not feel that they do not understand or know anything about the situation of their children, especially since there is a big difference in teaching between the countries.” Stewart (this issue) argues that there have been “severe inequalities in parental support for home education within and across countries” due to inequality in parental education which impacted parents' ability to contribute to their children's education. However, in the case of refugee-background families, even academically educated parents struggle as there are issues related to language and different educational systems. Expectations may not be clearly communicated to parents. Parental involvement is fundamental to students' learning and education systems “should aim to [strengthen engagement](#) between schools and parents” (OECD, 2020). One young man has struggled to do his Engineering assignments because he has difficulty understanding what his teacher says on pre-recorded videos. As his mother does not speak sufficient English and does not feel confident using the internet to help him complete his assignments, he has often asked me for support. This family has reached out to their school seeking further assistance but has not heard back. The English education system must do more to reach out to immigrant families and involve them in school life.

Another family requested the school to allow their children to attend lessons in person at least twice a week because they are still new to English and have struggled to complete their schoolwork without support from the school. Unfortunately, the school rejected their request saying that only the children of key workers could attend face-to-face lessons. The government relaxed the definitions of “vulnerable” children in 2021 to include students “who may have difficulty engaging with remote education at home (for example due to a lack of devices or quiet space to study).” English as an Additional Language (EAL) learners are “vulnerable”; the Welsh government (2020) published guidance on who could access school classed as vulnerable to include “learners from minority ethnic groups who have English or Welsh as an additional language (EAL/WAL).”

## Digital literacy

The ability to access and use digital services is always vital in our increasingly digitalised world, but especially relevant for accessing remote schooling and other essential services during COVID-19. When my research shifted to an online mode, it soon became clear that the digital divide is also about inequality in digital skills (van Dijk, 2005; Hargittai and Hinnant, 2008).

As part of my research and commitment to supporting asylum-seekers and refugees as much as possible, I have dedicated some time most weeks to help young ASRs use their digital devices and the internet to improve their learning experiences. After one of my research participants accessed his first personal laptop, we agreed that I would help him and his family set it up, install and practice using software needed for school such as MS Teams. During one of our meetings, conducted over the phone, he asked me “why is it [laptop] speaking to me? I don’t like it.” He was referring to Microsoft’s productivity assistant, Cortana, which had been activated unintentionally. As he tried to silence it, he asked: “How do you turn it off?” This young man had had some computer lessons at his school before but said that he “didn’t understand anything” and did not learn practical digital skills that could ease his transition from face-to-face to remote schooling.

After accessing digital devices and wifi at home, young ASRs and their parents have had to learn how to use technology with minimum support from schools and DfE. The OECD found that parents might “feel incapable of supporting” their children due to “[lack of digital skills](#)” (2020). During my conversations with young ASRs and their families, it emerged that they would have benefitted from more digital literacy before and during remote schooling. The young man, whose experiences inspired the title of this text, asked me how to create Word documents, convert them to PDF and attach them to e-mail messages as required by some of his teachers. He has had to overcome many digital challenges in addition to trying to cope with remote learning.

## Conclusion

Rivett (this issue) argues that technology can be an enabler for teaching and learning. While this is true, technology can only be an enabler for teaching and learning if students and their families have the appropriate access to technology and digital literacy necessary for optimum learning. Access to information, goods and services have become increasingly digitalised. Therefore, broadband and digital devices are essential resources. Discussions and policies about the digital divide should focus on how people develop digital literacy and skills to get the most out of technology. Remote schooling provision in England has assumed that all students and their families have equal access to technology and English language proficiency at home. In societies with linguistically diverse immigrant populations, it is crucial for schools to provide interpreters and translation of materials to support young people’s education and build stronger relationships with parents and carers. “Vulnerable” communities such as ASRs are often portrayed as harder to reach, especially during a pandemic. But it is not so much that “vulnerable” communities are “hard to reach” but that resources and opportunities are out of their reach.

## References

- Câmara, J. (2020). "The government gives me £35 a week to buy food... During the lockdown, my kids do not receive free school meals." <https://www.opendemocracy.net/en/opendemocracyuk/the-government-gives-me-35-a-week-to-buy-food-during-the-lockdown-my-kids-do-not-receive-free-school-meals/>
- Coram. (2018). *Free school meals for undocumented children in England: a response to the Department for Education*. Children's Legal Centre.
- Department for Education. (2021a). *Laptops and tablets data as of 12 January – Ad-hoc notice – laptops and tablets for disadvantaged and vulnerable children*.
- Department for Education. (2021b). *Coronavirus (COVID-19): temporary extension of free school meals eligibility to NRPF groups*.
- Department for Education. (2020). *Get help with technology during coronavirus (COVID-19)*.
- Hargittai, E., & Hinnant, A. (2008). Digital inequality: Differences in young adults' use of the Internet. *Communication Research*, 35(5), 602–621.
- NRPF (n.d.). *Immigration status and entitlements. How immigration status affects eligibility for public funds and other services*.
- OECD. (2020). *What is the impact of the COVID-19 pandemic on immigrants and their children?*
- Office for National Statistics (ONS). (2019). *Exploring the UK's digital divide*.
- UKVI. (2021). *Asylum support*.
- van Dijk, J. (2005). *The deepening divide: Inequality in the information society*. SAGE Publications.
- Vibert, S. (2020). *Children without internet access during lockdown*.
- Welsh Government. (2020). *Guidance for supporting vulnerable and disadvantaged learners*.






# Part 3

## States

# COVID-19, Institutions and the State: Knowledge partnerships for social justice

 **Adam Habib**, Professor and Director, School of Oriental and African Studies, University of London, UK

 ah130@soas.ac.uk

## Summary

The lesson of the COVID-19 pandemic is that our transnational challenges require us to cohere if we are to survive as a species. This requires a new methodology of global partnership rooted in institutions. This entails joint teaching, co-curriculum, split-site scholarships and co-financing and co-ownership of research centres in the developing world between universities in the North and South.

## Keywords

Knowledge  
International Partnerships  
Equality  
Social Justice  
Agency

We live in interesting, but dangerous times. Our world today is as unequal as it was before World Wars I and II. We are increasingly becoming as socially and politically polarized as we were then. Right wing populist and nativist parties stalk all our lands, deepening divides among our communities both nationally and internationally. Political and economic elites are paralyzed about what to do or have been unable to marshal the will to undertake what needs to be done.

And yet what needs to be done is known. At the heart of the crisis today is the lack of social justice. We have taken millions out of poverty, but millions remain mired in misery. As important, if not more threatening, to our collective future, is inequality. So many have too little because so few have too much. This is the popular realization of our time and is why globalization has come under attack. Populist and nativist parties have been able to mobilize on the foundation of this resentment. But they, of course, have no answers as they propel us into a retreat to nativism and chauvinism of all kinds.

These circumstances are in many ways the result of a fundamental shift in the character of the state in the last 40 years. A state, as Max Weber (1919/2015) suggests, is a polity which has a monopoly on the legitimate – if not always uncontested – use of violence. Yet it also constructs its hegemony through means other than violence, in what Louis Althusser termed the ideological apparatus (Ferretter, 2006, p. 85). But as more recent understandings of the state have brought to the fore, it is not merely an instrument of the ruling class (Jürgen Habermas, quoted in Andrew, 2014, pp. 5-6), but can be an autonomous actor (Skocpol, 1999) or at least exhibit a relative autonomy (Poulantzas, 2014) acting independently of the immediate interests of the economic elite, even if it secures their long term interest through ensuring the reproduction of the private form of the accumulation regime. Perhaps the most dramatic recent evidence of this has been states' interventions in managing the post-2008 economic recession and effects of the COVID-19 pandemic in 2020 and 2021.

The evolution of the state under Margaret Thatcher and Ronald Reagan enabled an implementation of neoliberal economic and social policies over the next 30 years. This has had a particular import in education introducing competition, fees, specialization and a general marketisation effect. It has a transnational form, particularly in higher education, with differential fees for foreign students and a general commodification of university education. But this commodification is articulated in a language of partnership and solidarity, obfuscating its real effects and its enabling of inequality both within nations and globally.

The net effect has been a deepening of divides within and between nations which imperils the human community. Climate change, public health, energy, inequality, and social and political polarization are transnational challenges that require us to cohere and act as one. Only if we build bridges of human solidarity will we survive as a species. This is the central lesson emanating from the COVID-19 pandemic, which brings the principle of social justice to the heart of the global conversation. By doing so it creates the possibility – only a possibility – of enabling conditions for building one of the platforms for human solidarity that is so necessary in our world.

But this is not inevitable. Indeed, the pandemic has demonstrated both our collective strength and our central weakness. Our strength lies in our ingenuity, reflected in the scientific and technological revolution underway which has enabled the development of multiple vaccines in an unprecedented short time frame. Yet, COVID-19 has also revealed our central human weakness, manifested in the crude “we are first” response that has enabled a nationalism in the procurement and deployment of vaccines. This has occurred despite the repeated advice of the World Health Organisation and individual public health specialists that the key to bringing this pandemic under control is an equitable deployment of vaccines across the world: if some countries remain mired in the pandemic, none in our world are safe. We either defeat this virus collectively, or we succumb to its devastating social and economic consequences. How to do this is one of the defining questions of our era. It is as relevant to higher education as to other parts of human existence.

There is an important scientific rationale for acting collectively reflected in the work of Tania Douglas (2018), the chair in Biomedical Engineering and Innovation at the University of Cape Town, who died in March 2021. In her [TED talk](#) “To design better tech, understand context”, she laments the deployment of inappropriate technologies from the industrialized to the developing world. Prof. Douglas’s work points to the need to think of innovation that is contextually relevant. Understanding context requires an understanding of the social, political and economic features of a society. It highlights the need for interdisciplinary or transdisciplinary

work and the importance of considering marginalized groups, whose interests and concerns are often ignored. Only then, can we sustainably address our transnational challenges and advance social justice in our world.

Formulating and/or adapting technologies to the contextual circumstances of the developing world is a responsibility of all of us but needs to be led by institutions of the South. This is only one part of the challenge, which also requires establishing institutional infrastructure and developing the enabling human resource capabilities. We need more inventors, scientists, technologists, social actors, academics and students – in short innovators. For this to happen, we need enabling environments. We need adequately resourced and academically excellent universities and vocational colleges that train, research and innovate; companies that are entrepreneurial; incubators that can nurture new technologies and venture capital networks that can sponsor these initiatives.

At one level we recognize this. Our policies in the developed and developing world speak of the importance of inclusive, equitable and quality education. Yet we behave institutionally in a manner that deepens inequalities and institutional divides. Global partnerships, scholarships and mobility across the world are features of the globalisation era. Yet the brain drain not only persists, but has escalated dramatically, weakening institutions in many parts of the developing world.

This dynamic is not the only causal factor in the weakening of many African universities. They were irreparably damaged by structural adjustment policies in the 1980s, when international development agencies called for the prioritization of primary and secondary education, resulting in the underfunding of universities. The idea was that tertiary education would be located in the developed world. This policy was partially reversed in subsequent decades, but damage had been done. Our global partnership model has not fundamentally changed since the 1980s and rests on direct scholarships to talented individuals in the developing world to acquire tertiary education in Europe and North America. The assumption is that these students will return home. But the evidence of the last few decades is that this is not the case. When students move, life happens. They fall in love, they have families, they get jobs and stay in the Global North. At a conference on the African diaspora which I attended at the [African Union in Addis Ababa in 2019](#), Abdoulaye Gueye (2019) demonstrated that more than 80% of students do not return. This experience is typical of much of the developing world including India and China. China has reversed the trend only recently.

The corollary in the developing world is that institutions have been weakened, human resource capacities are not

developed and inclusive development is compromised. Some among us speak of brain circulation rather than brain drain, and the importance of remittances to the developing world. But, if we are honest, we would recognize that these are weak countertrends that do not fundamentally change the negative institutional and structural dynamics that accompany the brain drain.

I must stress that this is not only a problem for the developing world. It is as much a problem for the developed world. As human resource capacities decline in the developing world, so do our ability to deal with the structural challenges of our era. All our challenges are transnational in character. Climate change, inequality, public health, and social and political polarization have global consequences. The most dramatic example of this is the coronavirus which has become a global pandemic. We need the institutional infrastructure and human resources in both the developed and developing world to stem such challenges at their source, wherever they emerge. Yet our global partnership methodologies undermine this, in practice if not in intent.

I am not advocating for some autarchic retreat into nationalism, nationhood and ethnicity. I do not believe this is possible and I am of the view that the human spirit has simultaneously an impulse to wander and explore – to globalize – and to identify and familiarize – to localize. These are not mutually exclusive agendas as populist and nativist parties tend to suggest. We can love our families and community networks and still practice human solidarity. It is possible to be both local and global. Indeed, this is essential to survive as a species.

I am advocating a new methodology of global partnership, one that is more rooted in institutions than individuals. In higher education, this would require joint teaching programs, co-curriculum and split-site scholarships that would enable students to gain scientific knowledge, develop a global consciousness, have access to new equipment and funding networks, and yet be sufficiently rooted in institutions of the developing world to allow for this knowledge and skills to be deployed within local contexts. It may require co-financing and co-ownership of research centres and institutes between multiple universities in the North and South. Such a methodology would also allow students from the developed world to have the opportunity to visit and understand the contexts of the developing world, and to develop skills and knowledge that are more universally applicable.

This goes against the grain of the strategic plans of some universities in the developed world. Some of the more high-ranking institutions believe their brands would be diluted by joint teaching agendas and their mission is to train the scientists and knowledge brokers of our world. But they

delude themselves. Whatever their scientific strengths, however recognized their academic cohort may be, however talented their students are, their contributions are limited by institutional arrogance signaling that they matter more than others. In their legitimate desire to be competitive and through their chauvinistic protection of an institutional brand, they undermine their own mission. They have forgotten that great science needs to be accompanied by contextual understanding to have impact.

The economic elites who sit in Davos, or the researchers who sit behind laptops in the coffee shops of academic villages surrounding great universities of the developed world cannot, “on their own”, solve the challenges of our era. They need an understanding of the context of the developing world. This is only possible through global teams of researchers and institutions coming together, deploying collective knowledge, skill sets and understanding to develop contextually relevant technologies and solutions to the challenges of our time. We need an equitable global partnership of institutions that are rooted in the diversity of the human community and deployed across all our countries. This is a global agenda that is more equitable, socially just, sustainable and universally relevant for this era.

It is an agenda that is not possible under the business models that underpin higher education in the Anglo-Saxon world, enmeshed with the politics and character of particular nation-states. Some of the strongest higher education systems are premised on a business model in which foreign students, mainly from the developing world, cross-subsidize the costs of training domestic students. This model is not only unsustainable, but further engenders and consolidates the institutional and societal inequalities that erode collective global capacities to address universal challenges.

Higher education and the business models that underpin it must be fundamentally reimagined if they are to rise to our current challenges. This requires a political magnanimity and social solidarity of nation-states, political classes and economic elites that has not always been forthcoming. Yet even in this moment, there are seedlings of hope. Partnerships between the African Research Universities Alliance (ARUA) – a network of research universities on the African continent – the UKRI, and the Guild of European Research-Intensive Universities has been built. In a recent jointly developed position paper, ARUA and the Guild [called](#) on the European Union to commit 10% of the development budget of the AU for university and research partnerships for African and European universities. This could be the beginning of a pioneering attempt to refashion global partnerships in higher education that are more equitable and grounded to training a global intelligentsia.


I am proposing an academy of the commons. For centuries, we have pretended that science has no boundaries. Yet every day we establish institutional and national boundaries that constrain science, knowledge and innovation. We need to break down these boundaries, borrow and learn from each other in a collaborative and equal manner. Lessons learnt and innovations developed in particular contexts could lead to changes in the rest of the world. A global academy of the commons needs to be built so that we collectively understand how innovation can play a part in creating a more inclusive world.

Addressing the transnational challenges of our time – of which COVID-19 is only the most current manifestation – will provide a social and political foundation for us to survive as a global community. It is a bridge of hope between an unequal and fractured past and present and an inclusive, collective future, for which we need enabling deliberative arenas. We need to have the courage to ask the hard questions about our practices and improve them where we can. We have the intellectual resources across disciplines and institutions that can assist us in thinking through innovation more carefully to ensure that it is contextually grounded and inclusive. By doing so, we will genuinely address the inequalities and challenges of our time and through this create a more socially inclusive and humane world.

## References

- Abdoulaye, G. (2019 November 13-14). *From brain drain to brain gain: Countries engaging their diasporas*.
- Andrew, E. (2014). *The philosophy of Habermas*. New York: Routledge.
- Douglas, T. (2018, May 3). *To design better tech, understand context*.
- Ferretter, L. (2006). *Louis Althusser*. London: Routledge.
- Poulantzas, N. (2014). *State, power, socialism*. London: Verso.
- Skocpol, T. (1999). Bringing the State Back In. In P. Evans, D. Rueschemeyer and T. Skocpol (Eds), *Bringing the state back in* (pp. 3-38). Cambridge: Cambridge University Press.
- Weber, M. (1919/2015). Politics as a Vocation. In T. Waters and D. Waters (Translators and Eds), *Webers rationalism and modern society* (pp. 129-198). New York: Palgrave.

# Strengthening Education Systems after COVID-19: How States Can – and Why They Must – Build Back Resilient

 **Christopher Castle**, Chief of Section for Health and Education, Division for Peace and Sustainable Development, UNESCO, France

 c.castle@unesco.org

 **Leonora MacEwen**, Programme Specialist, IIEP-UNESCO, France

 l.macewen@iiep.unesco.org

 **Thalia Séguin**, Associate Programme Specialist, IIEP-UNESCO, France

 t.seguin@iiep.unesco.org

## Summary

Based on UNESCO's experience supporting states to respond to COVID-19, this paper describes how states can, and why they must, endeavour to strengthen their education systems to become more resilient to crises. It includes examples of concrete actions and steps taken by states – both nationally and transnationally – to strengthen resilience through crisis response efforts.

## Keywords

Resilience  
Crisis and Risk Management

Around the world, the COVID-19 pandemic has led to immense learning losses, exacerbating existing disparities and diminishing educational opportunities for the most vulnerable populations. The situation is critical: if inadequately addressed, this learning crisis could become a “generational catastrophe” (United Nations, 2020).

COVID-19 highlights the importance of strengthening the resilience of education systems in developed and developing countries alike. The pandemic has reaffirmed the importance of ensuring that states, and their education systems, are capable of overcoming adversity and are resilient to the risks which confront them. As Habib (this issue) emphasises, there is need for a collective recognition that transnational challenges – climate change, public health, inequality, forced displacement, and social and political polarization – require states to cohere and work together to secure the future. Strengthening education system resilience is crucial for two reasons: i) it enables states to respond to the immediate challenge of safely reopening schools; ii) it allows states to anticipate and mitigate the impact of future global crises, whether related to a health emergency, pandemic, or to other hazards. Based on UNESCO's experience supporting states to respond to the COVID-19 pandemic, this paper describes how states can, and why they must, endeavour to strengthen education systems to become more resilient to crisis. Concrete recommendations are made for states to build resilient education systems, with examples of countries that have taken steps to enhance resilience through crisis response efforts.

## Key considerations for enhancing system resilience

To be resilient to health emergencies, pandemics and other risks, states must ensure that crisis and risk management are institutionalised in education systems. They should strive to understand and address the needs of vulnerable populations in crises and provide opportunities for engaging a broad range of stakeholders in decision-making, including teachers, learners and parents. To enhance education system resilience, Ministries of Education (MoEs) and education stakeholders should focus on interconnected actions (United Nations, 2020):

1. Reinforcing capacities for crisis and risk management at all levels of the education system,
2. Addressing systemic inequities and exclusions, and
3. Ensuring consultation and coordination, both within and outside the education sector.

### Reinforce capacities for crisis and risk management at all levels of the education system

Institutionalising crisis and risk management ensures these concepts are integrated and sustained in all elements of an MoE's work, rather than treated as a one-off activity or as part of a response only to a specific crisis. Reinforcing such capacities involves ensuring data on risks are available to support monitoring and evidence-informed decision-making. Strengthening the education management information system (EMIS) to ensure data are collected and analysed regularly and building good inter-sectoral coordination, for instance with Ministries of Health, can also help facilitate rapid, focused response in the event of an emergency.

Guyana's MoE (forthcoming) has made efforts to strengthen institutional capacities by developing a national risk management strategy for the education sector. The MoE will strive to reinforce organisational capacities for risk management by putting in place a dedicated team of education staff tasked with managing risks and responding when crises occur. Regional capacity is emphasised. Transnational approaches to reinforcing capacities for crisis and risk management have also provided a way for states to address existing risks. In response to risks of natural hazards and vulnerability to the effects of climate change, the Organisation of Eastern Caribbean States (OECS) established a Climate Change and Disaster Resilience Unit to support member states to proactively address the interconnected challenges of climate change and disaster risk management. Interventions include strengthening policy and legislation, capacity development, enhancing awareness and knowledge management (OECS, n.d.).

## Address systemic inequities and exclusions

Habib (this issue) emphasises that inequality poses threats to the collective future of states. Striving to overcome patterns of inequity and exclusion is a moral imperative. Education has an important role to play in sustainably addressing transnational challenges and inequities, enhancing social cohesion and advancing social justice both within and beyond borders. Specific patterns of inequity and exclusion are associated with different crises. Education stakeholders should endeavour to reach all learners, understanding the specific needs of vulnerable groups, and adapting response and recovery measures. The provision of remedial learning, school health and nutrition programmes and targeted support for the most vulnerable students including girls, learners with disabilities, refugees and internally displaced persons are needed. Specific actions include the distribution of feminine hygiene supplies to keep girls in school, provision of learning materials in adapted formats and addressing learning needs for the most hard-to-reach areas. Building back equal is a vital element of building back resilient.

Transnational initiatives can also provide important momentum towards addressing inequities. In the East Africa region, for example, following a global push for the inclusion of refugees in national education systems, through the Comprehensive Refugee Response Framework and the Global Compact on Refugees, the Intergovernmental Authority on Development (IGAD) played a key role in advancing the rights of refugees. The Djibouti Declaration committed seven of the bloc's member states<sup>1</sup> to advance the inclusion of refugees in national education policies, strategies, programmes and plans of action. For many IGAD member states, this process has already led to greater consideration of and reflection on the needs of refugee populations.

### Ensure consultation and coordination, both within and outside the education sector

Ensuring effective consultation and strong coordination among stakeholders, including from other sectors, such as health or environment, creates a foundation that will be sustainable before, during and after a crisis, contributing to overall system resilience. For MoEs, this means engaging stakeholders at all levels of the education system, including efforts to facilitate the participation in decision-making of teachers, learners, parents and school leaders, and enhancing collaboration at the global level, sharing lessons learned within and between states.

At national level, for example, Lao People's Democratic Republic's (PDR) COVID-19 education response plan includes an objective to "ensure a coordinated Government and Development Partners response to COVID-19 prevention and control measures for the education sector, in coordination

with other sectors” (MoES Lao PDR, 2020). It emphasises the importance of integrated interventions and coordinated, collective actions across sectors, particularly in line with health and hygiene protocols. Several strategic principles underpin the plan, one of which is to build back better by striving to enhance the resilience of school communities.

### **Supporting national and transnational approaches to building back resilient**

Throughout the COVID-19 pandemic, UNESCO has been supporting states to enhance their resilience by responding to existing challenges and looking ahead to build stronger education systems. Recognising the transnational implications of the pandemic, UNESCO established the Global Education Coalition, which provides a platform for collaboration and exchange for more than 175 institutional partners, including United Nations organisations, civil society, academia and the private sector. The Coalition aims to protect the right to education and ensure that learning never stops. Since its formation, the Coalition has carried out actions in 100 countries supporting skills, teachers and connectivity (UNESCO, 2021a). It has served as an important mechanism for exchange across countries between decision-makers. A year into the pandemic, in late March 2021, the Coalition held a high-level ministerial meeting to take stock of lessons learnt, the risks facing education and strategies to leave no learner behind.

In addition, UNESCO has maintained real-time monitoring of school closures and openings around the world. Surveys to better understand the impact of school closures have helped guide responses for decision-makers on how to transition to and improve distance learning modalities. UNESCO developed a series of issue notes covering key topics related to COVID-19 education response to share evidence of good practices, practical tips and key references. One such note, “Building back resilient: How can education systems prevent, prepare for, and respond to health emergencies and pandemics?”, features a series of programmatic options for education stakeholders to enhance education system resilience (UNESCO, 2021b).

At country level, UNESCO, and its International Institute for Educational Planning (IIEP), have also provided technical support to education authorities as they respond to and

recover from COVID-19. In Jordan, UNESCO supported the MoE to address evolving strategic planning needs over the course of the pandemic, which involved analysing the impact of the crisis on the education system and the education response of the MoE and its partners. This analysis will guide the MoE during the mid-term review of its 2018-2022 education strategic plan, helping to understand how the pandemic has affected progress towards key performance indicators. The results of this analysis will inform the MoE’s planning for the coming years, including strengthening of capacities for risk management.

### **Looking ahead: Working together to build stronger, more sustainable education systems**

Education is a fundamental human right and a key driver of sustainable development. Globally, moving past the pandemic will be challenging: in addition to addressing economic contractions and learning losses, recovering from COVID-19 will require education systems to meet new and evolving needs of students, parents, teachers and societies. Some can be addressed within countries, as Habib (this issue) notes, but as long as some countries are mired in the pandemic, none in the world are safe.

The link between COVID-19 and the crises that states will face in the future deserves emphasis. Initiatives put in place to respond to and recover from the COVID-19 pandemic should strengthen local strategies to sustain responsiveness and engagement. By making strategic investments now, for example, in school sanitation facilities and ventilation, in school health and nutrition programmes, in strengthening coordination with other sectors such as health or by taking strides to bridge the digital divide to ensure education continuity, states contribute to longer-term improvements. This supports the prevention of, and preparedness for, future crises providing an important opportunity for greater collaboration and exchange between states, vital to respond to the transnational challenges facing the world today.

Enhancing the resilience of an education system is a medium- to long-term endeavour. COVID-19 will not be the last crisis faced by the world, but it does mark an opportunity for states to become better at understanding how to respond, adapt to and recover from crisis, protecting the fundamental rights of all learners, and building education systems that are stronger, more equitable, more sustainable and better prepared.

#### **Endnotes**

1. Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda.



## References

Guyana MoE. (forthcoming). *Guyana national education risk management strategy*.

Ministry of Education and Sports Lao PDR. (2020). *Lao PDR education COVID-19 response plan*. MoES.


OECS. (n.d.). *About us*. CCDRMU.

UNESCO. (2021a). *One year into COVID: Prioritizing education recovery to avoid a generational catastrophe: Report of UNESCO online conference*. UNESCO.

UNESCO. (2021b). *Building back resilient: How can education systems prevent, prepare for and respond to health emergencies and pandemics? Issue note no 1.3 – January 2021*. UNESCO.

United Nations. (2020). *Policy brief: Education during COVID-19 and beyond*. UN.

# Education in the Time of COVID-19 in the Maldives: The Experience of one Small Island Developing State

 **Aminath Muna**, Coordinator and Research Associate, Education in Small States Research Group, University of Bristol, UK

 munasattar@gmail.com

 **Aminath Shiyama**, Assistant Professor, The Maldives National University, Maldives & Coordinator and Research Associate, Education in Small States Research Group University of Bristol, UK

 aminathshimmi@gmail.com

 **Waseema Fikuree**, Assistant Professor, The Maldives National University, Maldives

 waseemafikuree@gmail.com

 **Badhoora Naseer**, PhD candidate, The University of Auckland, New Zealand

 bnas279@aucklanduni.ac.nz

 **Zahra Mohamed**, PhD candidate, The University of Waikato, New Zealand

 zahra.mohamed9907@gmail.com

 **Fathimath Shafeeqa**, PhD candidate, The University of Peradeniya, Sri Lanka

 fathimathshafeeqa@yahoo.com

## Summary

The COVID-19 pandemic has significant implications for small island developing states (SIDS) such as the Maldives. We discuss how the Maldives is being impacted and how the education system is responding. Particular attention is given to online schooling as we highlight the importance of context in determining educational priorities.

## Keywords

COVID-19 Pandemic  
The Maldives  
SIDS  
Equitable Education  
Online Learning

Countries worldwide are grappling with the challenges posed by the COVID-19 pandemic. The extraordinary scale of the crisis has caused governments to lock down almost all economic activity, impose contact restrictions and close many vital services, including face-to-face education. The devastating socio-economic consequences of these responses are felt more intensely in countries with limited resources, including small island developing states (SIDS).

Small states have attracted research on their strengths and challenges (Crossley & Sprague, 2012). Much work has been spearheaded and supported by the Commonwealth, which includes 32 small states out of 54 members. The Commonwealth defines small states as those with 1.5 million people or less, but larger states, such as Papua New Guinea in the Pacific and Jamaica in the Caribbean share some similar characteristics. The UN identifies 58 SIDS recognising them as a distinct group since the 1992 Rio Conference on Environment and Development.

International agendas and priorities have often dominated SIDS' own educational and development priorities (Crossley, 2010). Pearlette Louisy, former Governor-General of the island of Saint Lucia, has questioned the international transfer of educational policies from Northern systems harming the diverse cultures and systems of the Caribbean region (Louisy, 2001; Crossley & Louisy, 2019). Baldacchino (2012, p. 16), writing from Malta in the Mediterranean, argues that more needs to be done to recognise the “idiosyncrasies associated with smallness” if the real needs of small states are to be addressed.

While the COVID-19 pandemic brought about unprecedented disruption to the global economy, real GDP in many small states contracted by 17% compared to an overall 5.2% worldwide (World Bank, 2021). Some small states could draw on each other. The small states of the Caribbean, for example, pooled their resources as a collaborative regional response and implemented a series of measures to mitigate the impact of the pandemic (Morgan, 2020). But this did not always happen. The Maldives provides one example of SIDS experience during COVID.

### **Impact of COVID-19 on education in the Maldives**

The outbreak of COVID-19 in the Maldives in March 2020 forced all 310 schools to shut down for three months with the first lockdown, interrupting the learning of over 91,000 students (Ministry of Education, 2020). Teachers in the Maldives were compelled to adopt online teaching to ensure the continuation of learning. Subsequent lockdowns with further waves of the pandemic necessitated online teaching as the “modus operandi” for schooling. This sudden shift caused additional challenges as online teaching was a relatively new practice in Maldivian schools.

There was a lack of institutional infrastructure, resources, and teacher competence (such as technological pedagogical knowledge and teacher education training opportunities related to digital teaching and learning) which was challenging. Initial teacher training programmes in the country were not designed to integrate education technology, and this hindered the deployment of online learning.

The rural, outlying islands have historically suffered from disparities in resources and services compared to the capital Malé. Students from remote communities have lower educational attainment and earning potential. There were many challenges in using digital technologies and online teaching on these islands (Fikuree, 2020). The expense and organisational difficulty were considerable in establishing the necessary human resource capabilities for these far-flung islands with small school populations. (The Maldives has 187 inhabited islands across a geographically dispersed archipelago, with approximately one-third of this population residing in Malé [National Bureau of Statistics, 2018].) Eleven

percent of Maldivian lower and higher secondary students were not able to participate in any online classes and relied on televised lessons only (Fikuree et al., 2020). Muna and Shiyama (2020) found that 6.1% of primary students did not have any internet access for online learning. Thus, disparity in the provision of quality and equitable education widened, weakening the nation's efforts to reach the UN's Sustainable Development Goal for education in the future.

### **The responses of the Maldivian education system to the pandemic**

The Ministry of Education (MoE) formulated an Education Response Plan (ERP) to ascertain the learning loss (the estimated adverse impacts of COVID-19 on education) students were facing. It aimed to mitigate the reduction and unequal levels of learning and identify ways to support the most vulnerable and least accessible populations. The plan was used to apply for donor aid in overcoming short-term and long-term learning loss.

Dual mode teaching and learning was introduced through television, locally known as “Telikilaas”, and online classes. Telikilaas was collaboratively developed and recorded to be telecasted nationally, taking marginalised students into consideration. Televised lessons initially targeted secondary school students (Grades 8 and above), but later catered for all grades. The Telikilaas program has been given a UNESCO Wenhui Award for educational innovation in the Asia Pacific region. For online classes, online platforms were introduced, including a portal called ‘Filaa’, the MoE digital repository. The MoE decided to use G-Suite by Google for general online schooling because of its low cost and flexibility. G-Suite was introduced to Maldivian schools in 2017, and Android Tablets for all students and teachers were provided in 2018. Thus, the education system was well set up for the adoption of online learning at the start of the pandemic. However, although public schools in the Maldives, especially in Malé, enjoy the use of technologically advanced teaching and learning resources, there was no nationwide online teaching for public schools prior to COVID-19. Teachers' readiness for the shift to online teaching was limited. To partially address the shortcoming in access to digital services, the government offered five gigabytes of mobile data to all students, ten gigabytes of data for teachers and wifi dongles to those who requested them.

To strengthen online teaching and learning, MoE, with financial assistance from UNICEF, trained two thousand Google certified teachers. Teachers with online teaching competence supported other teachers within and beyond their schools. Teachers' online and digital teaching and learning was enabled partly because of the small, tight-knit communities (Shiyama, 2020) which are characteristic of SIDS, and provided a safety net for teachers as they explored

new pedagogies. Some schools took the initiative to develop and share teaching resources. These actions together enabled Maldivian schools to provide technical and pedagogical support for online teaching during the pandemic. Efforts were made to share teachers' innovative online teaching and learning practices via an e-conference organised by MoE entitled "Innovation and Best Practices in Education during COVID-19". At the same time local researchers investigated the use and nature of online learning as it was being widely adopted in the country. This instance of the collaborative initiatives on developing technical competencies of students and teachers demonstrate that even SIDS have their own range of intellectual resources across disciplines and institutions that can be utilised to inform evidence-based interventions at the local level. The use of such approaches in addressing the challenges of the pandemic help to bridge the inequalities between urban and rural schools.

### Conclusion

Several lessons can be learned from the Maldivian experience. Firstly, an early response to assess the situation and secure financial and other forms of assistance are vital for SIDS. These states have weak health care systems and highly congested living conditions and are particularly vulnerable in a pandemic. Secondly, the response to address a crisis was built on existing resources and teachers' collaborative capacity to address the situation. Thirdly, the use of social media platforms to share knowledge and resources combined with the proactive role played by the supportive local communities were crucial in reducing the learning loss. These contextually relevant practices can create opportunities and give a voice to the marginalised, promoting a socially just community.

Context-sensitive responses require: (1) appropriate ICT policy which aim to minimise the digital divide between schools, (2) adequate technological infrastructure, (3) sufficient digital resources and (4) continuous professional learning and development for teachers through existing social and professional networks. The Maldives experience demonstrates the importance of local agency in developing and implementing educational and health interventions especially during a pandemic.



### Acknowledgements



We would like to acknowledge the support of colleagues in the [Education in Small States Research Group \(ESSRG\)](#) at the University of Bristol, UK

### References

- Baldacchino, G. (2012). Meeting the tests of time: Small states in the 21st Century. *Current Issues in Comparative Education*, 15(1), 14-25.
- Crossley, M. (2010). Context matters in educational research and international development: Learning from the small states experience. *Prospects* 40(4), 421-429.
- Crossley, M., & Louisy, P. (2019). Commonwealth small states, education and environmental uncertainty: Learning from the sharp end. *The Round Table*, 108(4), 459-471.
- Crossley, M., & Sprague, T. (2012). Learning from small states for post-2015 educational and international development. *Current Issues in Comparative Education*, 15(1), 26-40.
- Fikuree, W. (2020). *Does context make a difference? Perceptions of school leaders towards school closure across the country in the Maldives during COVID-19 pandemic* [Paper presented]. Oceania Comparative International Education Society (OCIES), Australia.
- Fikuree, W., Naseer, B., & Mohamed, Z. (2020). *Online learning experiences of students in the Maldives* [Paper presented]. Oceania Comparative International Education Society (OCIES), Australia.
- Louisy, P. (2001). Globalisation and comparative education: A Caribbean perspective. *Comparative Education* 37(4), 425-438.
- Ministry of Education. (2020). *Maldives education response plan for COVID-19*.
- Morgan, K. (2020). *Call to action for CARICOM education ministers: COVID-19 and education*.
- Muna, A. & Shiyama, A. (2020). *Parents' perspectives on the challenges to schooling due to the COVID-19 pandemic: Insights from the Maldives* [Paper presented]. Oceania Comparative International Education Society (OCIES), Australia.
- National Bureau of Statistics. (2018). *Statistical pocketbook of Maldives 2018*.
- Shiyama, A. (2020). *Primary teacher professional learning in the Maldives: An explorative study of science process skills pedagogies*. Unpublished PhD thesis, The University of Bristol, UK.
- World Bank. (2021 April 2). *The World Bank steps up support to small states in response to COVID-19 pandemic*.

# Education under Surveillance in Kashmir in the Era of COVID-19

 **Ruhail Andrabi**, Junior Research Fellow, Department of Educational Studies, Jamia Millia Islamia, India  
 ruhailandrabi@gmail.com

 **Laila Kadiwal**, Lecturer, UCL Institute of Education, UK  
 l.kadiwal@ucl.ac.uk

## Summary

This article focuses on how the COVID-19 lockdown intersects with academic freedom in the disputed Himalayan territory of Jammu and Kashmir. The Bhartiya Janata Party, the ruling right-wing party of India, has used COVID-19 to actively isolate Kashmir curtailing educational rights and opportunities. Punitive internet blockades and the state's surveillance technologies associated with prolonged military occupation affect educational access.

## Keywords

Kashmir  
Academic Freedom  
Education in India  
COVID-19  
Kashmiri Muslims.

*Tormented by tyranny I chant, my beloved land!  
I shed tears consumed, I chant, my beloved land!*  
- Madhosh Balhami

The COVID-19 pandemic has paved the way for a global rise in state surveillance, which curbs domestic political challenges, blocks reports of abuse and restricts collective action (Eck & Hatz, 2020). In what follows, we explore how India has used the pandemic to broaden powers of surveillance in Kashmir and how this affects educational access and academic freedom. Although India's battle with academic freedom is longstanding, there has been an alarming change in the educational landscape since 2014, when the Bharatiya Janata Party (BJP) came to power. Since that date, according to the "Academic Freedom in India: A Status Report, 2020" (Sunder & Fazili, 2020), the freedom to pursue research, teach, speak and publish without interference or reprisal by the state and non-state actors have [increasingly come under pressure](#). Instances have multiplied of subjugation of students and academics for voicing dissent at state policies or societal norms. This repression affects their right to education, freedom of opinion and expression, freedom of association, and freedom of movement. There has been a sharp rise in the incarceration of students and young researchers, and heavy-handed suppression of academic activities critical of the ruling party (Amnesty International, 2020).

The issue of academic freedom is more pronounced in the state of Jammu and Kashmir than in the rest of India. Here COVID-19 has intersected with prolonged military occupation, punitive internet blockades and the lockdown, affecting the lives of thousands of Kashmiri students.

## Militarisation, education and surveillance

The pandemic in Kashmir is being treated as [a law and order problem, rather than a public health concern](#) (Saraf & Sharma, 2020; Sharma, 2020). Tariq Mir (2020), a freelance journalist based in Kashmir, notes that in the pandemic lockdown "India

has spotted an opportunity for another round of repression against the population of Kashmir, which had already been reeling from the harsh aftereffects of last year's six-month long military lockdown." The government has dug arterial roads, raised barricades, sealed shops, increased troops, and has violated civilians and essential service providers, which has amplified a feeling of confinement. In this sense, the heavy military presence in Kashmir serves as an "all-seeing" panopticon (Foucault, 1995).

Following the abrogation of the constitutional provision for Kashmir in [August 2019](#), the Indian state deployed a large contingent of troops to suppress dissent and political representations from the people. The government has incarcerated many students and academics under anti-terror legislation for protesting draconian citizenship laws and extractive land acquisition statutes. The state had ordered a prolonged closure of schools and colleges and an internet blockade weeks before the COVID-19 lockdown in March 2020.

Education in Kashmir has long been a site of state-led violence as military and paramilitary troops frequently occupy campuses to curb demands for autonomy (Nooranani, 2007). Young people in Kashmir have found themselves the prime suspects and targets of the Indian state's policy of "[catch and kill](#)" for decades, leading to arbitrary detentions, torture and life-threatening injuries (Sunder & Fazili, 2020). Students and staff regularly face physical intimidation and violence from the military. Students are frisked, harassed and questioned at military checkpoints daily. Sometimes it takes hours for students and staff to pass through these checkpoints.

The military interferes in the academic and intellectual processes of the university. Since 1990, army and police personnel have served as governors of the universities in Kashmir. Those in power have shown more interest in imposing an "intelligence wing" on the campus "[to spy on 'erring' teachers, scholars and students](#)" rather than ensuring academic freedom (Nooranani, 2007). University teachers and students have been warned against speaking to the press. Students and staff have been subject to harsh discipline for organising film screenings, debates and public lectures on Kashmir as these are decried as "anti-national" activities by the state. In Hannah Arendt's (1968, p. 239) words, the government is "at war with truth in all its forms", wherein a commitment even to telling the truth is considered an anti-national attitude. Students are forced [to celebrate Indian Republic Day and perform gestures of loyalty to the nation](#) (Junaid, 2021). Dhillion (2017) argues education is posited by settler-colonial states as the key to social mobility for Indigenous peoples. In the case of Kashmir, participation in education renders them as colonial subjects.

Under the rhetoric of the "special circumstances" of Kashmir, many rights to academic freedom have been denied: the rights of students and teachers to freedom of speech; freedom of association; the right to have a campus newspaper or journal; the right to invite speakers from outside; the right to speak to the media; the right of access to university authorities and the right of protest; the right to hold meetings on campus; and the right to hold elections for student bodies or union of teachers (Anonymous, 2021a). All these rights are denied citing concerns associated with national security.

The consequences of surveillance are multi-layered, which turns education into an [occupied space](#) controlled by state apparatuses. It results in epistemic violence as students and staff self-censor. This depoliticises their teaching and learning. The curriculum, thus, may not have relevance to issues that student experience in their everyday lives regarding, law, politics, media, social science, geography and history. Thus, what is taught may not speak to their perspectives and needs. The curriculum may also not provide resources that enable students to develop capacity and skills to make policies that address their economic, political, environmental and social predicament in Kashmir.

The military control of educational spaces goes together with a broader expansionist grabbing of the land (Anonymous, 2021b). For instance, the expansion of *Sainik* colonies (soldiers' residential estate) has taken place at the expense of Indigenous peoples who have found themselves displaced from their lands. People are forced to stay inside their homes, often with reasons of the pandemic cited, while hundreds of houses have been demolished under the pretext of counter-insurgency operations. Activists have raised the fears of ethnic cleansing in the region. A project of a colonial-settler state has continued unabashedly under the conditions of the pandemic.

### **The internet shutdown and education**

While more privileged parts of the world continued to ensure educational delivery via online technologies under the COVID-19 lockdown, Kashmir experienced punitive internet blockades. The internet was the only viable avenue for thousands of Kashmir students and academics to ensure academic exchange during the COVID-19 lockdown. However, since August 2019, communication has been disrupted to prevent Kashmir students and staff from expressing dissent on social media. Under the pretext of [combating "terror" and "external threats,"](#) the state has frequently blocked access to TV, radio, postal services, press, telephone and mobile and internet services.

The pandemic allowed the Indian state to cloak the abuses of power associated with internet censorship (Mir, 2020). This

was an exercise ensuring that Kashmiris cannot communicate the struggle for autonomy and democracy to a larger global audience. Social media platforms have been **complicit** in censoring the voices of Kashmiris (Zia, 2019). Eventually, a court recognised in a judgement delivered on 1 October 2020 that this was a violation of rights. But implementation of actions to restore internet access was given to the very actors responsible for closing it down in Kashmir. When the internet was restored after months of protests and petitions, Kashmir received only 2G internet speeds and people were only permitted to view a limited number of state-approved websites.

During the pandemic, the Ministry of Higher Education in India issued a **circular** (now withdrawn) directing that all online/virtual international events organised by Indian public universities which relate to India's "national security" must acquire prior approval from the Ministry of External Affairs. This circular explicitly prohibited an international discussion of Jammu and Kashmir as an "internal matter" to further stifle international attention on the issue of Kashmir.

In Kashmir the internet remains heavily disrupted, with severe economic, emotional and academic consequences for Kashmiri scholars and students (Yousouf et al., 2020). This situation has hurt researchers, PhD students and academics who cannot access research publications, submit admission applications, meet publication deadlines or participate in intellectual exchanges. It makes it difficult for students registered in various universities across India, who have returned to Kashmir during the pandemic, to continue their education online, maintain contact with faculty and access online resources.

## Conclusion

The example of Kashmir raises the issue of academic freedom during the pandemic. The Indian state has used the pandemic lockdown to incarcerate students and academics critical of the ruling regime, displace people with counter-insurgency operations and shut down access to the internet. Schools, university spaces and colleges remain suspended. Those who resist the army forces are booked under the Public Safety Act.

Habib (this issue) notes the need to rethink global higher education partnerships. Universities based in relatively safer and colonially enriched contexts of the West have privileges that can be used to work with students and academics facing persecution. Kashmiri students and staff do not need international actors to "save" them but to join them in their struggle to live with dignity. Western elite higher educational institutions can assist in many ways: they may amplify voices from Kashmir, galvanise international pressure and educate people in histories of injustices and colonisation, building understanding how these processes continue and are sustained. Global higher education can be innovative in creating new ways to uphold academic life and knowledge threatened by anti-life, anti-democratic and authoritarian regimes.

## References

- Amnesty International. (2020). *Human rights defenders languish in COVID-19-hit prisons as state crackdowns continue.*
- Anonymous. (2021a). *Universities now need Govt approval for online international events on India's 'Internal Matters'.* The Wire.
- Anonymous. (2021b). *From domicile to dominion: India's settler colonial agenda in Kashmir.* Harvard Law Review.
- Arendt, H. (1968). Truth and Politics. In *Between Past and Future*.
- Eck, K., & Hatz, S. (2020). State surveillance and the COVID-19 crisis. *Journal of Human Rights*, 19(5), 603–612.
- Junaid, M. (2021). *'We were forced to celebrate the Republic Day event by forces'*- Says Siraj Ul Uloom Shopian. *The Kashmiriyat*.
- Mir, T. (2020). *Opinion | India is using the pandemic to intensify its crackdown in Kashmir.* *Washington Post*.
- Nooranani, A. G. (2007). *Academic freedom in Kashmir and elsewhere.* *Economic and Political Weekly*, 42(36).
- Saraf, A., & Sharma, M. (2020). *Insurgent frontiers and the viral condition.* Identities Journal Blog.
- Sharma, A. (2020). *Jammu and Kashmir police use batons and FIRs to enforce COVID-19 lockdown, hospitals struggle.* The Caravan.
- Sunder, N., & Fazili, G. (2020). *Growing Restrictions on Academic Freedom.*
- Yousouf, M., Bhat, R., & Andrabi, R. (2020). *I see my dreams vanishing: Kashmiri researchers during the internet blockade.* The Caravan.
- Zia, A. (2019). *How Facebook helps silence Kashmiri voices.* The Caravan.



# Part 4

## Progress

# Rethinking progress and time: Japanese Nightingales (Uguisu) and COVID-19 in Kyoto

 Keita Takayama, Professor, Graduate School of Education, Kyoto University, Japan

 takayama.keita.7w@kyoto-u.ac.jp

## Summary

This personal narrative discusses how the disruptions caused by COVID-19, along with Japanese nightingales' singing, have created a reflective moment on the temporal logic of modernity. It introduces the notion of “margins of lectures” as a reminder that a linear, progressive logic of time must be disrupted for meaningful education.

## Keywords

COVID-19  
Modernity  
Futurity  
Progress  
Japanese Nightingales

“Do you have any advice about how we can stay productive during the COVID-19 pandemic?” Someone who seems like an early career researcher asked this question to a panel of presenters, including myself, in a virtual conference held in April 2020. Prior to this event, I had been unwell for a little over three weeks. It was a deeply unnerving experience, as I had some of the typical COVID symptoms, yet they were not serious enough for diagnostic testing. This meant that there was no way of knowing whether my sickness was due to COVID-19 (and I still don't know what it was, even today). After a prolonged period of self-isolation at home, I only got well enough to participate in the panel. “I don't think we can. And perhaps, we should not even be trying, either”, I said something to that effect in response to the question. “Research productivity” was the last thing to worry about, when not only my own, but my whole family's health, was at possible risk.

As soon as I started self-isolating at home, I noticed one morning the beautiful singing of a Japanese nightingale ([Uguisu](#)). I don't know how many of them were actually around. Perhaps it was only one bird enchanting us with its mesmerizing chirping every 10 seconds or so. I was pleasantly surprised as I did not think they live in our neighbourhood in the northern part of Kyoto. How come I did not notice it before? Have they been singing every morning since we moved to Kyoto six months ago? Or would it be the case that now that my life has sufficiently slowed down, I am attentive enough to the surroundings to hear the singing? Or would it be the case that the reduced human activities have brought nature back to the city, so more birds and animals feel safe enough to be in the urban space? Indeed, COVID-19 completely changed the outlook of this ancient capital of Japan, the world-famous international tourist destination. Locals say that we are back to Kyoto some 30 years ago, when it was still nice and quiet.

It was not just the singing of nightingales and slowing down in life that I noticed because of the pandemic. It also did something to the very experience of time. As American sociologist Peter Berger (1977, p. 104) once explained, one

of the five dilemmas imposed by modernity on human life is futurity, “a profound change in the temporal structure of human experience, in which the future becomes a primary orientation for both imagination and activity”. The modern notion of time, or the “clock-time,” is premised upon progressive linearity; time is conceived as “precise, measurable and, at least in principle, subject to human control” (Berger, 1977, p. 104). Everyday technological devices, with all sorts of scheduling and time management apps, further promote this trend, imposing “a functional understanding of time as chunkable, single purpose, linear, and ownable” (Mazmanian et al., 2015). They help us calculate and coordinate every second of our private and professional lives towards future certainties.

This logic of futurity was completely shattered by COVID-19, albeit momentarily. Not knowing how soon the pandemic could be brought under control and how widespread the viral infection was, we were forced to spend day after day at home with the deepest sense of uncertainty about the future, simply hoping for better the next day. We quickly lost our sense of time, as our weekly routines were completely disrupted. Futurity was gone, as the future was no longer secured and foreseen. All the meetings, conferences and trips scheduled for the next few months were wiped off my calendar, with all the deadlines suddenly turning inconsequential.

In response to the pandemic, universities around the world jumped to the online mode of teaching. It was the university’s desperate attempt to bring back into its operation a secured sense of futurity. Indeed, university is a thoroughly modern institution, in terms of how futurity is built into its operation. The temporal “bread and butter” of university is the compartmentalization of teaching and learning into terms within which students are implicitly taught to develop time managing skills and dispositions. Course plans are laid out with all the projected learning outcomes clearly spelled out before the term begins. Intellectual activities are punctuated with weekly progressive coverage of different topics, culminating in a set of tasks and activities that are to be completed by the students in a time sensitive manner.

All these temporal regulatory measures are in place to render the process of learning linear and predictable. These measures can remove the essential “weakness” of education, which is precisely what makes education worthy of its name, that is, the notion of education as subjectivation, according to educational philosopher Gert Biesta (2013). In the face of a “learning crisis” brought by the pandemic, many of us ended up teaching online in a business-as-usual way, without disrupting the temporal normativity of university education.

Berger (1977) reminds us that a romantic rejection of futurity is not practical in our thoroughly modernized life. Indeed,

many modern institutions, ranging from macro-economic policies to public transport, must operate on the basis of futurity so that modern convenience and security will be ensured. But what about universities? Historically, universities played a critical role in the early introduction of clock-time in many parts of the world (Rappleye & Komatsu, 2015). Today, the hyper-intensified form of modern temporal logic has dominated everyday life at university, when world university rankings powerfully condition our places of intellectual work (Shahjahan et al., 2017). Some of us are deeply concerned about the dire implications of this for the nature of knowledge we produce, how we go about it (Shahjahan, 2015), and the implications for the potential of education for democratic polity (Biesta, 2013). Going back to the initial question, how in the world has it become sensible for an early career researcher to talk about research in terms of “productivity,” that is, in terms of the quantifiable outputs measured within a set time frame? And most disturbingly, this happened when the whole of humanity was living in fear of the global pandemic. Hence, we might want to ask, borrowing Berger’s (1977, p. 106) words, “how and in what areas of” the university “may it be possible to do without clocks and calendars”?

If COVID-19 has taught me any lesson, then it would be about the pervasiveness of the modern temporal logic as well as its limits and fragilities. The global pandemic momentarily forced us to break away from the modern, progressive notion of time and to experience what it would be like to live “without clocks and calendars” (Berger, 1977, p. 106). The lack of future certainty has generated considerable anxiety among us, but often forgotten is the opportunity that it has created for us to imagine differently. What if we had capitalized upon the higher education “learning crisis” caused by the pandemic to explore alternatives to the futurity of university education, where “wayfaring” and “disruption” are recognized as central to good education (Takayama, 2020)? What would that look like? How can we teach within the institutionally sanctioned structure of time, while at the same time rejecting the logic of futurity and linearity that renders education something else? Would the online mode of teaching enable us to pursue this, or would it further reinforce the modern temporal logic?

Just when I was thinking about all this, I came across a small column in a local newspaper. Titled “margins of lectures” (*Jugyō no yohaku*) (Yamada, 2020), the column raised concerns about the unintended consequences of video conferencing for university lectures. The “margins of lectures” refers to those “accidental” moments of learning, including when lecturers go off topic and yet end up talking about something more meaningful to the students than the carefully sequenced lecture. It could include when students engage in spontaneous discussion off campus, perhaps in cafes and bars, about books and arguments introduced

during the formal lectures, when they share with each other cognate books and articles for further independent studies. The column introduced voices of university students today, attesting to the disappearance of serendipitous moments of learning, when online learning completely replaced face-to-face on campus learning in Japanese universities. How do we ensure that online mode of learning is structured in a way to allow for ample “margins” – or “weakness” in Biesta’s words – so that accidental, and yet more profoundly meaningful forms of learning, continue to take place?

Moving the clock forward, it is the second week of January 2021 right now. COVID-19 is still with us in Kyoto. Just last week, a state of emergency was declared in response to the recent spike in cases. By now, however, it seems that people around here have gotten so used to living with the pandemic that the occasional reporting of small clusters in and around Kyoto no longer surprises us too much. COVID-19 has been fully accepted as part of normality, and a facemask has virtually become an extension of our body. Unfortunately, normalization of COVID-19 has come with that of futurity in my day-to-day life; my hours are filled with online meetings back-to-back, with some international meetings scheduled way beyond my work hours; my newly purchased 2021 calendar has been quickly filled with numerous appointments and deadlines, including, I must add, the deadline for this contribution. And I am very sad to report that I no longer hear the Japanese nightingale(s) singing beautifully in the morning. Do they only appear in our neighborhood in springtime? Or is their disappearance due to the fact that my daily life has regained its temporal normality and lost “margins”?

Though nightingales are no longer with me, the reflection they triggered has had a lasting impact on me, and this is already visible in my current online teaching. To create margins in my course, I always begin and finish the weekly classes with informal conversation about anything that comes to my mind and invite students to engage with my thoughts and feelings. I constantly drift off from the course plan and let my students do the same. This means that I have to constantly alter the course plan, bringing in a different set of readings depending on where our discussion might take us each week. Whatever little sense of temporal progression and linearity underpinned my original course plan has been thrown away. And most exciting (and embarrassing) of all is the fact that I did not even know, till the last few weeks of the term, how many hours my weekly class was supposed to be and how many seminars I was supposed to hold. I learned for the first time, after being at the Kyoto University for two years, about these “clocks and calendars” matters, when a somehow perplexed administrative staff member corrected my timetable request for the next academic year; explaining that my graduate seminar is supposed to be for 1.5 hours (as opposed to 2 hours as I requested) per class and for the duration of 15 weeks. As you can tell, I do not pride myself on organizational and administrative skills. Probably, the students did not want to embarrass me by pointing out my glaring errors. But when asked in the class why they did not correct me, they all laughed at the fact that it had taken this long for me to realize the mistakes, and then simply said that it did not matter to them. Reflecting upon the moment, I now realize that perhaps it was a good thing, as it might have suggested that my students and I managed to create a learning experience, where clocks and calendars were not that important.

## References

Berger, P. (1977). *Facing up modernity: Excursions in society, politics, and religion*. New York: Penguin Books.

Biesta, G. (2013). *Beautiful risk of education*. New York: Paradigm Publishers.

Mazmanian, M., Erickson, I., & Harmon, E. (2015). Circumscribed time and porous time: Logics as a way of studying temporality. Proceedings of the 18<sup>th</sup> ACM Conference on Computer Supported Cooperative Work & Social Computing, 1453-1464.

Rapplee, J., & Komatsu, H. (2015). Living on borrowed time: Rethinking temporality, self, nihilism, and schooling. *Comparative Education*, 52(2), 177–201.

Shahjahan, R. (2015). Being 'lazy' and slowing down: Toward decolonizing time, our body, and pedagogy. *Educational Philosophy and Theory*, 47(5), 488–501.

Shahjahan, R., Ramirez, B., & Andreotti, V. (2017). Attempting to imagine the unimaginable: A decolonial reading of global university rankings. *Comparative Education Review*, 61(S1), 51–73.

Takayama, K. (2020). An invitation to negative comparative education. *Comparative Education*, 56(1), 79-95.

Yamada, N. (2020, August 8). Jūgyō no yohaku [Margin of lectures]. *Kyoto Shinbun* (The Kyoto Times), 7.

# The Pandemic Shock on an Education System: An Actor-Network Theory Perspective

 **Pravindharan Balakrishnan**, Public school teacher, SMK Padang Midin, Malaysia

 pravindharan.balakrishnan@gmail.com

 **Nurul Ain Johar**, Public school teacher, SMK Seberang Marang, Malaysia

 joharanurul@gmail.com

## Summary

Utilizing Actor-Network Theory (ANT) to explore how the Malaysian education system has progressed through the ongoing pandemic, this article first describes the persistence of existing entanglements with technologies of assessment before discussing three new entanglements resulting from increased public-private interactions, which hold consequences for student data, and how learning and teaching are organized.

## Keywords

Actor-Network Theory  
Public-Private Partnerships in Education  
Standardized Assessments  
Role of Teachers  
Education in Malaysia

When the pandemic first caused school closures in Malaysia in March 2020, two things that sprang to our minds as educators were: when would we be able to go back to teach at school and how would this impact our final-year students who were due to sit for the most important examination in their lives, the Malaysia Certificate of Education (SPM). For Malaysian society, education is generally seen as an essential aspect of life. A passing grade in SPM is needed in order to secure work or pursue higher education. The overbearing importance of exams links with a modern temporal logic. Students are expected to sit final exams in November and proceed to enter higher education in August the following year. In the pandemic, this natural progressive linearity was disrupted as Takayama (this issue) shows the pandemic forced us to “break away from modern, progression of time”.

But time still exerts influence. The job market nowadays is different to what it was years ago. With technology powering social media and the gig economy, many school leavers or even drop-outs earn a living by ignoring the time demands of education.

Takayama (this issue) makes the case that the higher education institutions are oriented towards a future, but the same logic applies in schools. UNESCO reported 192 countries closed educational institutions, the highest number since World War II (d’Orville, 2020), affecting approximately 90% of world learners (Psacharopoulos et al., 2020). Williamson and Hogan (2020) underline how the private sector and commercial businesses aimed to transform the organization of public education for the future by capitalizing on this massive crisis. Ministries of Education around the world quickly brokered deals with global EdTech networks and international organizations in order to arrest learning loss. This discourse gained prominence among those who view education through an economic lens (Hanushek & Woessmann, 2020). The different actors that interact in the education ecosystem see the future differently.

Actor-network theory (ANT) allows us to look at different ways of characterizing education for the future. We can thus attempt to trace “the ways in which humans and non-human elements are enacted as they become assembled into collectives of activity” (Fenwick, 2010, p. 120) through the pandemic. ANT enables us to analyse the interplay between humans and nonhumans with regard to a certain societal order. Education is a messy and complex social institution, and it entails interactions within many actors, institutions and technologies evolving at a rapid pace; thus, ANT is useful to study evolving practices and situations of change. Also, ANT enables us to understand the entangled nature of everyday material and allows us to notice and police dangerous entanglements (Fenwick, 2010). Actors (students, teachers, parents) interact with nonhuman materials (standardized assessments, technology) through the pandemic, continuing to reimagine education.

Like many countries, Malaysia relies on a single national assessment, SPM that every Malaysian citizen who goes through the formal public education system must take at the end of a period of schooling, at the age of 17. SPM is a high stakes examination that has important consequences. It is required for accessing scholarships, determining an academic pathway and career trajectory, SPM decides one’s destiny after school. The constant postponement of the examination due to the COVID-19 outbreak caused huge anxiety for students, teachers and parents. The controversial use of algorithms instead of examinations in the UK (Richardson, 2021) led the Ministry of Education in Malaysia to decide to go ahead with the SPM, finally scheduling this on 22 February 2021. Takayama (this issue) reflects on how the cancellation or postponement of exams disrupted the predictability of the education system. In Malaysia this caused anxiety, but also forced us to have tough conversations on the utility of assessments. Standardized assessments were discussed as outdated and unjust modes of assessment with implications for cultures in schools.

The pandemic had disrupted the predictable linearity of education that schools provided for students. Global EdTech companies attempted to capitalize on this, Google For Education partnered with the Malaysian Ministry of Education, and other educational organizations, to conduct online webinars to upskill teachers for online learning (Balakrishnan, 2020, p. 103). In mid 2020, the Ministry of Education rebranded its Google Classroom online learning platform as DELIMa (Digital Educational Learning Initiative Malaysia) partnering with Microsoft, Google and Apple (Sharon, 2020). This raises questions regarding who owns and keeps the data associated with these activities. Is it the state or these commercial entities? From an ANT perspective, as governments are brokering large-scale commercial partnerships at a rapid pace with global tech corporations,

this means new networks are being established, raising questions about privacy legislation and security measures.

Global EdTech companies have the potential to intervene at both policy and pedagogic levels, prompting the emergence of new public-private partnerships (PPPs) in education. In Malaysia, several partnerships with organizations helped to ensure learning continuity during the pandemic. The YTL Foundation provided free mobile phones to schools (Balakrishnan, 2020). The Ministry of Education partnered with Media Prima, a local media and entertainment group, to create DidikTV, a Malaysian educational television network which aired educational content for all Malaysian students (Geraldine, 2021). The potential of Artificial Intelligence (AI) has also been suggested. Former Malaysian education minister, Maszlee Malik, noted that AI tools are likely to be used to stream students in upper secondary schooling (Yap, 2019) and to boost mobility and employability in higher education through predictive data analytics (Malik, 2019). Although nothing materialized as Malik left office in January 2020, the pandemic opens possibilities to accelerate the use of AI in education.

New technologies transform the role of the teacher who moves away from the physical classroom to an online space, associated with an array of web-based platforms (Kahoot, Quizziz, Padlet) and social media applications; the human teacher establishes a network in order to reach students. Thus, in order for the network (teacher-online platforms-students) to generate meaningful outcome (i.e., learning); the human actors require prior knowledge and the right infrastructure to achieve this. A Malaysian teacher was heavily criticized after her lesson was aired on DidikTV. The teacher, who was teaching Science, was ridiculed for heavily accented English and her presentation skills (Menon, 2021). Thus, the social relation between the teacher, the students and the public shifts as the role of the teacher is reconfigured.

The examples from Malaysia indicate the global education ecosystem is going through a seismic shift involving entanglements that blur the boundaries between public education systems and private entities. Public education risks being highly commercialised and exploited under the pretence of securing a sense of futurity and linearity.

## References

- Balakrishnan, P. (2020). Education in the age of COVID-19: Educational responses from four Southeast Asian countries. *CCEAM*, 48(3), 7.
- d'Orville, H. (2020). COVID-19 causes unprecedented educational disruption: Is there a road towards a new normal? *Prospects*, 49, 11-15.
- Fenwick, T. J. (2010). (un) Doing standards in education with actor-network theory. *Journal of Education Policy*, 25(2), 117-133.
- Geraldine, A. (2021, February 19). Kids: Learning via DidikTV KPM is fun. *News Straits Times*.
- Hanushek, E., & Woessmann, L. (2020). *The economic impacts of learning losses*. OECD Education Working Papers No. 225. OECD Publishing: Paris.
- Malik, M. (2019, September 22). Dr Maszlee Malik talks about reforms in the higher education sector. *The Star*.
- Menon, S. (2021, February 21). Teacher admits weakness over English pronunciation. *The Star*.
- Psacharopoulos, G., Patrinos, H., Collis, V., & Vegas, E. (2020, April 29). The COVID-19 cost of school closures. *Brookings*.
- Richardson, M. (2021, January 9). A-level and GCSE cancellation: a missed opportunity to rethink assessment. *The Conversation*.
- Sharon, A. (2020, June 19). Malaysia sets new digital learning ambitions. *OpenGovAsia*.
- Williamson, B., & Hogan, A. (2020). Commercialisation and privatisation in/of education in the context of COVID-19. *Education International*.
- Yap, W. X. (2019, October 16). Dr Maszlee: No more art stream or science stream in highschool next year. *SAYS*.



# Pupil Learning and Well-being in Sierra Leone's Secondary Schools during COVID-19 School Closures

 **Zara Durrani**, Education Senior Consultant, Oxford Policy Management, UK

 zara.durrani@opml.co.uk

 **Ayesha Khurshid**, Assistant Consultant, Oxford Policy Management, UK

 ayesha.khurshid@opml.co.uk

 **Ishleen Sethi**, Assistant Consultant, Oxford Policy Management, India

 ishleen.sethi@opml.co.uk

 **Gloria Olisenekwu**, Education Consultant, Oxford Policy Management, Nigeria

 gloria.olisenekwu@opml.co.uk

 **Sourovi De**, Education Practice Lead, Oxford Policy Management, UK

 sourovi.de@opml.co.uk

## Summary

This mixed-methods Back to School study provides national-level estimates of learning outcomes and child well-being in secondary schools in Sierra Leone. It was conducted immediately after schools resumed in October 2020 after six months of closure for COVID-19. While no significant drop in learning outcomes is detected, learning levels generally remain very low. There is evidence of widening learning inequalities by gender, household wealth and location of school. This study also discusses how Sierra Leone utilised its historical experience of Ebola and applied these to managing the education response to COVID-19.

## Keywords

Learning Loss  
School Closure  
COVID-19  
School Safety  
Sierra Leone

Schools in Sierra Leone closed on 31 March 2020, after the country's first COVID-19 case was confirmed, and reopened six months later, on 5 October. During this time, nearly two million pre-primary and primary, 450,000 junior secondary (JSS) and 300,000 senior secondary (SSS) pupils were not attending school (MBSSE, 2019). This is not new to Sierra Leone – in 2014-15, schools shut for nearly nine months due to Ebola. Evidence suggests the cost of school closure for children's education and well-being was high, and more profound for girls and the poorest pupils. In response to COVID-19, Sierra Leone's Ministry of Basic and Senior Secondary Education (MBSSE) and Teaching Service Commission (TSC) launched a radio teaching programme, distributed rations to pupils in the poorest communities and conducted community sensitisation to keep girls safe. The objective was to safeguard children and promote learning recovery when schools reopen.

The Back to School (BTS) study offers a unique opportunity to use quantitative and qualitative evidence on pupil learning and well-being to guide Sierra Leone's COVID-19 education recovery priorities. The BTS study provides estimates of the learning and child well-being impacts of the COVID-19 shock to Sierra Leone's education system.

Learning materials that pupils had access to and were most familiar with before schools closed were the most commonly used during closures. These included lesson notes from teachers and friends, textbooks, pupil handbooks and past examination papers.

The radio programme was introduced as a distance learning resource during the COVID-19 school closure. About 30% of pupils used the radio teaching programme during school closures, and it was mentioned during discussions that this was not a regular activity (only accessed once or twice a week). More boys reported listening to radio lessons than girls (32% compared to 25%), and a larger proportion of richer pupils reported listening to the programme than poorer pupils (41% compared to 15%). In general, there were challenges in accessing the radio teaching programme as only one-third of pupils mentioned having access to a radio. There were also challenges with batteries, signal and frequency especially for pupils in more rural and remote areas. The radio programme aired during the mornings and afternoons when many pupils were engaged with chores inside the house or in the market.

The BTS results confirm that pupil learning levels in secondary grades in Sierra Leone continue to be very low. For most pupils there is a large gap in actual skills and curriculum expectations. Most pupils are performing at levels much lower than the grade they attend. In maths, only 3% of JSS3 pupils can demonstrate skills expected from a pupil in the JSS3 grade, (that is, they are performing at “grade”), whereas no SSS3 pupils are able to demonstrate maths skills at senior secondary level. 9% of SSS3 pupils demonstrate performance at JSS3 grade in maths (i.e., they have fallen behind by 3 years).

There is very little progression in pupils’ maths learning outcomes as they move up the grades. Most pupils – 61% of JSS3 pupils and 53% of SSS3 pupils – are performing at a level expected at Primary 6 (P6) or below in maths. Even though more SSS3 pupils achieve higher performance bands compared to JSS3 pupils, 80% of SSS3 pupils have fallen behind by up to 5 years (i.e., they are at JSS1 level or below). In fact, none of the SSS3 pupils was able to demonstrate maths skills any higher than JSS3.

Boys performed better than girls on average across both grades and subjects covered in the BTS study. The performance gap between boys and girls widens substantially from JSS3 to SSS3. The gender difference is possibly driven by the fact that a significantly higher proportion of boys (81%) reported studying at least 3 days a week during school closure compared to girls (70%). Almost double the proportion of girls as boys (48% vs. 26% respectively) reported having extra work at home when schools were closed. In discussion with respondents, it appears that girls were more likely to be engaged in “petty trading” during

the school closure and were more vulnerable and subject to sexual harassment.

There were significant differences in pupil behaviour during school closures between less and more remote schools. A higher proportion of pupils in less remote schools reported studying daily (five or more times a week). They were also more likely to have used alternative learning sources such as the internet and private tuition and had help while studying, mostly from members of their household.

Pupils from wealthier households perform better than pupils from poorer households. Family wealth and parental involvement and education play a significant role in determining pupil performance. The performance gap between pupils from the richest and the poorest households held across both grades and subjects. The largest performance gap between richest and poorest households was observed for SSS3 pupils in maths.

A higher proportion of richer pupils reported studying during closures as well as studying daily. Richer pupils were also more likely to have access to resources and support such as help from a parent or sibling while studying, having a tutor or access to a radio to listen to the radio teaching programme. On the other hand, pupils from the poorest households reported facing financial challenges, difficulties while studying when schools were closed and a lack of access to necessities (electricity, required technology for learning and washing and sanitation facilities), all of which disturbed the amount and quality of time spent studying.

Nearly half (45%) of the sampled pupils self-reported that they had faced some type of challenge during the school closure including financial hardship, additional domestic chores, violence and exploitation, emotional stress and physical and sexual abuse. Older pupils (SSS) were significantly more likely to report challenges compared to younger pupils (JSS). Girls and pupils from poorer households suffered more with nearly twice the proportion of girls as boys reporting extra work at home; and significantly more pupils from poor households facing financial challenges and lacking access to basic necessities. These challenges not only directly affected pupils’ health and well-being, but also influenced their ability to learn during school closures.

In some cases, these challenges had a long-lasting impact on school attendance and dropouts after schools resumed in October 2020. The lockdown and associated restrictions on movement, school closure and economic shocks for families disrupted pupils’ routine and social interactions and exposed them to risk of abuse. Girls faced risk of violence and exploitation from various perpetrators within their homes and in the wider community.

*Some girls were abused in the very house they lived in. If it was not the uncle, it will be the aunty, cousin or neighbour... it doesn't matter if they are rich or poor or in the most remote part of the country. It is the same for all of them.*

*(School Management Committee member, JSS School, Western Province)*

*Some children live with parents or guardian who are wicked... will ask them to bring money [by selling] or then leave the house... This will cause children to go to the street, especially girls, and when they do, you will see foolish big men who will see the girls in the street and ask them what is the problem? After explaining the problem, the men will ask the girls for sex before they can help them.*

*(Girl JSS3 pupil, North-Western Province)*

Financial struggles and domestic frustrations increased risk of physical violence and abuse against children. Some parents of female pupils were encouraged to find a suitor or forcefully give their hand in marriage as a result of uncertainty around school resumption, economic hardships and parents' fears for their children's safety in terms of being impregnated out of wedlock. Boys, especially in more central or urban locations, faced increased risk of negative peer influence and exploitation. There are many parallels here with Sierra Leone's experience of Ebola. Physical and sexual violence against children increased with a substantial rise in teenage pregnancy rates, often linked to rape or transactional sex to secure basic goods and services.

Children usually prefer to discuss well-being challenges or seek help from family or friends; however, this becomes more complicated when the perpetrators of abuse are from a child's immediate circle of trusted adults. Although a significant number of pupils are aware of formal support systems, in particular their local community health centres (CHC) and family support units (FSU), these are often not used as much as other community support services.

Many children suffered from hunger and shortage of food during school closure. Dry rations were distributed by MBSSE to families in some communities. However, for most pupils, financial challenges coupled with the loss of free school meals meant that children, especially those in the provincial regions, were unable to secure sufficient nourishment. This affected their physical well-being as well as their concentration and motivation to study. This "hunger virus" was reportedly more terrible than COVID-19 itself with lingering impacts despite the resumption of schools. Some pupils suffered from a lack of food at home and were said to come to school on empty stomachs. As a result, they did not have energy to participate in class and learn. School representatives understood and sympathised with these pupils, but there was often little they could do to tangibly change their situation.

Ensuring the safe reopening and return of pupils to schools is a clear priority across the chain of actors in the secondary school system of Sierra Leone, but there is a gap between intention and action. Detailed guidance material and protocols have been developed and shared with schools. However, there are challenges with implementation and compliance, especially in an education system where most schools are already struggling and under-resourced, irrespective of COVID-19. These additional demands create further challenges for school administrators, although the commitment to keep children safe is strong.

Children spoke evocatively about challenges to their emotional well-being during school closures. Without the daily routine and structure of school, reduced socialisation with friends, and learning being reduced to listening to a distant voice on the radio, children shared that they experienced feelings of "stress", "anxiety", isolation and depression, which they linked to lack of contact with their school community. One is reminded here of Takayama's (this issue) rethinking the "very experience of time" when the external structures of "clocks and calendar" is stripped away from daily life and the resulting disorientation on the one hand, while the simultaneous bewildering race to still feel productive and carry on with "business as usual" through radio learning programmes to complete the examination syllabus.

The significance of historical time is very real in relation to this pandemic. Sierra Leone's experience of Ebola in 2014-15 has similarities with the recent COVID-19 experience, and demonstrates areas where the education sector, in particular, seems to have learnt lessons and brought these insights in managing COVID-19. In view of this MBSSE launched an immediate and proactive response to protect students and their education during the school closures. This involved:

**Radio lessons:** Building on the radio programmes used during Ebola, to continue children's connection to learning, radio lessons, called 'On Air', were started within the week and delivered through the airwaves five days a week.

**Targeted support for the most vulnerable children:** Orphanhood from Ebola deaths and forced absence from schools for 10 months had led to a range of unintended social and economic consequences – transactional coping strategies, sexual harassment and teenage pregnancies which rose by almost four times compared to pre-Ebola average. To protect child safety and well-being during COVID-19 school closures, community sensitisation programmes on girls' safety were organised and dry take-home rations were distributed to the most vulnerable communities.

Shortly after schools reopened, the MBSSE, through this back-to-school study assessed the extent of learning loss and identified areas for remediation. Sierra Leone's lessons from managing the education impact of the Ebola pandemic not just provided the foundation for its own national COVID response, but also provided valuable reflections and lessons as well as valuable insights for other countries facing shutdowns of their education systems due to the COVID-19 pandemic.

## References

MBSSE. (2019). *Annual School Census*. Sierra Leone Ministry of Basic and Senior Secondary Education (MBSSE).

## **Acknowledgement**

*This research was conducted as part of the Sierra Leone Secondary Education Improvement Programme (SSEIP) a five-year (2016-2021) UKaid-funded programme aimed at improving English and Maths learning achievement in secondary schools, implemented by Mott MacDonald and Oxford Policy Management. Any views and opinions expressed do not necessarily reflect those of UK Foreign Commonwealth and Development Office, Sierra Leone Ministry of Basic and Senior Secondary Education, Mott MacDonald or Oxford Policy Management.*

# Part 5

## **Affect**

# Education and COVID-19 through the Lens of Affect

 **Irving Epstein**, Ben and Susan Rhodes Professor of Peace and Social Justice Emeritus, Illinois Wesleyan University, USA

 iepstein@iwu.edu

## Summary

Theories of affect highlight the ambiguities and challenges experienced during the pandemic. I examine four themes in these theories: intensity of encounter, meaning-making, assemblage and contingency, commenting on their contemporary relevance. These themes highlight the larger social tensions the pandemic has unmasked, their complex and contradictory nature, and situates educational practice within a larger social context. In so doing, they attest to the problems educators have confronted in attempting to address the needs of children and their families and reiterate the ways in which the limitations of our educational responses mirror broader social practices and trends.

## Keywords

Affect

Meaning-Making

Contingency

Assemblage

Intensities of Encounter

It is fashionable to predict what scholars and historians will emphasize when they look back upon the COVID-19 era with respect to its impact on educational practice. Some commentators have already opined that the systemic structural inadequacies of educational provision, apparent in multiple global and national contexts, have been highlighted in such dramatic ways by COVID-19 that their deleterious effects may remain visible even after the virus subsides (Carvalho & Hares, 2020; Save the Children International, 2020; United Nations, 2020). Others prognosticate that education, particularly higher education, will never be the same in the pandemic's aftermath, and that many of the modifications that have been made to address contemporary exigencies will become permanent (Witze, 2020). To the extent that such prognostication has value, it lies more in what it says about our contemporary perceptions of our COVID-19 educational experiences than in the power and accuracy of prediction during such uncertain times. But even if we acknowledge that the penchant and need for prediction is a natural, if therapeutic, outcome of the precarity we confront, I suggest that it may be more useful to examine what cannot be easily codified or explained, and what future generations may fail to appreciate about our responses to the pandemic.

The assumption that one can ever “know” the past is a conceit few would wish to defend, given the different functions of historical, personal, collective and social memory, their respective limitations, and the differing contexts in which they are expressed. Perspectives that are buttressed through the distance of time too often fail to appreciate the urgency, intensity and fragmentation that characterize so many contemporary experiences. This is why many have looked to the power of metaphor to more forcefully communicate the lived realities of COVID-19. In this vein, Albert Camus' (1948) *The Plague* has been “rediscovered” as an elegant chronicling of the varieties of human experience evident within an unanticipated, uncontrollable and catastrophic time (de Botton, 2020; Illing, 2020). Although Camus' allegory was meant to reference World War II and the spread of fascism, the reactions of the novel's characters: their resistance, acquiescence, indifference and the inadequacy of specific

responses, overshadowed by unpredictability accompanying the plague's development and denouement, speak to contemporary sensibilities.

For those examining educational concerns amidst the pandemic, it seems we have two choices that can govern our analyses. We can identify current challenges in an effort to problematize and problem-solve, reflecting upon the strengths and weaknesses of our educational efforts to address our children's critical needs, along with the institutional rules and rituals that have impeded or supported these efforts, and then lobby for necessary improvements. Many of the commentaries in this issue reflect this perspective. Alternatively, we can attempt to look deeper, more holistically into the ways in which educational issues contribute to the framing of human experience in a time of catastrophe, reflecting upon the ambiguities and crosscurrents marking that experience. Such an appreciation neither demands nor requires the type of praxis associated with educational reform. It does recognize the polymorphous nature of teaching and learning under even the best of circumstances, and further highlights the pain, struggle and indeterminacy that have been reflective of differing forms of educational engagement during the past 18 months. Although our understanding of the nature of educational interaction and our day-to-day encounters with the pandemic is evolving, an appreciation for their complexity and ambiguity is, I believe, a necessary predicate before one can begin to imagine future possibilities. I believe that this latter perspective is best achieved through applying the lens of affect to investigation (Epstein, 2020).

Theories of affect contribute to a broader post-humanist perspective that challenges Enlightenment-influenced assumptions that identify human exceptionalism with consciousness and rationality (Carney & Madsen, 2021). They question the boundaries as to what it means to be human noting the relationships we develop with non-living entities (such as those expressed within cybernetics, artificial intelligences, genetics and prosthetic usage), and the ways these influence our lived interactions with one another. Four concepts within affect theory are especially significant: intensity of encounter, meaning-making, assemblage, and contingency (Epstein, 2019). Each plays a role in defining the general sensibilities of living in the 21st century, and speaks to some of the realities of a COVID-19 existence.

The concept of "intensities of encounter" was popularized by Deleuze and Guattari (1987). Drawing upon writings of Spinoza and Bergson, they argued that the affective interactions we experience with bodies around us are dynamic rather than fixed. All elements of the natural world exhibit qualities of emergence and potentiality. Intensity of encounter posits interconnectedness as a key element

of our existence in contradistinction to individualized and autonomous notions of the self. In many ways, there can be no greater evidence for the impact of non-human entities upon our lived experience than the COVID-19 virus, a non-living entity, unable to survive on its own until it invades the human body. But I view our specific educational interactions, influenced by the pandemic, as particularly illustrative of the lived intensities of encounter.

At one level, "intensity of encounter" directly relates to issues of remote learning and school closure. More and more students, parents and teachers have discovered that the performativity embedded in remote learning technologies is a questionable substitute for the interpersonal interactions that comprise typical classroom activity. The default muting of the Zoom microphone in order that another's voice be heard and the teacher-centric structuring of group discussion that ensues, create an artificiality that reshapes student/teacher communication and perception. Students, whose presence and classroom participation are mediated by the computer screen understand the superficiality of a relationship controlled by technological structures that interfere with direct and authentic contact, be it through synchronous or asynchronous engagement. Appadurai and Alexander (2020) speak of a globalized era where failure without consequence or accountability is not only tolerated, but even applauded, as a force driving neo-liberal sensibility. They view global financial behavior, which reifies risk taking in the pursuit of personal economic profit) while minimizing the repercussions of economic failure and loss, as having reverberated within cultural, social and technological domains. They specifically mention our willingness to dismiss the consequences of digital lag or buffering as a price we are willing to pay for the benefits of internet access. We make similar accommodations as part of our commitment to instructional delivery during the pandemic and accept the artificiality embedded in "Zoom relationships" as a necessary inconvenience during these times without dwelling on negative consequences.

The restructuring of educational interpersonal interaction of course extends beyond the technological choices that enable remote learning. In-person interactions, where they do exist, have necessarily been mediated by mask wearing and physical distancing, creating less sophisticated but nonetheless equally powerful barriers to interpersonal interaction. We are, of course, speaking of the lucky ones, who have the means to access the internet, or attend in-person classes. Thirty-one percent of the global student population has been unable to participate in any type of remote learning because of a lack of household resources or wifi capability (UNICEF, 2020) Thus for many, the intensity is one of systematic disencounter, of being ignored and discounted, because of one's positionality within the digital



divide. A recognition of the power of intensity of encounter compels us to question whether the superficial rules of engagement we have accepted because of the pandemic compromise beyond repair the educational values we purport to promote. If we reject that conclusion, at what point do we acknowledge our role in perpetrating a crude simulation of educational engagement lacking in integrity, marked by the concessions we make to the realities of COVID-19?

Intensities of encounter have occurred in varying degrees outside of the immediate instructional delivery landscape. As the physical closure of the school has contributed to the social shrinking of public space, exposure to academic language has competed with the language of fear, disappointment and anxiety experienced within the students' residential settings. The roles of teacher, parent and student have been redefined, and the interactions associated with each role have been recalibrated in ambiguous ways. What does school learning mean when it is forced to directly compete with the prevailing experiences of illness, unemployment, depression and poverty in students' family environments? What is an appropriate reaction when social roles are not only shifting but are in constant conflict with one another? How do we understand what childhood means when the television image becomes a substitute for meaningful, playful peer interaction that has characterized learning in early grade levels? These are just a few of the conundrums educators have been expected to resolve. Intensities conflict and shift as experiences transform themselves into non-linear memory fragments in the COVID-19 era. But an acknowledgement of their presence is essential if we are to appreciate the impact the pandemic has had upon our daily educational practices.

Wetherell (2012) argues that experiencing affect includes engaging in meaning-making, for it is not sufficient to merely chronicle intensities of encounter without further noting how we make sense of the world. In its essence, engaging in meaning-making involves the pursuit of interconnection, acknowledging the inherent social nature of learning. Making meaning during COVID-19 has required us to confront the many assumptions we have viewed as commonsensical. It has required us to ask difficult questions that elude simplistic answers. Can scientific discovery ever provide us with the tools to effectively eliminate this virus? If so, how long will it take before its complete elimination can be celebrated? How should we deal with variants? When the pandemic was first acknowledged, we argued over how much testing had to occur to be safe and debated whether extensive contact tracing would produce safe environments. When and under what conditions would testing become inordinately intrusive? For many, the pandemic has enhanced their scepticism of conventional authority, be it scientific, governmental or institutional. Nonetheless, the necessity of finding meaning

amidst all the ambiguity is acute. It is the failure to construct uniformly applicable answers to these questions that makes the desire to engage in meaning-making more necessary. This is why the categorical responses to the uncertainties we confront ring hollow, and why the enormity of what we don't know eclipses the tendency to conflate what we wish for with what is knowable and doable.

At the same time, meaning-making compels us to make broader connections. It forces us to acknowledge similarities between the structural violence embedded in educational systems, and reproduced in health care, criminal justice and judicial systems. All involve uneven resource access, and a lack of procedural fairness and of recognition of the needs of minority and disadvantaged groups, hurt most by the effects of the pandemic. Structural violence has been evident in curricular choices that erase the struggles and accomplishments of marginalized peoples, in hiring practices that fail to recruit and maintain a representative teaching force, in inequitable school funding policies, and in testing practices that unfairly limit marginalized groups' access to further educational opportunity. The digital divide and lack of access to internet and online learning for so many children are one manifestation of this.

The material violence, so evident in acts of racial and political repression in the COVID-19 era, complements the structural violence perpetuated by state institutions, including educational entities. But because the COVID-19 virus has reinforced a shared sense of vulnerability and precarity, it becomes easier for us to question traditional sources of authority and to see connections among phenomena that in other situations may appear disparate. During the early months of its transmission, due to the repeated categorical denials of the negative repercussions and effects of the virus, by political leaders in the U.S., Brazil, Mexico, and Belarus, and India, public safety was endangered. Failing to pursue meaning-making during this pandemic became a matter of life and death.

Under such circumstances, the very meaning of the school is being transformed; for a time, schools were identified as a source that potentially spreads contagion, facilitating harm to the public rather than promoting the public good. The school as an idealized site of safety, an incubator of learning, a place where creativity and curiosity can be encouraged, became instead constantly at risk of being shut down and abandoned.

Wetherall (2012) strongly believes that meaning-making involves engaging in purposeful action, and in the COVID-19 era, such action is visible through participation in assemblage. Assemblage refers to various acts of gathering and Latour (2007) connotes the importance of movement in the formation and dissolution of social relationships. The



notion of assemblage recognizes the quintessential social nature of human experience, along with a shared yearning for coming together. Assemblage is expressed in ways that are dynamic, fluid, conditional and transitory. It is ironic that the invocation of social distancing, as a response to COVID-19, has been justified by the promise of future assemblage and more direct social engagement at a later time. Certain assemblages, as expressed through rightist social protest, have been formed with the expressed purpose of perpetuating an ideology that embraces naked individualism, demonstrating a deep mistrust of social experience and refusing to acknowledge the collective responsibility we share toward one another.

In the United States, people of color who are poor have borne the brunt of the illness and death associated with the virus. For many, social distancing is not a realistic possibility. Their survival in pre-COVID-19 times depended on committing to the very forms of assemblage which are now so threatening. Mistrustful of a health care system that has historically offered few supportive resources, plagued with social conditions exacerbated by environmental racism and living in communities with limited economic opportunity, the urban poor (disproportionately people of color) have traditionally relied upon bartering and informal economies that depend on extensive social networking (Venkatesh, 2014; Eldeib et al., 2020). The death rate for African Americans is 3.6 times that for Whites in the U.S., and the death rate for Latinx groups is 2.5 times that for Whites (Ford et al., 2020). This phenomenon occurs globally for all marginalized groups (Bachelet, 2020). Assemblage under pre-COVID-19 conditions may have saved the marginalized; its more recent invocation has threatened their survival. At the same time, some of those who have been forced into situations of assemblage – first responders, health care workers, grocery staff teachers – have been acknowledged for the heroism embedded in their daily work.

Acts of assemblage in the COVID-19 era include collective acts of courage on a mass basis, such as the global Black Lives Matter movement in the aftermath of George Floyd's murder, continued acts of political protest against authoritarianism in Myanmar, Belarus and Hong Kong, and unions fighting to protect teachers from being forced to return to unsafe schools (Berger, 2020). Embedded within political protests is recognition that educational systems must do a better job of becoming more inclusive, addressing historical patterns of racial injustice and standing up for academic freedom amid state repression. It may be the case that the injustices the pandemic has exposed have become more visible in an era where the randomness of illness and death make all of us potential victims.

Contingency overshadows elements of affect, especially during times of crisis. In much of his work, Camus emphasized the absurdist conditions that marked contemporary human experience as is evident in *The Plague*. One can argue that existentialism in general is a philosophical movement that has become less relevant through the passage of time. Its embrace of human freedom amidst its recognition of surrounding absurdity posits a dualism that today seems overly simplistic. But if there are elements in *The Plague* and in the philosophical movement it represented that continue to have resonance, they lie in the recognition that the contingency that marks our lived experience can never be addressed through fearing its presence or exaggerating its negative effects. Instead, it can best be addressed by recognizing the importance of all the different dimensions of affect and their impact upon our varied educational practices.

## References

Appadurai, A., & Alexander, N. (2020). *Failure*. Cambridge: Polity Press.

Bachelet, M. (2020, June 2). Disproportionate impact of COVID-19 on racial and ethnic minorities needs to be urgently addressed – Bachelet. *United Nations Human Rights Office of the High Commissioner*.

Berger, M. (2020, September 12). Teacher unions around the world clash with governments over coronavirus and school reopening plans. *Washington Post*.

Camus, A. (1948). *The plague*. New York: Knopf.

Carney, S., & Madsen, U.A. (2021). *Education in radical uncertainty: Transgression in theory and method*. London: Bloomsbury Academic.

Carvalho, S., & Hares S. (2020, March 30). *More from our database on school closures: New education policies may be increasing educational inequality*. *Center for Global Development*.

de Botton, A. (2020, March 19). Camus on the Coronavirus. *New York Times*.

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*, translated by B. Massumi. Minneapolis: University of Minnesota Press.

Eldeib, D., Gallardo, A., Johnson, A., Waldman, A., Martin, N., Buford T., & Briscoe, T. (2020, May 9). The first 100: COVID-19 took black lives first. It didn't have to. *Propublica Illinois*.

Epstein, I. (2019). *Affect theory and comparative education discourse: Essays on fear and loathing in response to global educational policy and practice*. London: Bloomsbury Academic.

Epstein, I. (2020, May 15). COVID-19 and affect: The view from the United States. *Education in the time of COVID-19 #017*.

Ford, T., Reber, S., & Reeves, R. (2020, July 16). Race gaps in COVID-19 deaths are even bigger than they appear. *Brookings Institution*.

Illing, S. (2020, July 22). What Camus' the plague can teach us about the COVID-19 pandemic. *Vox*.

Latour, B. (2007). *Re-assembling the social: An introduction to actor-network theory*. Oxford: Oxford University Press.

Save the Children International. (2020). The hidden impact of COVID-19 on children: A Global research series. *Save the Children International*.

UNICEF. (2020). COVID-19: Are children able to continue learning during school closures? *UNICEF*.

United Nations. (2020, August). Policy brief: Education during COVID-19 and beyond. *United Nations*.

Venkatesh, S. (2014). *Floating city: A rogue sociologist lost and found in New York's underground economy*. New York: Penguin.

Wetherell, M. (2012). *Affect and emotion: A new social science understanding*. Beverly Hills Ca: Sage.

Witze, A. (2020). Universities will never be the same after the coronavirus crisis. *Nature*, 582, 162-164.

# Affect and Informal Learning Through Adaptation of Workplace Practice

 **Jay Derrick**, Senior Lecturer, UCL Institute of Education, UK

 j.derrick@ucl.ac.uk

 **Tanya Harris**, Arts and Culture Educational Consultant, UK

 tanyahar@yahoo.com

## Summary

A study of the work of freelance creative practitioners exemplifies how adaptations to practice, forced by the pandemic, has produced significant informal learning. The paper reflects on Epstein's (this issue) four modes of "affect" in the context of informal education, suggesting some different interpretations.

## Keywords

Learning

Teaching

Meaning-Making

Contingency and Adaptation

Creative Practice

Work is an important context for lifelong learning. Much learning is informal, but nevertheless makes a significant contribution to personal and professional development over time. In workplaces, social relations, and the arrangement, affordances and limitations of the physical environment for productivity, problem-solving and learning are salient. This contrasts with formal contexts for learning, which tend to foreground official, explicit aspects of curriculum, obscuring features that are tacit, affective and contingent. Each of Epstein's (this issue) four forms of affect are reviewed in the light of evidence from a qualitative study of adaptations made by freelance creative practitioners to work practices, forced by the COVID-19 pandemic (Derrick & Harris, 2020).

## The SOLO project

The East End of London is a base for many self-employed and sole-trader artists and craftworkers, whose work has been particularly disrupted by COVID-19. They are examples of "passionate workers" (McRobbie, 2016), typically concerned about the quality of their work, contributing to the community's quality of life, and earning income. McRobbie (2002) sees these attributes and precarity of employment as features of a rapidly changing Creative Industries sector. This group plays a role in the uniqueness of the area, and in its developing economy. [SOLO: Surviving or Thriving?](#) was a research project funded by UCL's [Listen and Respond programme](#). The aim of the project was to explore the pandemic's impacts on self-employed creative practitioners based in Hackney, and specific changes made to their work in response to the crisis. Extended Zoom interviews with six practising artists enabled them to reflect on their experiences and feelings during the lockdown, focusing on what they learned and changes they made to work. The three artists whose interviews are referenced in this paper are briefly profiled:

VH runs [Hackney Shed](#), an inclusive Theatre Company for children and young people. Lockdown in March 2020 meant the closure of almost every project and activity they were engaged in, including fully rehearsed theatre productions which were just about to start performing to audiences. VH

and her staff, in consultation with some young participants, designed a range of new activities which could take place entirely online. One highlight was a YouTube soap-opera. “We tried doing something different, an online soap opera, which in hindsight was way more work than we anticipated. It’s called [Corona-nation Street](#).”<sup>1</sup>

PB, a community worker and gigging musician, drew homeless people he saw while on his daily exercise. His jobs had dried up, but he saw this as giving him time for visual art: “It’s changed my work. I’ve just been super creative. I didn’t for one moment feel that it was affecting me in a negative way.” He made collages with his drawings, using photographs of the skyscrapers lining the streets and framing the rough sleepers, and then taught himself to add music to his images learning to use composition apps he downloaded onto his phone. [He published them on Instagram](#). Expressing his feelings about the plight of the homeless, he discovered, like VH, capacities he didn’t realise he had: “I spent an entire day in bed with a pair of headphones on and my massive chunky sausage fingers, trying to write music on an iPhone – that was a revelation, of my level of OCD capabilities.”

CS, a photojournalist whose work ceased abruptly, had a chance to talk to his neighbours for the first time while exercising on his street during lockdown: “This is the first time as a community and worldwide, we experienced something like this, and obviously that affects the way we interact and the way we do things.” He began to feel it was important to act as a witness to events impacting on the very diverse people living on his street. He started taking pictures of his neighbours, inviting them to tell their stories. Encouraged by the responses he received, his serendipitous project gradually became [public art](#) via Instagram, leading to an international exhibition and a book: “I’m particularly proud of the way in which it became a community hub; a way for neighbours to connect and get to know each other.”

### **Intensities of encounter**

The experience of COVID-19 has created what Deleuze and Guattari (1968) term intensive encounters. These generate first confusion, then thought, and a process of constructing an account which fits reality. These kinds of intensive encounters provide a way of describing the work of artists and educators, before and after lockdown. The pandemic, while creating difficult challenges, provided new materials and conditions for work, through which the artists were able to produce new kinds of intensive encounters. For CS, this grew directly out of new and richer encounters with his neighbours; for VH, highly pressured team-working was required to redesign their project, requiring new modes of rehearsal and performance: “It was a huge learning curve, because none of us know how to do video editing. We’re downloading software and just trying to learn how to do it – it’s not in any of our skill sets.”

Epstein (this issue) equates the concept of intensity of encounter with “direct and authentic contact”, pointing to the dramatically increased reliance on digital applications for sustaining formal education during the pandemic, and the impossibility of meeting face-to-face. He argues “the performativity embedded in remote learning technologies is a questionable substitute for the interpersonal interactions that comprise typical classroom activity.” VH suggests the picture is more nuanced. The online activities she and her staff hurriedly developed afforded new kinds of educational encounters for both facilitators and users. These are not inauthentic or less “intense”. Unexpected benefits for her users emerged: in a real sense distance was abolished for children who lived too far away to participate in person. The soap opera format they adopted was not compromised by irregular attendance, as a standard theatre production would have been: “We have a handful of young people that got rehoused and they were too far away. But once we started delivering online, they were able to start coming again. They were members that we’d lost that were able to then join us again because the distance wasn’t an issue.”

This suggests that equating online with pejorative senses of remote in relation to learning may simply reinforce the inequalities reproduced by the formal and static institutional structures of education systems; the “intensity of learning encounters” is no longer necessarily a function of physical distance: “Learning can be online but it can’t be remote – learning happens in your head and your body” (Harrison, 2020).

### **Meaning-making and assemblages**

Meaning-making is not confined to formal educational contexts but takes place as part of and through all human activity – as a central element of Arendt’s (1958) concept of *Vita Activa*. The products of meaning-making are referred to by Deleuze & Guattari (1987) as “assemblages”, continually created anew, through processes of “coding”, “stratifying”, and “territorialising”. Work consists of continuous individual and collective meaning-making which entails direct engagement with the physical world, through which new assemblages are brought into being. Insofar as learning and meaning-making are coterminous, the pandemic created conditions in which the practitioners in the study were thrown into a curve of intensive learning and meaning-making, regarding their own capacities and aspects of their specialist practices. VH gained a new understanding of the potential and resilience of her organisation – co-constructed with funders, trustees, colleagues and young clients. The participants in the soap-opera project collaboratively created new meanings in relation to production and performance, demonstrating capacity for hard work and resilience in the face of a crisis. CS contributed to the creation of new modes of communication, recognition and identity for his

neighbours and himself, extending their potential for the creation of new meanings and assemblages. PB sees the pandemic as a reminder of the danger of hubris: “Ask anyone who had somebody die of AIDS in the eighties. Something not human comes along and wipes out this arrogant belief that we’re in control of a system.”

## Contingency

Contingency meant that a rapid period of learning was suddenly imperative for VH and her team: they learned about the design of new modes of performance, online teaching and learning with young students with special needs, and how to use digital video conferencing software. The lockdown forced new conditions on both VH and SC. In different ways within circumstances which simultaneously provided new constraints and opportunities, each shaped their work. PB on the other hand deliberately cultivates both contingency and agility to enrich his work: “Sometimes you need to stop drawing the figure that you know, and just scrawl, lose your skill a bit – give it freshness. You won’t lose the stuff you’ve learned, you’ll find some new avenue for it. It’s a survival strategy. You put your ideas in a suitcase, and if you have to leave suddenly, you can reopen that suitcase and there’s your culture and there’s your ideas. If you can’t put it in a suitcase, it’s not a very good idea.”

## Conclusion

The phenomenological view of workplace practice supported by this study suggests that the contingent aspects of any situation are always simultaneously both inhibiting and enabling, and these effects are “entangled” (Derrick, 2020). In this view, work consists of collective manipulation, exploitation and management of these entanglements, through the process of which practice is shaped and practitioners are developed, for better or worse. This dynamic view, put into the spotlight by the disruptive experience of the pandemic, offers an alternative account not just of artists’ practice, but of the complex and adaptive work of educators, whatever setting they are working in, suggesting that, to some extent, we are all teachers. This counters the idea that teachers are merely conduits for the “delivery” of pre-packaged curricula to students thirsty for the “acquisition” of knowledge (Sfard, 1998), suggesting rather that, like creative sector practitioners, their role is to design and facilitate participatory schemas for intensive encounters and meaning-making.

## Endnotes

1. This refers humorously to a long-running British TV soap opera called Coronation Street

## References

- Arendt, H. (1958). *The human condition*. Chicago: University of Chicago Press.
- Deleuze, G., & Guattari, F. (1968, 1994 ed.). *Difference and repetition*. New York: Columbia University Press.
- Deleuze, G., & Guattari, F. (1987, 2004 ed.). *A thousand plateaus*. London: Bloomsbury.
- Derrick, J. (2020). ‘Tacit pedagogy’ and ‘entanglement’: practice-based learning and innovation. *Journal of Workplace Learning*, 32(4), 273-284.
- Derrick, J., & Harris, T. (2020). *SOLO: Surviving or thriving?* London: UCL.
- Harrison, B. (2020, November 6). *Why there is nothing remote about online learning*. TES.
- McRobbie, A. (2002). From Holloway to Hollywood: happiness at work in the new cultural economy? In P. du Gay & M. Pryke (Eds.), *Cultural Economy*. London: Sage.
- McRobbie, A. (2016). *Be creative: Making a living in the new culture industries*. Cambridge: Polity Press.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), 4-13.

# School's Out for COVID: EdTech's Capacity to Support Student Welfare During Crises

 Alexander Towne, Research Assistant, University of South Wales, UK

 ac.towne@hotmail.co.uk

## Summary

This article explores the short-term effects of school closures in middle-lower income contexts, and how EdTech solutions have been able to support student welfare. Drawing on a review of EdTech responses compiled by Save the Children and its partners, the study establishes all children suffered adverse consequences from school closures, and the limitations of EdTech solutions in supporting student welfare.

## Keywords

Welfare  
EdTech  
School Closures  
Distance Learning Modalities  
Affect

In order to slow the spread of the COVID-19, governments around the world have implemented a range of non-pharmaceutical interventions (NPI). The effects of NPIs have been far-reaching and have arguably impacted those most who have the least to fear from the virus: namely, the young. The NPI that has had the most significant consequences for younger generations has been the closure of schools. Epstein (this issue) introduces a theory of affect, which highlights many educational harms of the pandemic.

In Epstein's terms, school closures represent a mandated reduction in assemblage (the ability to socially come together). What impacts on child welfare, physical and mental health, and child safety are entailed? My study examined EdTech solutions in the context of COVID-19, exploring aspects of affect.

## The study

The study was a mixed method review, examining how Save the Children and its partners adapted their programmes to support learning throughout the COVID-19 crisis using EdTech. The review sampled nine education programmes in middle-lower income countries. None were nationwide. All operated at provincial level or a smaller location. The evaluation and scoring framework for the projects looked at: Equity, Effectiveness, Sustainability, Relevance, and Welfare. Equity was defined as quality education that is fair and equal for all, which meant a person's ability to engage in quality education was not determined by any characteristics of person or circumstance, such as disability, gender, or socio-economic background. Effectiveness was defined as quality education that is evidence based and produced desired outcomes. Sustainability was defined as quality education that can be sustained at the intended level and does not require vast amounts of continued external funding, resources or knowledge. Welfare was defined as quality education that could ensure integrated pastoral care and build resilience with attention given to beneficiary safety, wellbeing and empowerment. Relevance was defined as quality education suitable to the circumstances, designed with beneficiaries building on pre-existing infrastructure, and adapted to respond to contextual challenges or changes.

The scoring framework used an ordinal system, with associated rubrics, so that programmes were rated poor, satisfactory, good or excellent. Three tiers comprised an overall rating, the tenet rating and scores from the individual area of interest within each tenet. The individual area of interest's scores makes up the tenet rating and the tenet scores are combined to produce the overall rating. The individual areas of interest were identified in line with the tenets and then mapped against the principles for digital development and the Save the Children principles for EdTech engagement. The information that informed the evaluation was collected from project documents and interviews with programme team members. Evidence was compiled from Afghanistan, Colombia, Lebanon, Malawi, Nepal, Pakistan, the Philippines, and Rwanda, where responses focused on children between the ages of 3 and 15 (Table 1). Non-formal education programmes were assessed, reaching between 739 and 51,000 students. Programmes with smaller reach were delivered through WhatsApp. Those with the greater reach were delivered over the radio.

**Table 1.** Learning modalities by country

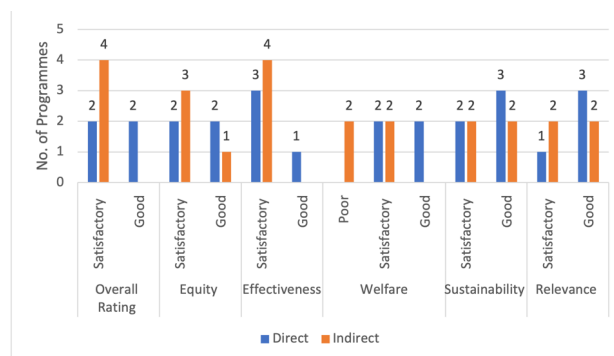
Learning Modality Type	Country	Main Modality
Direct	Afghanistan	Printed home-learning materials, with teacher guidance over the phone.
	Colombia	Printed home-learning materials, with teacher guidance over the phone and supplementary radio and podcast sessions
	Lebanon	Multimedia lessons via WhatsApp
	Pakistan	Multimedia lessons via WhatsApp
Indirect	Malawi	Radio
	Nepal	Radio
	The Philippines	Materials uploaded to social media and E-Learning Platforms
	Rwanda	Radio

There are clear limitations on the extent to which EdTech solutions can support student welfare (Figure 1). All programmes introduced a messaging campaign to support students and their families during school closures. These were delivered through radio, SMS, TV and community networks. They sought to raise parents' awareness of COVID-safe behaviours, gender-based violence, good nutrition and positive parenting.

Two kinds of EdTech programmes were noted: those that provide direct interaction between the beneficiary and the teacher, and those that did not (Table 1). Countries that used an indirect modality (where arrangements lacked "assemblage") had limited understanding of individual students' circumstances, and relied on surveys (Malawi, Nepal and Rwanda) and focus groups (Nepal) for an overview of beneficiary welfare. All programmes using indirect modalities were reliant on self and community volunteer referrals to identify at-risk children, which undermined the effectiveness of the approach regarding affect.

Direct learning modalities, which permit some assemblage, were more effective as they allowed for monitoring individual children. This interaction offered opportunities to train teachers to identify child protection and welfare issues. Programmes in Lebanon and Pakistan were able to report on individual students on a weekly basis. The programme in Lebanon incorporated a range of socio-emotional activities in the learning process. This fed back into an understanding of students' wellbeing and demonstrates a wide range of monitoring and support opportunities that direct modalities can provide. Nevertheless, narrative evidence from Lebanon suggested that direct modalities were unable to comprehensively support students' welfare, suggesting EdTech cannot replicate the benefits of face-to-face interaction.

**Figure 1.** Evaluation results by modality



Source: Adapted from unpublished Save the Children report "COVID-19 EdTech Solutions".

The study was unable to provide robust evidence of how school closures affected child welfare. Nevertheless, some insights emerged from the interviews with programme teams and wider surveys conducted by Save the Children and its partners, which informed both the programmes and this study. One interviewee from Malawi stated that "away from school, children lead a normal life, playing with siblings in the neighbourhood, without putting on masks, and so seem to be more vulnerable than when they are in school". This raises concerns as to school closures' impact on the spread of COVID-19 and the safeguarding of child health. In Nepal and the Philippines, some evidence suggests there has been



an increase in violence against children. For example, in a random sample survey of Save the Children parents/caregivers in three Nepalese provinces (n=410), 37% of respondents stated that violence against children had significantly increased during the lockdown period. The child welfare concerns that came to light in this study were not uniform and vary from context to context. However, in all settings, the evidence suggests that children are suffering adverse consequences from the closure of schools.

The findings also indicate that school closures have had particularly harmful effects on girls. In Afghanistan, Lebanon, Pakistan and Rwanda programme teams report that girls have been required to participate more in household chores, which has limited their ability to engage in distance education. In Rwanda, interviewees reported an increase in school aged pregnancies and female dropouts. Furthermore, there have been concerns raised about the psychological effects of school closures on girls. For example, in a survey conducted across nine provinces in Afghanistan of girls aged 10 and over, who are enrolled in an accelerated learning programme (n=510), 70% of the girls who reported having severe anxiety or depression (29% of respondents) stated that their depression levels had increased since the start of the crisis.

## **Conclusion**

Epstein writes of the importance of “intensity of encounter” (quality interpersonal interaction). In many contexts, EdTech solutions failed to provide any information at all about individual students’ circumstances during the closures. Whilst different contexts and different technologies have had different effects, the projects’ scores suggest EdTech solutions are limited in their capacity to provide the wider student welfare support that has become an inextricable part of modern schooling.



# Japanese University Student Experiences During the COVID-19 Pandemic

 **Phillip M. Clark**, Adjunct Instructor, School of International Studies, Kwansai Gakuin University, Japan

 clarkphillip@hotmail.com

 **Kevin P. Ballou**, Lecturer, Faculty of Architecture, Kindai University, Japan

 balloukevin@arch.kindai.ac.jp

 **Richard H. Derrah**, Associate Professor, Faculty of Applied Sociology, Kindai University, Japan

 rderrah@socio.kindai.ac.jp

## Summary

In Japan, COVID-19 has resulted in the closing of physical campuses of many universities, with online learning the new normal. In this paper we focus on student experiences during the pandemic using a Communities of Practice framework, drawing on qualitative data from 133 university students, including written responses and audio recordings, fieldnotes, and analytic memos.

## Keywords

COVID-19  
Pandemic  
Japanese Higher Education  
Communities of Practice

*“...if it was an exile, it was, for most of us, exile in one’s own home.”*

- Camus, *The Plague*

By the end of February 2020, COVID-19 had been confirmed in Japan for just over one month, with the first case detected in early January. Based on rising public pressure and the fear of a rapid spread of the disease, on 27 February, then-Japanese Prime Minister Shinzo Abe asked for the closure of all public primary and secondary schools. This ended the school year (which lasts from April to March) one month early. Schools were requested to remain closed until early April, which would abbreviate the 2020 school year. With COVID-19 cases increasing, the request for closure was extended until the end of May. By that time, the prime minister had declared what was termed a *kinkyuu jitai* or “state of emergency,” initially only for prefectures where infection rates seemed to be spiking, then for all of Japan. Unlike the lockdowns occurring elsewhere in the world, the Japanese state of emergency was simply a strong recommendation for businesses to curtail hours and enact social distancing protocols, and for establishments such as karaoke parlours or bars or other venues serving alcohol to reduce their hours. Sports events such as the sumo tournament in March (and then again in May 2020), professional baseball games, and the long-awaited Tokyo 2020 summer Olympics, were postponed or cancelled entirely. Citizens were encouraged to wear masks in public, to minimise gathering in groups, and avoid the so-called *sanmitsu* or “**three C’s**” of crowded spaces, closed spaces and close-contact settings. No official legal impositions were made, and businesses which violated the official suggestion were simply threatened with being publicly named.

The governing body for education in Japan, the Ministry of Education, Culture, Sports, Science, and Technology (MEXT), released guidelines for public schools on new hygiene and social distancing protocols, and created a plan to provide financial assistance to businesses and schools (MEXT, 2020). On 25 May, lowered infection rates prompted the government to issue a reprieve from the state of emergency hoping that the new protocols had achieved their purpose in curtailing the spread of the disease. Thus ended the first of what was to be a series of waves of infection throughout the country, each wave met by new suggestions for emergency measures, though none reaching the severity of the lockdowns occurring elsewhere in the world. Throughout this period, university administrations were left to determine their own policies. In this paper we discuss the effects of synchronous remote learning on students at two institutions of higher education.

### The centrality of affect in Japanese universities

In contrast to countries such as the United States and Canada, where a belief is that a large focus of universities should be learning outcomes, in Japan, university is viewed as a milieu for students' personal and professional growth through the development of human relationships. This mainly occurs, not in the classroom, but in clubs or circles (see Cave, 2004), part-time jobs, the assorted activities of zemi (roughly translated as "seminar classes"), informal consultations with professors, and even drinking parties. In Japan these activities associated with students' lives in any country are seen as not a sidebar to university life, but as its primary, "hidden" role (Kelly, 1993). As Poole (2010) has suggested:

*... (in Japan) although students and professors are in a formal, contractual relationship through university tuition fees, it is not teaching and learning that organize activity, but the activity of college life that organizes teaching and learning. Both students and professors are focused on the activity of college life, which in turn provides opportunities for learning, not the reverse. (p. 10)*

Within the "activity of college life," Japanese university students navigate commonplace concerns such as which classes to take, which teachers can help with employment in what fields, and, how to adapt to the hierarchical conventions of "joining society" (shakai sankai; see Roberson, 1995), and learn how to speak acceptably. In other words, interactions and relationships in university have the potential to affect the entirety of students' subsequent lives. Access to these relationships, however, is a negotiated process. Students thus enter a community and participate in shared activities or practices of other students – learning values, understanding expectations, and adopting words or phrases associated with these activities. In the process of developing an identity within the university student community, they absorb information from the collective memory, and make meaning

from this. They, in essence, "become" Japanese university students through a process of joining a community of practice which entails various forms of affect.

The Communities of Practice framework, associated with the work of the sociologists Lave and Wenger (1991), conceptualizes learning through a process similar to that of apprenticeship. Starting with simple tasks, members participate in the community by learning vocabulary, routines, and methods from more experienced members, gradually becoming experienced members themselves. Wenger (1998) moved towards recognizing the negotiation of meaning within communities and stated that "meaning is always the product of its negotiation, by which I mean that it exists in this process of negotiation. Meaning exists neither in us, nor in the world but in the dynamic relation of living in the world" (p. 54). He defined three dimensions of community: "mutual engagement" (community norms), "joint enterprise" (a shared understanding the community's domain) and "shared repertoire" (the knowledge and activities used to pursue the joint enterprise) within which meaning is negotiated in a particular setting. These dimensions may be linked to three elements of affect described by Epstein (2019; this issue): intensity of encounter, meaning-making and assemblage. Mutual engagement and intensity of encounter are entailed by the interpersonal interactions and rules of engagement utilized by community members. Meaning-making is inherent to the joint enterprise of a community, and "a shared yearning for coming together" (Epstein, this issue). Assemblage is innate to the shared repertoire of a community of practice.

Students entering Japanese universities negotiate meaning within three dimensions of a community (Wenger, 1998). The first of these, mutual engagement, consists of the shared activities and interactions members engage in to develop and learn from one another – students commiserating across desktops over assignments, for example, or, for first-year students, simply following others to the right room on the right day. Joint enterprise, the second dimension of community, includes a myriad of personal and interpersonal aspects inclusive of, but also transcending, the objective of university graduation. Complex practices such as finding one's place, thinking about the future, or simply having fun, do not require agreement by all members within the community, but do require the mutual negotiation of these practices. This, in turn, develops mutual accountability. The final dimension, shared repertoire, consists of strategies learned and developed over time by a community of practitioners. In the case of Japanese university students this could be shared knowledge of what clubs to join or what zemi to take. The COVID-19 pandemic has radically altered the negotiation of meaning and practices within these three dimensions of the Japanese university community of practice and within the theory of affect.

To examine how online education shaped these processes of meaning making and affect for students in two Japanese universities, we collected data from 133 students enrolled in three different departments at two private universities in Japan, both of which utilized synchronous remote learning. Fall 2020 was the second of two semesters in which participants had conducted all university obligations online (including course registration, class work, and passive receipt of syllabi instructions). Data include student voice recordings, essays and short answer responses, collected as part of student coursework, as well as our fieldnotes and analytic memos. Some responses were translated by the authors into English from the original Japanese.

### Classroom communities

The data from Fall 2020 expressed a resigned submission to the inevitable, what might be called *gaman* [perseverance or patience] in Japanese – which is not to say that students were content. The most consistent complaint regarded the lack of interaction with peers. “I think the difference between taking classes online and in a classroom,” wrote one student, “is the difference between having friends and not having friends; being able to do things and not being able to do things.” For first-year students a common refrain was that, despite seeing others’ faces in online classes, they did not feel that they knew anyone. “I had never (physically) been to university...so I had no friends,” wrote one student. He continued, “Therefore, there was no one to consult when I was in trouble.” Students who had attended university normally the year before noted that the typical between-class commiseration with peers was gone, particularly in language classes where the mandate to speak only English during class limited interaction: “In classroom lessons, I can make friends by having conversations with friends in Japanese during breaks. This makes it fun to talk in English during class. However, it is difficult to do online because I have a compulsory conversation only in English when I take classes.”

Comments about interaction with teachers varied, with some appreciative of teachers’ efforts and others disappointed in the style of teaching and lack of feedback, or frustrated by technical issues such as dropped connections, broken audio or frozen screens. Others lamented the lack of engagement: “There were some classes where the teacher spoke only one-sidedly, and it was hard to concentrate at times, so there were times when I wished we had more time to think for ourselves.” Viewing classes through a video screen also fell short of satisfying the requirements of a classroom for many students. One student wrote: “I didn’t feel like I was taking a class, but just watching.” In some cases, even “watching” was not part of the class, as in when students (or teachers) did not use their video function: “I had to communicate with classmates and teachers only by writing messages. Without seeing their face it is almost the same as studying

alone.” Another suggested that the normal confusion in class when confronted with unfamiliar material was made worse: “When I stay home all the time...there is no one to talk to about assignments or things I don’t understand.” One comment which summed up many was: “The worst thing about studying without going to campus is that I don’t feel like I’m studying.” These accounts echo Epstein’s (this issue) perception that “more and more students, parents, and teachers are discovering that the performativity embedded in remote learning technologies is a questionable substitute for the interpersonal interactions that comprise typical classroom activity.”

### Club communities

Clubs are considered an important part of Japanese university culture, and university graduates who have been involved in clubs develop useful life skills (Amano & Poole, 2005; Shinobu, 2014). By no means frivolous extracurricular activities, clubs serve many purposes – primarily a means of socializing young people into practices of the culture of the working world it is intended they will later inhabit. Clubs are, to some Japanese students, so important that they are “the main purpose” in attending a university (McVeigh, 2002, p. 216). Clubs reinforce everything from hierarchical roles (such as the *senpai/kohai* relationship; see Enyou, 2013) attached to all Japanese social interactions, to the importance of maintaining close group solidarity (*nakama zukuri*), to providing practice in cultural norms regarding the social drinking of alcohol (Cave, 2004; McDonald & Sylvester, 2013). The sudden retraction of these avenues of socialization is a potential impediment for many students for whom club membership was important. In answer to the question of what was the biggest disappointment in the time of COVID-19, one student wrote succinctly: “I’m most disappointed that there are no club activities where we can meet other people directly.” Not only were newer members unable to find *tutelage* under the guidance of their seniors (*senpai*), but senior students were in turn unable to guide new members. One second-year student wrote: “We cannot invite freshmen to our club this year because of the pandemic. Some freshmen are willing to join our club, but I haven’t met them yet.” As Epstein (this issue) has noted, “it is deeply ironic that the invocation of social distancing as a response to COVID-19 is justified by the promise of future assemblage and more direct social engagement at a later time.”

### Access to mentors

Some students noted with disappointment that the limitation of student-student or student-teacher interactions created barriers to planning their future. Of the various classes offered in Japanese universities, *zemi* are some of the least academic but most practical, allowing students access to mentorship and connections for future careers. *Zemi* teachers shepherd students through their final theses (*sotsugyō ronbun*), host

guest lectures, social events, and training camps (gasshuku) so members can interact. For students in their second year, consultation on choosing a zemi became much more difficult without familiar contexts. “I can’t meet my classmates, teachers, and friends,” complained one student, “we can hardly have a chance to talk to teachers outside of classes. That made it difficult to decide next year’s zemi class.” For students who participated in “virtual” zemi, the experience was no better: “I was very sad,” wrote one student, “I have a seminar as a third-year student, but I haven’t seen all of my friends, and I felt it was a shame that we didn’t become close even though we were in a small seminar class.”

### **Finding the good; affect and meaning-making**

Not all responses were negative. For many, virtual instruction meant that they did not have to fight through crowded public transport: “I enjoyed the fact that I didn’t have to commute to school, so I could use the time as I wished.” Another wrote: “I was able to change/convert the time I used to spend commuting to school into free time for myself.” One student took a reflective, almost philosophical stance: “Compared to last year, when I went to school mechanically, I think I’ve started to think and act more on my own.” One student poignantly reflected on her original goals for attending school, and how the pandemic had forced her to alter them: “I entered this English department because I wanted to go to study abroad. But now I don’t know if I can... I realized that I will not have any career at all. I thought that studying abroad would expand my horizons... But I think there are other ways such as going to get a certificate or participating in volunteer work, so I realized I have to take action now to satisfy myself.” In a sense, students re-evaluated how they, as suggested by Epstein (this issue), made “sense of the world” and their connections within it.

### **Conclusion**

Participants in this study proved themselves acutely aware of the vacuum effect of the lack of assemblage and decidedly low intensities of encounter during their time in virtual classrooms. Mutual engagement consists of norms of a community, which in a usual school year would be recurring, and to some degree predictable. During the pandemic all such norms were altered. Even teachers were left without a clear understanding of how to approach dealing with students, or other teachers. They were faced with an unprecedented environment where basic ideas such as how and when to conduct a class became fluid. In the video classroom, that closest simulacrum of a physical lesson, interactions for all class members were limited to teacher-determined academic oriented activities. Assemblage then became, for students, a passive sitting in front of a computer and waiting for figures to appear on the screen. Some students, in their hopes for club activities to someday resume, relied on the “promise of future assemblage” (Epstein, current issue).

Joint enterprise, or a shared understanding of the norms of a Community of Practice, was muted. While students may have had a chance to commiserate in such virtual venues as so-called “breakout rooms,” these instances were brief and could end at any moment. They were limited to the scope of whatever assignment may have been given by an instructor – assuming students had understood well enough or were sufficiently animated to complete the lesson at such times. Once the lesson ended – or more precisely, once the teacher decided to end the Zoom meeting – rather than any social interaction, screens went black, and students found themselves again isolated in their real-world rooms. To suggest that these “encounters” between students, if that is what we can call them, were of “low intensity” seems an understatement at best.

Any shared repertoire, or knowledge and activities used to pursue the joint enterprise, could, based on this lack of any real assemblage, only be shared virtually. In order for such a shared repertoire to manifest, students would need to take action (via tools such as email or instant messaging) beyond the context of not only the classroom but the university space. The physical environment of the university campus and its hallways, coffee shops and other social gathering places was simply no longer accessible.

Researchers in higher education often focus on the university in academic terms, and in research concerning the pandemic, effects on the education system are viewed in terms of classroom learning and affect. In Japan, we argue that while the pursuit of academic rigor is by no means absent from higher education, an equally important purpose of the university remains the extra-classroom personal development of the student, providing opportunities for social exploration and learning which can be used to facilitate movement into the world of later employment and life as a citizen.

University administrators’ decisions to close or limit entrance to school campuses and facilities will not completely eliminate the opportunities for such communities of practice to develop. But student perceptions suggest that limitations imposed as a result of the pandemic may have altered these communities in dramatic ways, the consequences of which have yet to be determined.

## References

- Amano, I., & Poole, G. (2005). The Japanese university in crisis. *Higher Education*, 50(4), 685-710.
- Cave, P. (2004). Bukatsudō: The educational role of Japanese clubs. *The Journal of Japanese Studies*, 30(2), 383-415.
- Enyo, Y. (2013). *Exploring senpai-kohai relationships in club meetings in a Japanese university*. (Unpublished doctoral dissertation). University of Hawai'i at Mānoa.
- Epstein, I. (2019). *Affect theory and comparative education discourse: Essays on fear and loathing in response to global educational policy and practice*. London: Bloomsbury Academic.
- Kelly, C. (1993). The hidden role of the university. *A handbook for teaching English at Japanese colleges and universities*, 172-192.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- McDonald, B., & Sylvester, K. (2013). Learning to get drunk: The importance of drinking in Japanese university sports clubs. *International Review for the Sociology of Sport*, 49(3/4), 331-345.
- McVeigh, B.J. (2002). *Japanese higher education as myth*. M.E. Sharpe.
- MEXT. (2020, April 7). *Package of Emergency Economic Measures*. MEXT.
- Poole, G. S. (2010). *The Japanese Professor: An ethnography of a university faculty*. Sense Publishers.
- Roberson, J. E. (1995). Becoming shakaijin: Working class reproduction in Japan. *Ethnology*, 34(4), 293-313.
- Shinobu, C. (2014). *Daigakusei no jiritsu to shakai-sei no ikusei: Zeminaru to kurabu sakuru wo jirei to shite* [Developing autonomy and sociality of college students: A case study of seminars and clubs/circles], *St. Andrew's University Departmental Bulletin*, 55(4), 335-376.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.



Part 6  
**Nature**

# The Best Vaccine: Nature, Culture, and COVID-19

 **Jeremy Rappleye**, Associate Professor, Kyoto University, Japan

 rappleye.jeremy.6n@kyoto-u.ac.jp

 **Hikaru Komatsu**, Associate Professor, National Taiwan University, Taiwan

 kmthkr@gmail.com

 **Iveta Silova**, Professor, Arizona State University<sup>1</sup>, USA

 iveta.silova@asu.edu

## Summary

Facing the sustainability imperative, we reflect on the vast differences in responses to, and consequences of, the pandemic, focusing on high-income countries of the North Atlantic and East Asia regions. Highlighting differences in worldview, and divergences in how education is conceptualized therein, we underscore the critical role culture will play in coping with the future uncertainties unleashed by the climate crisis.

## Keywords

Climate Crisis  
Science  
Progress  
Control  
Worldview

*At a time that things are most uncertain, we turn to the most certain thing there is: Science.*

– Pfizer Advertisement, April 2020

It is Fall 2021, and mass COVID-19 vaccines rollouts are finally bringing life back to normal in many high-income countries. While much remains to be done and inequalities in access abound, is there any doubt that Science has saved us? Few thought vaccines could be developed so quickly, and with such efficacy (over 95% protection). A research programme that usually takes decades was completed in less than a year. Major pharmaceutical multinationals coordinated leading research scientists, medical professionals, academic institutions, peer review and copious public funding to produce a vaccine that some thought impossible. The Pfizer advertising campaign [Science Will Win](#), released in April 2020, was prescient:

Science can overcome diseases, create cures, and – yes – beat pandemics. It has before and it will again. Because when it is faced with a new opponent, it doesn't back down, it revs up, asking questions until it finds what it's looking for. That's the power of Science.

This same message was promoted on billboards ([here](#) and [here](#)) in some of the major epicentres of the pandemic, including New York and London. The leitmotif of these advertisements was the ingenuity of white lab coat Scientists, brain imagery and up-close pictures of the colourful DNA helix, the source of Nature's pathological secrets.

In the wake of this “[medical miracle](#)”, it is not hard to imagine that research and educational funding over the next decade will be diverted further towards Science. Science is what allows us to tame the “uncertainties” unleashed by Nature (Merchant, 2006). Well before the pandemic, education was



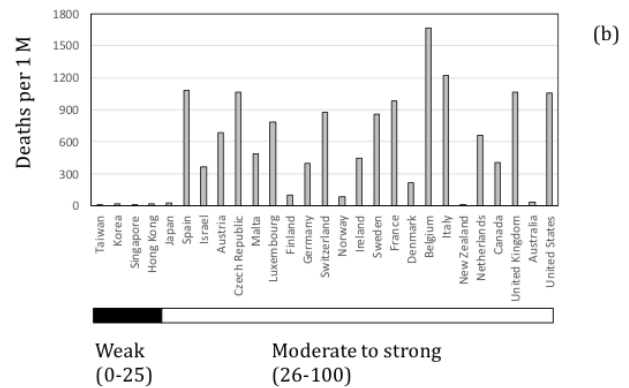
increasingly focused on STEM. But now, the raw human capital logic behind Science in education will be afforded new legitimacy. Controlling any future unforeseen “uncertainties” requires Science as an educational project. Why should it not, in the face of Science’s stunning COVID-19 vaccine victory?

Long before the pandemic, Science was being looked to as a cure for the Climate Crisis. Its list of salvation promises includes carbon capture, bioengineering, CO<sub>2</sub> fighting crops, smart cities, carbon free concrete, refreezing the Arctic, solar radiation management, ocean greening, thermo-electrochemical cooling, improving energy infrastructure and much more. Although few are aware of it, IPCC projections already take into account the optimism that new technological magic bullets like these will help slow the accelerating heating (Lawrence et al., 2018). Thus, already dark projections would be far worse, if the Scientists, who comprise the IPCC, did not include anticipated technological breakthroughs. In effect, the world is waiting for the Climate Crisis Vaccine as well. Buoyed by the optimism of the COVID-19 vaccine, is there any doubt it too will come? Isn’t the next generation of STEM graduates our best hope to avoid the climate catastrophe awaiting us on the pandemic’s backside?

Yet, join us in pausing before getting back to optimistic normality. Was this really a victory for Science? More than 700,000 Americans are dead, together with another 1,000,000 Europeans. Most live in OECD, high-income countries, which are wealthy enough – again, notwithstanding major inequalities – to afford robust medical infrastructures, intensive medical treatments, therapeutic drugs, massive public health campaigns, online living and work arrangements and enforcement of lockdowns. Yet, by December 2020 death rates per 1 million people had already exceeded 1,000 for the United States and several European countries (United Kingdom, Belgium, Italy and Spain), before medical vaccines were widely available. The United States and United Kingdom recorded among the highest death tolls (per million of population), despite purportedly having the highest levels of medical Science in the world, as proxied by the number of peer-reviewed academic articles per capita, medical patents, the highest concentration of “world class” universities, and so on.

As we argued in another NORRAG essay, this stands in contrast to East Asia, where death rates have been markedly lower: for every 1,000 American deaths (per million of population), at the end of 2020 there had been between 0.3 deaths (Taiwan) and 27 deaths (Japan). East Asian countries are also high-income, making comparisons somewhat easier, in contrast to cases such as India. Figure 1 below uses data from late December 2020 before new strains and vaccine rollouts started confounding simple comparisons (more recent data can be found here):

Figure 1. Total death per 1 million population for different countries.



Source: Redrawn from Silova et al., 2021

Viewed from East Asia, this wide gap in pre-vaccine death tolls renders the claim that “Science Will Win” hollow at best, callous at worst. The long-awaited return to “normalcy”, without serious reflection on what cultural conditions led to pre-vaccine devastation, looks irresponsible.

Undoubtedly, East Asia utilized Science too, but in a different sense. The insights of Science helped hasten behavioral changes in East Asia, but these were contributing to a pre-existing *cultural* disposition: a collective willingness to find and utilize new ways to contribute to the greater good. The most symbolic example is, of course, near universal mask wearing in East Asia. This was culturally embedded in many East Asian countries prior to the pandemic; a lesson learned from the past and passed down through Culture (Sachs, 2021). This cultural practice was prior to academic confirmation of the efficacy of face coverings, but Science was welcomed as bolstering those practices: mask wearing quickly became virtually universal across most of East Asia.

Consider the stark contrast with, say, the United States where mask wearing was culturally shunned at the outset of the pandemic (Time, 2020), then quickly politicized (Lopez, 2020). Even when gaps in infections and deaths became apparent, East Asians in the United States and the UK were being publicly harassed for wearing masks (here and here). Other contrasts between collective willingness and individual unwillingness abound: to take seriously “no travel” mandates; to submit to contact tracing; to pause holiday getaways; to trust public health officials. East Asia had, in this sense, a very different sort of vaccine from the outset: an Other-focused approach, being able to see oneself as part of a community, recognize a common fate and fulfil responsibilities, all underpinned – as cultural psychology repeatedly confirms – by an interdependent sense of being (Rappleye et al., 2020). Viewed in this way, the new medical vaccines are not a magic bullet, but at best a band-aid applied after failed cultural affordance. As opposed to “Science Will Win”, we might posit “Culture Copes” as a motto that defines the world-leading East Asian COVID-19 experience.

What creates this difference in worldview? What lies behind the highly efficacious cultural vaccine at work in East Asia? Science Will Win must be recognized as the latest iteration of a hypothesis about how the world works (Pepper, 1942), an underlying metaphysical picture that, in turn, sets the root metaphors for the majority of Western culture (Bowers, 1995). Science Will Win is the Mechanistic-Utopian worldview redux, the idea that man can stand at the vantage point outside the human-nature relationship; a worldview laser-focused on discovering Laws that determine how Nature functions and controlling Nature through those Laws (Komatsu & Rapple, 2017). Thus, Man [sic] attempts to stand where God once stood, and for many still does. This God-trick (Haraway, 1988) leads ultimately to control, wherein Progress over Nature means “uncertainties” are either controlled or eliminated, taking us one step closer to this humanistic Utopia. Even if many contemporary scientists claim to have jettisoned this medieval metaphysics in their research, the way Science is understood – and advertised publicly – is precisely this. Science is personified. It doesn’t stop until it “finds what it’s looking for”. Most significantly, it has an Opponent: that which stands in the path of Progress, obstructs “normalcy”, and prevents the further unfolding of our “humanistic” future. The Opponent to Man’s [sic] Dominion is Nature. It sounds strikingly like God’s fight with Evil, except that man’s “self”-centered Reason has replaced God. Although we must be careful to generalize, this rational-scientific-utopian outlook constitutes large swaths of institutional culture of the West. Viewed from this angle, “Science Will Win” and STEM education are iterations of an enduring cultural narrative.

What constitutes the “Culture Copes” worldview? Here too we must be careful not to generalize, but commonality perhaps emerges around the idea of a world in constant flux without Utopia. The God-Trick is simply not an option: the human-nature relationship is one of inescapable interconnection. Consequently, it is widely held that humans cannot control Nature without changing themselves. There is neither recourse to an unchanging Beyond in this world, nor a teleological advance towards a future Utopia. The human-nature relationship is inextricably embedded and co-constitutive; our only recourse to cope with what arises in Nature is working collectively. This fundamentally different Embedded-Interdependence world hypothesis transforms the notion of Culture into something like a set of practices that helps us to flourish and face unforeseen challenges.

These sorts of messages come out loud and clear in many East Asian textbooks. Japanese Social Studies textbooks for high school students place Climate Crisis as *the very first lesson*, underscoring that societies are embedded in the natural environment (Gendai Shakai, 2018). Japanese high school Ethics textbooks openly teach the non-duality of human and nature: “there is no clear line separating you and nature, we

emerge somehow from nature and we return to nature” (Rinri, 2017, p. 181). Similar messages, including an appreciation for older generations, can be found in Taiwan (Citizen and Society, 2012, p. 156) and South Korea (Sung & Kim, 2003). These are invented cultural traditions, to be sure. But this is the point: by reinventing cultural practices in each generation the underlying worldview is re-activated and carried forward. Examples of cultural affordances abound in many “modern” East Asian countries and across a range of Indigenous societies. It is an ontology (or cosmology) that does not assume that one can stand apart from Nature. Japan, South Korea, and Taiwan are all modern democratic countries and highly advanced technologically; yet, this ontology continues.

Culture here becomes a pragmatic, collective raft: one we are in together and keep afloat together; one that is inextricably part of the ever-changing sea of uncertainty on which it floats. If we do not learn to ride the waves and collectively coordinate our movements, we are lost. Within such a worldview, Other-focus and the absence of the God-trick are not deficits, but pragmatically crucial lessons passed down from the past, *primarily through cultural forms such as education*. Can we doubt East Asia’s approach when faced with the tragedy that unfolded in other high-income countries? When we consider that future COVID-19 mutations may elude medical vaccines (or require mass re-immunizations), the astronomical price of producing doses for herd immunity, and the limited time span of medical vaccine immunity, is it not worth, at least, contemplating this alternative cultural vaccine?

Returning to the implications for climate and education, the “Science Will Win” slogan has continually failed to deliver on the Climate Crisis. Despite the promised magic bullets to climate, Mechanistic-Utopian Science has continued to exacerbate the problems. The consequences of fossil fuel extraction have been recognized as an existential threat to humanity since the 1970s (Rich, 2019), but Science afforded humans the ability to search for and access oil deep in the ground, even in the oceans, and use unconventional oil as a resource. This “Win” led us to higher CO<sub>2</sub> emissions and accelerated the Climate Crisis. It is impossible to learn to live with Nature when led by Science rooted in such a worldview. Changes in Nature inevitably require changes in human cultures. The worldview behind “Science Will Win” is neither embedded environmentally nor pragmatically interdependent. But more insidiously, the “Science Will Win” salvation narrative prevents us from exploring different worldviews that may be potentially useful for learning to live with Nature, of which the Climate Crisis is the greatest and most widespread we have ever faced. In fact, it is not that the East Asian worldview should be adopted, much less that it is “right”. Our point is simply that it presents – as we have seen underscored with COVID-19 – a viable alternative that allows us to reflect on our own underlying hypotheses about how the world works. It provides an external reference

point to engage in self-reflection and inspire new possibilities. We need, more than anything, to proliferate viable approaches as the exclusions of modernity depauperate our imagination (Plumwood, 1993; Common Worlds Research Collective, 2020).

And of education? STEM's benefit from the undeniable success of the COVID-19 vaccines will merge with a flurry of OECD work that has "already" framed the pandemic as a call to improve technologically mediated (digital) learning infrastructures (OECD, 2020), a way to further embed OECD policy preferences. Hanushek and Woessmann have been invited to cost out the economic losses of COVID-19 school closures on future GDP growth (Hanushek & Woessmann for OECD, 2020). The World Bank has followed suit (Psacharopoulos et al., 2020, 2021). "Business as usual" is already reasserting itself. The Hanushek and Woessmann claims to have somehow divined the Law leading to boundless growth in our finite world is the manifestation of Mechanistic-Utopianism (Rappleye & Komatsu, 2020). No major lessons have been learned from COVID-19, nor from the empirical experience of East Asia, let alone from the divergent views of the relationship between Science and Culture still alive there (Sachs, 2021). Despite stark differences in COVID-19 outcomes and the triumph of the low-cost, equitable "Culture Copes" vaccine, there has been virtually no learning from East Asia. All of this becomes, at least for us, an ominous foretelling of what will happen to education amid the unfolding Climate Crisis. We look poised to simply double-down on Science, make Nature the opponent, and let salvation Science experts at the OECD and World Bank carry us forward.

As perhaps the fundamental contributor to Culture, Education could contribute to a viable vaccine, both for COVID-19 and the Climate Crisis, but not in its current form (Komatsu et al., 2019, 2020). Most of us, at least in the West, currently do not even look upon Education as a transmitter of Culture, a place to embed lessons learned or a raft to help the next generation navigate the uncertainties of Nature. Instead of teaching Embedded-Interdependence, we teach "individuals" the God-Trick, then call it Progress. If we view the COVID-19 pandemic as a precursor, haven't we already caught a glimpse of the future as the Climate Crisis accelerates? Is it too late to learn lessons and change course? To answer those questions, as we rush to return to "normalcy", simply pause to look beyond medical vaccines rollout rankings. Focus on something *different*: How many lessons learned from the past 18 months are being embedded in Culture?

## References

Bowers, C. (1995). *Educating for an ecologically sustainable culture*. New York: SUNY Press.

*Citizen and Society* [Gongmin Yu Shehui]. (2012). Taipei: Ministry of Education.

Common Worlds Research Collective. (2020). *Learning to become with the world: Education for future survival*. Education Research and Foresight Working Paper 28. Paris: UNESCO.

*Gendai Shakai* [Contemporary Society]. (2018). Tokyo: Shoseki.

Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575-599.

Komatsu, H., & Rappleye, J. (2017). Incongruity between scientific knowledge and ordinary perceptions of nature: An ontological perspective for forest hydrology in Japan. *Journal of Forest Research*, 22(2), 75-82.

Komatsu, H., Rappleye, J., & Silova, I. (2020). Will achieving SDG4 promote environmental sustainability? Critical Reflections Looking Towards 2030. In A. Wulff (Ed.), *Grading goal four: Tensions, threats and opportunities in the Sustainable Development Goal on quality education* (pp. 297-321). Sense Publishers/Brill.

Komatsu, H., Rappleye, J., & Silova, I. (2019). Culture and the independent self: Obstacles to environmental sustainability? *Anthropocene*, 26, 1-13.

Lawrence, M.G., Schäfer, S., Muri, H., Scott, V., Oschlies, A., Vaughan, N.E., Boucher, O., Schmidt, H., Haywood, J., & Scheffran, J. (2018). Evaluating climate geoengineering proposals in the context of the Paris Agreement temperature goals. *Nat Commun*, 9, 3734.

Merchant, C. (2006). The scientific revolution and the death of nature. *Isis*, 97, 513-533.

OECD (2020). *The Impact of COVID-19 on education: Insights from Education at a Glance*. Paris, OECD.

Pepper, S. (1942). *World hypotheses: Prolegomena to systematic philosophy and a complete survey of metaphysics*. Berkeley: University of California Press.

Plumwood, V. (1993). *Feminism and the mastery of nature*. New York/London: Routledge.

Psacharopoulos, G., Collis, V., Patrinos, H.A., & Vegas, E. (2020). *Lost wages: The COVID-19 cost of school closures*. Policy Research Working Paper No. 9246. Washington, DC: World Bank.

Psacharopoulos, G., Collins, V., Patrinos, H., & Vegas, E. (2021). The COVID-19 cost of school closures in earnings and income across the world. *Comparative Education Review*, 65(2).

Rappleye, J., & Komatsu, H. (2020). Towards (comparative) educational research for a finite future. *Comparative Education*, 56(2), 190-217.

Rappleye, J., Komatsu, H., Uchida, Y., Krys, K., & Markus, H. (2020). Better policies for better lives?: Constructive critique of the OECD's (mis)measure of student well-being. *Journal of Education Policy*, 35(2), 258-282,

Rich, N. (2019). *Losing earth: A recent history*. NY: MacMillan.

*Rinri* [Ethics]. (2018). Tokyo: Tokyo Shoseki.

Sachs, J. (2021). *Reasons for Asia-Pacific success in suppressing COVID-19*. World Happiness Report.


Silova, I., Komatsu, H., & Rappleye, J. (2021, January 14). COVID-19, climate, and culture: Facing the crisis of (neo) liberal individualism. *NORRAG*. <https://www.norrag.org/covid-19-climate-and-culture-facing-the-crisis-of-neoliberal-individualism-by-iveta-silova-hikaru-komatsu-and-jeremy-rappleye/>

Sung, K., & Kim, H.S. (2003). Elder respect among young adults: Exploration of behavioral forms in Korea. *Ageing International*, 28, 279-294.

# Complexity Theory and Education in Times of Insoluble Problems

 **Tom Pegram**, Associate Professor and Deputy Director, Global Governance Institute, Department of Political Science, University College London, UK

 t.peggram@ucl.ac.uk

 **Julia Kreienkamp**, Researcher, Global Governance Institute, Department of Political Science, University College London, UK

 j.kreienkamp@ucl.ac.uk

## Summary

COVID-19 has demonstrated the threats that systemic disruptions pose in our interconnected world. This paper explores the proposition that complexity or systems education is now vital to achieving greater levels of collective and personal resilience in the face of rapid non-linear change and potential catastrophic risks.

## Keywords

Complexity  
Risk  
Resilience  
Education  
Nature

COVID-19 is a complex problem, defying simple solutions and linear causal explanations. It shares these attributes with other urgent challenges, including climate change, ecosystem breakdown and vast inequality, all of which present inherently systemic and potentially catastrophic risks within our globalised civilisation. Such “wicked problems” (Rittel & Webber, 1973) are overwhelming the legacy assumptions, heuristics and practices of our technical-industrial social systems, including our education systems. We suggest that a shift from complicated to complex ontologies can serve as the basis for a new pedagogy rooted in an appreciation of systems-based interdependence; one which locates us all as participants “within” complex systems as opposed to external observers peering in (Senge, 2012). We argue that such a pedagogical turn is vital to ensure that future generations have the tools they need to understand and prepare for systemic risks. It is also an invitation to envision education as Bildung, focusing attention on our collective “responsibility for and participation in an evolving process of social maturation that reimagines culture, technology, institutions and policies for the greater good” (Rowson, 2019, p. 2).

Complex risks are here to stay. To borrow a phrase from the theologian Reinhold Niebuhr (1944/2011, p. 118), the students of today and decision-makers of tomorrow may have to accustom themselves to the work of “finding proximate solutions to insoluble problems.” Indeed, learning how to work with complexity, rather than against it, may well prove to be the defining story of this century.

## Complicated to complex: A shift of ontologies

Ontology is our point of departure. We cannot understand a problem without concepts and categories that allow us to give reality some basic organising structure. Our surrounding culture in the West is still based on “Mechanistic-Utopian” thinking (Rappleye et al., this issue). From this vantage, we look out onto the world and see “complicated” systems

which are closed and static, made up of components that are unable to evolve and adapt to changing conditions without external input. We assume that even the most intricate of these systems is ultimately “knowable through proper investigation, and [that] relationships between cause and effect, once discovered, repeat” (Snowden, 2005, p. 46). This leads us to hypothesise that these systems are amenable to rational scientific control and pareto-optimal, universally valid solutions. From such ontological beginnings, complicated theories are built and specific examples – a jet engine, a bureaucracy, an economy – can be examined. In terms of policymaking, “Science Will Win” becomes a compelling rallying cry (Rappleye et al., this issue).

Any such ontological position is open to question. It is important to note that ontology and the theories that follow are “merely assumptions that we can accept or reject on their explanatory power” (Lake, 2009, p. 4). We suggest that an ontological shift from complicated to complex is long overdue and central to an educational pedagogy equipped to give young people the concepts, categories and tools that they need to understand and respond to the “certainty of near-term non-linear changes” (UNDRR, 2019, p. 36). Much of what we care about consists of complex systems that are dynamic and constantly evolving, from large-scale natural ecosystems to small-scale social systems, such as schools or classrooms. Their elements act and interact in an open environment and without external input, giving rise to emergent, often surprising behaviour that cannot be explained solely in terms of the properties of individual elements. In other words, the whole is more than the sum of its parts; indeed, it is different from the sum of its parts (Jervis, 1997, p. 572).

By asserting a post-positivist philosophy of science, one where linear causality cannot be assumed, complexity theory does not reject complicated approaches but rather renders a more accurate picture of reality where the complicated and complex interact. For those inclined, complexity theory holds out the promise of syncretising holism and epistemological parsimony by allowing for ontologically diverse systems to co-exist (Kreienkamp & Pegram, 2020). Analytically, it directs our attention to determining “what works” in relation to more or less constrained or enabling contexts (Juarrero, 2000). Importantly, when it comes to problems playing out in complex biophysical systems, such as climate change or biodiversity loss, there are “no solutions in the sense of definitive and objective answers”, but pathways forward may emerge through repeat observation, experimentation and experience (Rittel & Webber, 1973, p. 155).

### **Complexity and nature**

Perhaps not so much a theory as a broadly applicable conceptual toolkit and a “way of knowing and thinking” (Morin, 2007, p. 25), complexity allows us to understand systems not simply in terms of their constituent elements,

but in terms of how they interact with each other within the whole. It directs attention to primary reality (which we might also call Nature); that all complicated systems are inevitably entangled with complex systems. For example, corporations or industrial farms are largely complicated systems, but ultimately dependent on the integrity of a complex system called the biosphere – an insight long understood and long ignored (Meadows et al., 1972). However, as this quote from a UK Treasury report indicates, the citadels of “complicated economics” are now belatedly acknowledging the hard stop presented by Nature:

Correct economic reasoning is grounded on our values...when we recognise that we are embedded in Nature. To detach nature from economic reasoning is to imply that we consider ourselves to be external to nature. The fault is not in economics; it lies in the way we have chosen to practise it (Dasgupta, 2021, p. 310).

We have now exceeded the safe limits of four out of nine planetary boundaries required to support a safe operating space for humanity (Steffen et al., 2015). Climate change is increasingly recognised as necessitating radical forms of complex governance capable of “leveraging decarbonization in an interdependent fractal system” (Bernstein & Hoffmann, 2019, p. 919). Yet, our governing structures – including education institutions – remain wedded to understanding and managing complicated problems, where reasonable probabilities can be assigned, problems can be isolated and stabilised, and solutions are predetermined. This mirage of control is seductive but in the context of Nature, myopic and even dangerous. For example, without an appreciation of the complexities involved, carbon removal techniques such as large-scale reforestation projects can actually undermine climate change mitigation efforts (Di Sacco et al., 2021).

Underlying the Dasgupta Review (2021) lies a troubling admission that our established ways of “doing” governance are increasingly redundant in the face of biosphere destabilisation. The entrained assumptions, heuristics, models and practices which pervade our ever-more complicated technical-industrial systems are not working. It is vital that young people acquire conceptual tools and mental models attuned to complex problems if we are to achieve greater levels of societal and personal resilience in the face of rapid non-linear change. A complex pedagogy places particular emphasis on enhancing human judgement in situations where no simple directions of causality are apparent, similar phenomena play out differently across time and space, and behavioural patterns are contingent and relationship-based, rather than fixed and rules-based (Pearl & Mackenzie, 2018). Education must also attend to individual ethical orientation in a world of ecological interdependence, a world where there is no “outside;” no “view from nowhere” (Cilliers, 1998).



## Education in times of insoluble problems

In light of the above, critical inquiry into entrenched paradigms of thought is vital, within teaching, learning and educational institutions. This is not to argue that every student, educator and educational researcher has to become an expert in complexity theory. Neither is it a call to reject traditional scientific methods and complicated analytical frameworks. Rather, it is to acknowledge the restricted applicability of linear styles of thinking – complicated task environments – and cultivating what Kuhn (2008, p. 186) calls “complexity habits of thought”; a greater sensitivity to the multiple interdependent characteristics of a predominantly complex reality. In other words, “[f]ormal rational thought is still taken as vital, but as one among many modes of human sense-making” (Davis & Sumara, 2005, p. 315).

In many ways, COVID-19 has been a real-life lesson in complexity, highlighting the cascading threats that systemic disruptions pose to our interconnected world. Reassuringly, complexity theory, originally confined to the natural sciences and cybernetics, is beginning to make inroads across the social sciences, arts and humanities, and has started to inform educational studies. An increasingly rich literature has shed light on the implications of complexity for learning, cognition and creative thinking (e.g., Davis et al., 2000; Bereiter, 2005; Osberg, 2015; Jacobson et al., 2016), teaching and the curriculum (e.g., Doll et al., 2005; de Greef et al., 2017; Heinrich & Kupers, 2018), efforts to promote educational change (e.g., O’Day, 2002; Peurach, 2011; Snyder, 2013; Bates, 2016), and the purpose and philosophy of education more generally (e.g., Mason, 2008; Cunningham, 2014). However, actual pedagogy in the classroom lags behind. It is rare to find curricula below university level which entertain a pluralist philosophy of science, even if the roots of complexity thinking go at least as far back as Kant’s (1781/1998) “unknown causality.”

How can we provide future generations with the tools they need to understand and prepare for future complex risks? While we cannot do justice to this vital question here, we emphasise its centrality to any pedagogy for the 21st century. The implications of complexity theory prompt us to consider a new vision of education as *Bildung*, one which not only enhances individual judgement in the face of radical uncertainty, but also encourages a process of character formation focused on preparing every young person to participate “in the creation of possible futures” (Davis & Sumara, 2009, p. 43).

The ontological proposition that we are surrounded by and, crucially, embedded in, a multitude of complex systems challenges the universal applicability of a traditional science that seeks “to fix knowledge in a permanent grid” (Cilliers, 1998, p. 118). In complex systems, “knowledge” cannot be inferred from law-like, observable regularities – it remains contextual, contested and invariably incomplete. As such, human judgement (Nowotny, 2013), experiential knowledge (Garavito-Bermúdez et al., 2013),

and intuitive forms of reasoning (Kahneman, 2011) are crucial to ensuring that knowledge is infused with meaning. In turn, complexity may preclude control, but it does not rob us of agency. Indeed, acknowledging that determinism does not rule the world opens new vistas for voluntarism in the knowledge that we have genuine choices to make. It follows that ethical questions will not be resolved through ironclad certainties. An ethos of complexity demands that each individual be equipped to exercise discernment as to the best course of action under the circumstances.

Conventional education, primarily serving to ensure the acquisition of universally applicable knowledge, will no longer suffice. Reimagining education as *Bildung* emphasises the formational role that educational institutions play in enabling young people to become “active, informed, ethical participants in shaping our collective futures” (Hetland, 2013, p. 67). As Biesta (2012) clarifies, *Bildung* discards the uncritical socialisation of individuals into existing paradigms, for a reflexive, critical and emancipatory interrogation of human relationships with each other and their natural environment. This vision challenges the “hyper-economization” of science and technology education (Bencze & Carter, 2011), as well as the sharp division between the natural sciences and other parts of the curriculum, recognising that nature is not something “out there” to be manipulated at will, but dynamically interwoven with human systems and the lived experience.

## Conclusion: Learning to live with complexity

As Rappleye et al. (this issue) highlight, science as an education project was originally conceived as a means to “tame the ‘uncertainties’ unleashed by Nature.” This narrative is failing young people, many of whom are losing faith in the ability of scientific fixes to address the gathering storm clouds of global systemic crises (Cannon, 2019). COVID-19 has served as a reminder that human health and wellbeing is critically dependent on the proper functioning of natural systems that we neither fully understand nor control. The ontological realities of our globalised civilisation compel us to learn how to live “with” complexity, rather than wishing it away or fighting to reduce and eliminate it. For education, this is a challenging, yet intriguing, proposition. Complexity thinking offers neither universal solutions nor fail-safe normative proofs for a more sustainable world. Rather, it is an invitation to explore “diverse avenues for discovering what may end up being a multiplicity of answers that are differentially sensitive to and grounded in specific circumstances, conditions, people, times, and places” (Cooksey, 2001, p. 100). In one sense, it is a call to adventure. In another, it is an opportunity for intergenerational solidarity. Education reimagined as *Bildung* may be the most important legacy that the children of the Mechanistic-Utopian worldview can bequeath to future generations who will have no choice but to grapple with the interconnected nature of their shared predicament as humans qua “earth dwellers” (Byrd, 2009, p. 107).

## References

- Bates, A. (2016). *Transforming education: Meanings, myths and complexity*. London: Routledge.
- Bencze, L., & Carter, L. (2011). Globalizing students acting for the common good. *Journal of Research in Science Teaching*, 48(6), 648-669.
- Bereiter, C. (2005). *Education and mind in the knowledge age*. New York, NY: Routledge.
- Bernstein, S., & Hoffmann, M. (2019). Climate politics, metaphors and the fractal carbon trap. *Nature Climate Change*, 9(12), 919-925.
- Biesta, G. (2012). Becoming world-wise: an educational perspective on rhetorical curriculum. *Journal of Curriculum Studies*, 44(6), 815-826.
- Byrd, S. (2009). Intelligible possession of objects of choice. In L. Denis (Ed.), *Kant's 'Metaphysics of Morals': A Critical Guide* (pp. 93-111). Cambridge: Cambridge University Press.
- Cannon, S. M. (2019, March 15). Climate strikes: Greta Thunberg calls for 'system change not climate change' – here's what that could look like. [\*The Conversation\*](#).
- Cilliers, P. (1998). *Complexity and postmodernism: Understanding complex systems*. London: Routledge.
- Cooksey, R. W. (2001). What is complexity science? A contextually grounded tapestry of systemic dynamism, paradigm diversity, theoretical eclecticism. *Emergence*, 3(1), 77-103.
- Cunningham, C. A. (2014). *Systems theory for pragmatic schooling: Toward principles of democratic education*. New York, NY: Palgrave MacMillan.
- Dasgupta, P. (2021, February). [\*The Economics of Biodiversity: The Dasgupta Review\*](#). London: HM Treasury.
- Davis, B., & Sumara, D. (2005). Challenging images of knowing: complexity science and educational research. *International Journal of Qualitative Studies in Education*, 18(3), 305-321.
- Davis, B., & Sumara, D. (2009). Complexity as a theory of education. *Transnational Curriculum Inquiry*, 5(2), 33-44.
- Davis, B., Sumara, D., & Luce-Kapler, R. (2000). *Engaging minds: Learning and teaching in a complex world*. Mahwah, NJ: Lawrence Erlbaum Associates.
- de Greef, L., Post, G., Vink, C., & Wenting, L. (2017). *Designing interdisciplinary education: A practical handbook for university teachers*. Amsterdam: Amsterdam University Press.
- Di Sacco, A., Hardwick, K. A., Blakesley, D., Brancalion, P. H. S., Breman, E., Cecilio Rebola, L., Chomba, S., Dixon, K., Elliott, S., Ruyonga, G., Shaw, K., Smith, P., Smith, R. J., & Antonelli, A. (2021). Ten golden rules for reforestation to optimize carbon sequestration, biodiversity recovery and livelihood benefits. *Global Change Biology*, 1-21.
- Doll, W. E., Fleener, M. J., St. Julien, J., & Trueit, D. (2005). *Chaos, complexity, curriculum and culture: A conversation*. New York, NY: Peter Lang.
- Garavito-Bermúdez, D., Lundholm, C., & Crona, B. (2013). Linking a conceptual framework on systems thinking with experiential knowledge. *Environmental Education Research*, 22(1), 89-110.
- Heinrich, S., & Kupers, R. (2018). Complexity as a big idea for secondary education: Evaluating a complex systems curriculum. *Systems Research and Behavioural Change*, 36(1), 100-110.
- Hetland, L. (2013). Connecting creativity to understanding. *Educational Leadership*, 70(5), 65-70.
- Jacobson, M. J., Kapur, M., & Reimann, P. (2016). Conceptualizing debates in learning and educational research: Toward a complex systems conceptual framework of learning. *Educational Psychologist*, 51(2), 210-218.
- Jervis, R. (1997). *System effects: Complexity in political and social life*. Princeton, NJ: Princeton University Press.
- Juarrero, A. (2000). *Dynamics in action: Intentional behaviour as a complex system*. Cambridge, MA: MIT Press.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.
- Kant, I. (1781/1998). *Critique of pure reason*. Ed. and trans. P. Guyer & A.W. Wood. Cambridge: Cambridge University Press.



Kreienkamp, J., & Pegram, T. (2020). Governing complexity: Design principles for the governance of complex global catastrophic risks. *International Studies Review*, *viaa074*, 1–28.

Kuhn, L. (2008). Complexity and educational research: A critical reflection. In M. Mason (Ed.), *Complexity theory and the philosophy of education* (pp. 169-180). Oxford: Wiley-Blackwell.

Lake, D. A. (2009). *Hierarchy in international relations*. Ithaca, NY: Cornell University Press.

Mason, M. (Ed.). (2008). *Complexity theory and the philosophy of education*. Oxford: Wiley-Blackwell.

Meadows, D. H., Meadows, D. L., Randers, J., & Behrens III, W. W. (1972). *The limits to growth*. New York, NY: Universe Books.

Morin, E. (2007). Restricted complexity, general complexity. In C. Gershenson, D. Aerts & B. Edmonds (Eds.), *Worldviews, science and us* (pp. 5–29). Singapore: World Scientific Publishing.

Niebuhr, R. (1944/2011). *The children of light and the children of darkness. A vindication of democracy and a critique of its traditional defense*. Chicago, IL: University of Chicago Press.

Nowotny, H. (2013, October 10). The embarrassment of complexity. *Harvard Business Review*.

O'Day, J. A. (2002). Complexity, accountability, and school improvement. *Harvard Educational Review*, *72*(3), 293-329.

Osberg, D. (2015). Learning, complexity and emergent (irreversible) change. In D. Scott & E. Hargreaves (Eds.), *The SAGE handbook of learning* (pp. 23–40). London: SAGE Publications.

Pearl, J., & Mackenzie, D. (2018). *The book of why. The new science of cause and effect*. New York, NY: Basic Books.

Peurach, D. (2011). *Seeing complexity in public education: Problems, possibilities, and success for all*. New York, NY: Oxford University Press.

Rittel, H.W.J., & Webber, M.M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, *4*(2), 155-169.

Rowson, J. (2019). *Bildung in the 21st Century – Why sustainable prosperity depends upon reimagining education*. Centre for the Understanding of Sustainable Prosperity (CUSP).

Senge, P. N. (2012). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. Nicholas Brealey Publishing.

Snowden, D. J. (2005). Multi-ontology sense making: A new simplicity in decision making. *Informatics in Primary Care*, *13*(1), 45–53.

Snyder, S. (2013). *The simple, the complicated, and the complex: Educational reform through the lens of complexity theory*. OECD Educational Working Papers, 96. Paris: OECD Publishing.

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223), 736–747.

UNDRR (2019). *Global assessment report on disaster risk reduction 2019*. United Nations Office for Disaster Risk Reduction.

# Relinquishing Management: Implications of the Pandemic for the Climate Crisis

 **Angela Molloy Murphy**, Lecturer in Early Childhood Education, Melbourne Graduate School of Education, Australia

 [angela.molloymurphy@unimelb.edu.au](mailto:angela.molloymurphy@unimelb.edu.au)

## Summary

The global pandemic has shone a spotlight on entwined social, economic, and planetary crises. This essay considers the call for education for sustainability to shift from relations of mastery and management to reciprocal relations of care.

## Keywords

Environmental Education  
Earthly Relations  
Climate Crisis  
Pandemic

The global pandemic, in addition to shining a spotlight on entwined social, economic, and planetary crises, has caused a massive disruption to education systems throughout the world. This essay distinguishes two perspectives in response to these crises.

The first is that of the educators, policymakers and stakeholders who are concerned with how to maintain the status quo in education with/in shifting and precarious scenarios and return to “business as usual” as quickly as possible (Rappleye et al., this issue). This perspective can be characterized by the presumption that education itself, in neither form nor content, is implicated in the current situation. In this view, existing education conventions are a solid and trustworthy ship in the choppy waters of our global predicament, and the pandemic is a glacier; a massive, unrelated obstacle in the path of education’s Progress towards a humanistic utopia. This view entails that those invested in education are charged with the task of navigating the ship through rough waters, steering clear of the obstacle so the vessel remains intact to continue confidently on course.

An alternate view of the current global predicament is that the pandemic has made visible the entanglement of social, economic, and planetary crises, creating an opening for a critical reconceptualization of education. Thus, the pandemic – produced in and with the waters of social and planetary turmoil – calls education itself into question. This position acknowledges that our humanist ways of thinking and doing created conditions for the pandemic, the climate crisis and widespread social, racial, and economic injustice, and recognizes these habitual toxic ways of thinking and doing are disseminated through education. As the designated discipline for teaching and learning about nature, environmental education is directly implicated in this process. Lastly, this perspective necessitates a collective grappling with how we can teach, learn, and live otherwise than the ways which have brought us to the point of collapse. Environmental education offers a space for this collective grappling and transformation.

## Management as a colonizing force

Currently, the earth's human inhabitants are locked in a cycle of engagement with the world as a resource to extract, produce, consume, dispose, and rescue at will (Molloy Murphy, 2020a). These colonizing ways of acting upon, rather than with, our earthly relations have brought human civilizations to the threshold of the sixth mass extinction (Steffen, 2019). The effects of these human ways of doing and being are made evident in planetary degradation, multispecies extinction, and anthropogenic climate change. Although the complete picture is still emerging, the current global pandemic is part of this deadly assemblage, proliferating under the conditions of human supremacy and predatory capitalism.

Historically, environmental education has addressed environmental crises by teaching management approaches, such as recycling, restoration, conservation, and other forms of human stewardship (Taylor, 2017). The origins of these management approaches can be found in the North American field guides of the 18th and 19th centuries, where relationships with nature were expressed through extraction and consumption. These often involve the identification of plant and animal specimens from “nature” for scientific examination and classification. Arboretums and zoos exemplify management approaches to nature; seeking to manage and curate the natural world for scientific understanding and human appeal. Neo-colonial projects such as these often disregard and delegitimize the situated ecologies of plants and animals, and the ecological knowledges of Indigenous peoples who have lived in relationship with this land and its beings for centuries.

Representative of this thinking is the environmental education staple, *50 Simple Things Kids Can Do to Save The Earth* (Silverstein, 1990), This book, re-released in 2006 has inspired countless environmental education initiatives. Children are taught small ways to offset global warming through recycling, planting trees, feeding birds, turning the lights out, and so on. These management approaches and corresponding education initiatives, policies and programs are insufficient in the face of the climate crisis. Regardless of how many trees we plant, global warming will continue for at least several more decades, if not centuries (NASA, 2019).

Environmental management approaches are comparable to boiling water out of a sinking ship. They may temporarily improve immediate material conditions but will not save the ship. Management approaches can serve as a technology of neoliberal governmentality eschewing considerations of relatedness, reciprocity and entangled interdependence with the land and the more-than-human.

Our ways of approaching the pandemic as an event have required some degree of management to prevent mass human

extinction. However, without acknowledging the ways of acting upon the natural world that gave rise to the pandemic and the climate crisis – such as deforestation, habitat loss and factory farming – we are condemned to continue producing existential threats while managing the current threat of COVID. Visions of salvation from the pandemic and the climate crisis through heroic management efforts, whether they be “magic bullet” vaccines (Rappleye et al., this issue) or miracle techno-fix solutions, are ill-conceived and doomed to fail as they perpetuate the status quo.

Aside from being unsuccessful in the long term, management approaches rely on human mastery and progress as the solution to the imminent extinction of planetary life. Conventional environmental education is premised upon an understanding of children as citizens of the future who hold the potential to redeem the human species through planetary repair. Positioning humans, either now or in the future, as the sole protagonists in the story of the planet reinforces colonizing relations with nature and looks away from the entangled ethical complexities of our multispecies coexistence. Indigenous leaders have warned against colonizing relations with nature, repeatedly calling for a global shift towards caring and recuperative ways of mattering with our earthly relations.

The entangled nature of, and responsibility to, all earthly things is central to Indigenous knowledges (Tuck & McKenzie, 2015; Davis & Todd, 2017; Nxumalo & Cedillo, 2017). Indigenous peoples have lived by this ethos for millennia. Rachel Carson (1962) and John Muir (1979) echoed this idea, speaking of interdependence in the natural world. But environmental education has remained locked into humanist narratives regarding management and rescue of land, water, and animals. The care that is conjured in conventional environmental education is subsumed in management approaches, reinforcing notions of human superiority and separateness from the natural world.

## Relinquishing management

After centuries of routinely applying managerial logics to the natural world (Berry et al., 2020), a disruption is required for humans to conceptualize new ways of being, doing and thinking “with” our earthly relations. The convergence of the climate emergency and the global pandemic may be viewed as this kind of devastating disruption. Perhaps through this we can finally relinquish notions of managing life and instead enact recuperative and reciprocal practices with humans, nonhumans, and land. This requires a shift from habitual humanist approaches of “learning about the world in order to act upon it” to “learning to become with the world” (Common Worlds Research Collective, 2020, p. 2). It is now time for environmental education to break from customary mastery and management approaches to enact reciprocal relations

of care (Puig de la Bellacasa, 2017) that attend to humans' embedded interdependence (Rappleye et al., this issue) with/ in the world; a care "for the relations themselves" (Kimmerer, 2017). "Our future survival depends on our capacity to make this shift" (Common Worlds Research Collective, 2020, p. 3), which is imperative despite uncertain consequences and precarious futures (Molloy Murphy, 2020b).

## References

- Berry, A., Delgado Vintimilla, C., & Pacini-Ketchabaw, V. (2020). Interrupting purity in Andean Early Childhood Education: Documenting the impurities of a river. *Equity & Excellence in Education*, 1–12.
- Carson, R. (1962). *Silent Spring*. Boston: Houghton Mifflin.
- Common Worlds Research Collective. (2020). *Learning to become with the world: Education for future survival*. UNESCO's Futures of Education paper.
- Davis, H., & Todd, Z. (2017). On the importance of a date, or, decolonizing the Anthropocene. *ACME: An International Journal for Critical Geographies* 16(4), 761–80.
- Kimmerer, R. W. (2017). Learning the grammar of animacy 1. *Anthropology of Consciousness*, 28(2), 128–134.
- Molloy Murphy, A. (2020a). *Plastic city: A small-scale experiment for disrupting normative borders*. 4(1), 14.
- Molloy Murphy, A. (2020b). No happy endings: Practicing care in troubled times. *Journal of Childhood Studies*, 45(2), 7–13.
- Muir, J. (1979). *John of the mountains: The unpublished journals of John Muir*. University of Wisconsin Press.
- National Aeronautics and Space Administration (NASA). (2019). *Is it too late to prevent climate change?*
- Nxumalo, F., & Cedillo, S. (2017). Decolonizing place in early childhood studies: Thinking with Indigenous onto-epistemologies and Black feminist geographies. *Global Studies of Childhood*, 7(2), 99–112.
- Puig de la Bellacasa, M. (2017). *Matters of care: Speculative ethics in more than human worlds*. University of Minnesota Press.
- Silverstein, M. (1990). Nonfiction -- 50 Simple Things Kids Can Do to Save the Earth by the Earthworks Group and illustrated by Michele Montez. *School Library Journal*, 36(9), 240.
- Steffen, W. (2019). The Anthropocene: Where on Earth are we going? *The Ecological Citizen* 2, 129–30.
- Taylor, A. (2017). Beyond stewardship: Common world pedagogies for the Anthropocene. *Environmental Education Research*, 23(10), 1448–1461.
- Tuck, E., & McKenzie, M. (2015). *Place in research: Theory, methodology, and methods*. New York: Routledge.

# Fostering cultural emergence in a climate emergency: permaculture, education and gender climate justice

 Georgina-Kate Adams, Founding director, The Seed, Africa, UK

 georgina-kate@theseedafrica.com

## Summary

This article considers the potential of permaculture for redesigning education, building on what has been learnt from the COVID-19 crisis. Drawing on experiences in a school in Eswatini, it highlights the importance of designing for gender climate justice.

## Keywords

Education  
Permaculture  
Climate Change  
Gender  
Resilience

Rappleye, et al. (this issue) suggest that the best “vaccine” for COVID-19 is not a scientific vaccine at all, but a culture of collective responsibility and embedded interdependence, as seen in East Asia. They consider the assertion that “culture copes” provides a strategy for climate resilience – arguing that the performance of East Asia compared to Europe and the United States during the COVID-19 pandemic may foretell how these regions will fare in the context of the climate emergency.

Rappleye, et al. (this issue) suggest some specific characteristics of a culture that “copes”. These can be summarised as: respect for nature and other humans (including the knowledge of elders); feeling interconnected with nature and other humans; cooperation with nature and other humans; self-reliance; resilience; creativity; and adaptability. They further state that education is a principal transmitter of culture. Thus, education has a central role to play in a region’s climate resilience. This begs a question: In contexts that lack these cultural characteristics, could education help to foster the emergence of a new culture?

The idea of “cultural emergence” is that we can “make the cultural shifts necessary to bring us into a more caring, connected society”: building personal and collective resilience (Macnamara, 2021). The notion of cultural emergence evolved from “permaculture”: a radical ecological interdisciplinary earth science that can be utilised to design any sphere of life, from agricultural to social systems (Pilgrim & Davis, 2015; Alderslowe et al., 2018). Co-originated by Bill Mollison and David Holmgren in Australia in the 1970s, permaculture has grown into a global movement (Macnamara, 2019).

Permaculture fosters understanding of the interconnectedness of all life and provides a toolset for designing sustainable ways of living, which balance the needs of humans with those of the rest of the living world (permaculture.co.uk, n.d.). The central pillars of permaculture

are the ethics of: Earth care, people care and fair shares. These are supported by 12 core design principles, and a range of design tools (Alderslowe et al., 2018). To date, permaculture's design tools have predominantly been applied to agricultural settings, with reported benefits including increased environmental resilience and improved human health (Didarali & Gambiza, 2019). However, in 2018, the Children in Permaculture manual, Earth Care, People Care and Fair Share in Education, was published, exploring some of the ways that permaculture can be applied to pedagogy and curriculum (Alderslowe et al., 2018).

Permaculture appears to provide a toolset for education in an era of climate crisis. Indeed, in Timor Leste, permaculture and school gardens have been part of the formal education system since 2013 – taught in primary schools from Grade one to six (Stodulka, 2020), to help to improve food sovereignty, health and nutrition (Lemos, 2016). Doing permaculture with children “supports them in developing a cooperative, mutually prosperous culture” (Alderslowe et al., 2018, p. 10). Now, there is an emerging sub-movement advocating the potential of permaculture tools to go a step further: to design not just curriculum interventions, but whole education systems (Alderslowe et al., 2018).

### **Eswatini and permaculture-designed education**

The application of permaculture to the design of education is still in the earliest stages of development. However, in Eswatini's Manzini region is a pioneering pre-school, Guba Farm Playschool, entirely designed using permaculture design tools and principles (Adams, 2020). This provides a site to examine the potential of these ideas. Established in 2015, Guba Farm Playschool is run by Guba: a charity co-founded by Emma Granville and Sam Hodgson. Guba runs a permaculture training centre for adults in the same community.

The school currently has 23 students and 43 alumni. Inspired by permaculture's “fair shares” ethic, it uses a five-tier sliding-scale fee system. Students in fee tiers 1-4 pay reduced rates, according to their household income. This makes the school accessible to a wide range of children and ensures that students learn to understand, cooperate with and care for people from different economic, cultural and racial backgrounds, as one interconnected community (Adams, 2020). As such, the school offers a demonstration of how permaculture design tools could be utilised in education to help form a more resilient, interdependent culture.

The school certainly operates in a context where improved resilience is urgently needed. Even before the COVID-19 pandemic, Eswatini was a nation juggling multiple crises. These include significant environmental degradation, water shortages and food insecurity; endemic gender inequity; and the highest prevalence of HIV/AIDS worldwide (Remmelzwaal,

2006; Nyawo, 2014; Horter et al., 2019). For over 20 years, Eswatini has been feeling the impacts of climate change, with increasingly unpredictable rain patterns and frequent droughts drastically affecting agricultural production, food security and GDP (Gamedze, 2006; UNFAO, 2014). As the climate warms, droughts are anticipated to increase and worsen, and up to 78% of Eswatini's land has been warned to be at risk of desertification (Remmelzwaal, 2006; Stringer et al., 2007). Currently, the Swati government's efforts to improve environmental resilience through education focus on attempting to support students into the dwindling agricultural workforce (Kibirige et al., 2017). Yet, the government has paid little attention to how cultural conditions that are reinforced by education, such as gender inequity, negatively impact resilience.

### **Gender inequity as a cultural barrier to resilience**

In Eswatini, and worldwide, issues of gender inequity have been highly problematic during the COVID-19 pandemic. Women have disproportionately carried the weight of childcare during school closures – negatively impacting their careers and mental health (Sevilla & Smith, 2020; Zamorro & Prados, 2021). In a number of countries, an increased risk of gender-based violence, sexual exploitation, early marriage and pregnancy have been noted (Philpote, 2020). Many schoolgirls have also faced increased caring or housework responsibilities, due to the loss or sickness of caregivers – reducing their time available for schooling. Consequently, many girls are anticipated to fall behind male peers or drop out of education entirely (Burzynska & Contreras, 2020).

Similarly, many girls' futures are also seriously threatened by climate change – with climatic disasters, such as droughts, increasing school dropout for girls in many countries (Chigwanda, 2016). According to the United Nations, the devastating effects of climate change hit women and girls hardest – and a root cause is gender inequity (Engelman, 2009). Indeed, exposure to gender-based violence has been suggested to weaken household and community cohesion, undermining climate change resilience at large (Kamara et al., 2020). Thus, reducing gendered divisions appears a crucial goal for education in a time of climate crisis. Yet currently many Swati schools are reinforcing gender inequities, either explicitly or implicitly.

My 2020 research in Eswatini explored what actions would be necessary for education to improve gender equity and foster gender justice in the context of climate crisis (Adams, 2020). I coined the term “gender climate justice” to highlight my particular focus on gendered issues of climate justice. This term denotes the goal of fostering a future in which the sex or gender identity of a person plays no role in determining their vulnerability (or resilience) to the impacts of climate change or climate adaptation processes (Adams, 2020).

What emerged from the study was the importance of a holistic approach, as advocated by permaculture. Three key areas were revealed as requiring particular consideration if education is to deliver gender climate justice. These are: school infrastructure and its role in reducing students' vulnerabilities; local connection with students' communities and home realities; and gender roles and leadership – highlighting the importance of educators as role models for gender equity. The latter invited critique of the permaculture movement itself, as a lack of gender and racial diversity in its leadership has historically affected its role modelling (Olson-Ramanujan, 2014). In considering the viability of permaculture design tools for supporting cultural emergence through education then, we must also consider permaculture's ability to foster gender equitable outcomes. It should thus be noted that many permaculture actors are making a conscious effort to elevate issues of equity and inclusivity within the permaculture movement (Permies for Equity, 2014).

My research with Guba Farm Playschool (Adams, 2020) found that the school made a conscious effort to promote positive gender role modelling and relations, through using a permaculture-led approach. Translating the permaculture design principle “integrate don't segregate” (Holmgren, 2011) into practice, Guba Farm Playschool's teachers consciously modelled equity and interdependence to students – such as by equally dividing all staff labour, right down to toilet cleaning. The school's administrators maintained a strict 50:50 gender balance in student enrolment. Furthermore, teachers actively challenged students' gendered ideas, roles and interests – inviting girls and boys to play with toys that are atypical for their gender and encouraging analysis of where their gendered ideas come from. Teachers also practised and modelled consent with students at every opportunity, to normalise healthy gender relations.

Permaculture advocates whole system design. This encourages consideration of how each component of a school links to the next and how needs can be met with the resources available within that system (Flores & Shepherd, 2019). As such, Guba Farm Playschool applied permaculture principles to everything from the school's physical infrastructure, curriculum and accounting system, to how staff meetings ran, and how interactions took place with parents and students. Consequently, efforts to improve gender relations included challenging teachers' and parents' beliefs about gender.

This whole-system design approach is seen as crucial for instilling in children the tools and attitudes to be self-reliant and resilient. By creating an environment of interconnectedness, students can see how they can find solutions to problems themselves, or with their community, using simple, local, renewable resources. At Guba Farm

Playschool, learning occurred in and with the local environment, to help students to appreciate the abundant resources around them and how to work with nature respectfully and cooperatively. This included incorporating local, Indigenous knowledge of elders – inviting them into the school to teach specialist sessions.

So, what does the practice at Guba Farm Playschool tell us about the application of permaculture to education and its potential for helping more resilient cultures to emerge? Firstly, the school's example highlights the importance of a joined-up, whole system approach.

Secondly, the school illustrates how, by designing an education system using permaculture principles as a guide, underlying issues that undermine resilience (such as gender inequity) rise to the forefront. Indeed, what the COVID-19 pandemic has taught us – which is also true for the climate crisis – is that educators must understand how gender inequity exacerbates vulnerability in times of crisis, and actively work to address this by fostering healthier cultural norms about gender.

Finally, while students' resilience is likely to be buoyed by teaching “about” permaculture in the curriculum (and providing opportunities to apply this), this may not be essential to foster positive cultural change. Guba Farm Playschool has, instead, used permaculture to design a school environment which provides students with a demonstration of what a more connected, caring, sustainable and resilient culture looks like – helping to make this the norm for the younger generation.

Guba Farm Playschool has formed a school community with a strong sense of collective identity and, as such, a culture similar to that described in East Asia (Rappleye et al., this issue). If culture is indeed the best “vaccine” then, further exploring permaculture's potential to foster cultural emergence through education seems a good place to start.



## References

- Adams, G-K. (2020). *Environmental education and gender climate justice: A study of a permaculture-inspired school in peri-urban Eswatini*. [Unpublished Masters dissertation]. UCL Institute of Education.
- Alderslowe, L., Amus, G., & Devapriya, D. (2018). *Earth care, people care and fair share in education: The children in permaculture manual*. Children in Permaculture.
- Burzynska, K., & Contreras, G. (2020). Gendered effects of school closures during the COVID-19 pandemic. *Lancet*, 395(10168), 10-1016.
- Chigwanda, E. (2016). *A framework for building resilience to climate change through girls' education programming*. Center for Universal Education at Brookings.
- Didarali, Z., & Gambiza, J. (2019). Permaculture: Challenges and benefits in improving rural livelihoods in South Africa and Zimbabwe. *Sustainability*, 11(8), 2219.
- Engelman, R. (2009). The state of world population 2009. Facing a changing world: Women, population and climate. In *The state of world population 2009. Facing a changing world: Women, population and climate*, 104-104.
- Flores, H. J., & Shepherd, K. (2019) *Whole systems design: How to live more sustainably*. <https://www.freepermaculture.com/whole-systems-design/>.
- Gamedze, M. (2006). Climate change vulnerability and adaptation assessments in Swaziland. Accra: UNFCCC African Regional Workshop on Adaptation.
- Holmgren, D. (2011). *Principles & pathways beyond sustainability*. Hesperian, East Meon, UK: Permanent Publications.
- Horter, S., Wringe, A., Thabede, Z., Dlamini, V., Kerschberger, B., Pasipamire, M., Lukhele, N., Rusch B., & Seeley, J. (2019). "Is it making any difference?" A qualitative study examining the treatment-taking experiences of asymptomatic people living with HIV in the context of Treat-all in Eswatini. *Journal of the International AIDS Society*, 22(1), e25220.
- Kamara, J., Sahle, B., Agho, K., & Renzaho, A. (2020). Governments' policy response to drought in Eswatini and Lesotho: A systematic review of the characteristics, comprehensiveness, and quality of existing policies to improve community resilience to drought hazards. *Discrete Dynamics in Nature and Society (DDNS)*, 2020.
- Kibirige, D., Singh, A. S., & Zvenyika, K. R. (2017). Perceptions of Swaziland's youth towards farming: A case of Manzini region. *Forestry Research and Engineering: International Journal*, 1(3), 1-8.
- Lemos, E. (2016). *Permaculture/Agroecology system in Timor-Leste National School Curriculum for Basic Education*. <http://www.fao.org/3/bl923e/bl923e.pdf>
- Macnamara, L. (2019). *People & permaculture: Designing personal, collective and planetary well-being*. East Meon: Permanent Publications.
- Macnamara, L. (2021). *Origins of cultural emergence*.
- Nyawo, S. (2014). 'Sowungumuntfukenyalo'-' You are now a real person': A feminist analysis of how women's identities and personhood are constructed by societal perceptions on fertility in the Swazi patriarchal family. Pietermaritzburg: Doctoral dissertation, University of KwaZulu-Natal.
- Olson-Ramanujan, K. (2014). *A "pattern language" for women in permaculture*. Permaculture Research Institute. [Permaculture.co.uk](http://Permaculture.co.uk). (n.d.). *What is permaculture?*
- Permies for Equity. (2014). *Permies for equity: Exploring regenerative social patterns*.
- Philpote, A. (2020). *Child marriage in COVID-19 contexts: Disruptions, alternative approaches and building programme resilience*. UNFPA and UNICEF.
- Pilgrim, K., & Davis, H. (2015). 'More crucial' matters: Reclaiming 'sustainability' and transcending the rhetoric of 'choice' through Ecofeminist pedagogy. *Ethics & the Environment*, 20(1), 123-139.
- Rommelzwaal, A. (2006). *Swaziland – Country Environment Profile (Draft Report)*. Commission of the European Communities.
- Sevilla, A., & Smith, S. (2020). Baby steps: the gender division of childcare during the COVID-19 pandemic. *Oxford Review of Economic Policy*, 36(Supplement\_1), S169-S186.
- Stodulka, T. (2020). Worlding permaculture school gardens: Translocal connectivities and minor utopias in Timor Leste. *American Behavioral Scientist*, 64(10), 1512-1525.



Stringer, L., Twyman, C., & Thomas, D. (2007). Combating land degradation through participatory means: the case of Swaziland. *AMBIO: A Journal of the Human Environment*, 36(5), 387-393.

UNFAO. (2014). *Food and Agricultural Organisation of the United Nations: Swaziland looks to a revitalized agriculture sector.*

Zamarro, G., & Prados, M. J. (2021). Gender differences in couples' division of childcare, work and mental health during COVID-19. *Review of Economics of the Household*, 19(1), 11-40.

# Intertwined States of Emergency: Education in the Time of COVID-19 and the Climate Crisis

 **Marcia McKenzie**, Professor, Melbourne Graduate School of Education, University of Melbourne, Australia & University of Saskatchewan, Canada

 marcia.mckenzie@unimelb.edu.au

 **Christina Kwauk**, Non-Resident Fellow, Brookings Institution, USA

 christina.kwauk@gmail.com

## Summary

The article highlights how the COVID-19 emergency is, in part, a symptom of the larger climate emergency, and is a further warning of the urgent need to accelerate climate action. Education is key to tackling the affective, social and behavioural barriers to climate action. This article shares pedagogical and policy approaches that can help shift cultural orientations to redress these intertwined emergencies.

## Keywords

Climate Change  
COVID  
Emergency  
Education Policy  
Environmental Education

The climate emergency, it turns out, is a driver for a “new era of pandemics” ([Goodell, 2020, np](#)). As temperatures shift across the globe, the resulting “wild exodus” of species’ migration combined with human destruction of wildlife habitats, is thought to be a key contributor to new interactions between species, and thus the evolution of new vector-borne and zoonotic diseases ([Mills et al., 2010](#); [Shah, 2020](#); [Beyer et al., 2021](#)). U.S. Chief Medical Advisor Anthony Fauci has warned, “The way we are now interacting on our planet with the environment...will have a great effect on vector-borne diseases” (Goodell, 2020, np). Unfortunately, future pandemics may also be less forgiving in terms of mortality rates (Ryan in [Trocaire, 2021](#)). The COVID-19 emergency, while debilitating and laying bare geographic and social inequalities (as earlier sections of the NORRAG Special Issue make clear) is also a new form of wake-up call to the even more perilous future emergencies to be faced if more rapid and ambitious climate action is not taken by countries and communities.

Yet, catalysing such bold and urgent climate action will be tough for two reasons: an overreliance on technical solutions; and an aptness to viewing our present public health and climate emergencies as separate and unrelated. Responding to these twin challenges will require new ways of thinking, as well as new ways of doing and being in the world. Rappleye et al. (this issue), for example, outline how the West (and North) continue to rely on, and perhaps have renewed confidence in, science and human ingenuity as the solutions for global problems created through individualistic and capitalist orientations to progress. They propose, instead, looking to worldviews, including those from East Asia, that centre interconnectedness and interdependency – both between humans and the natural world, and among humans in our collective work to face challenges and flourish.

While we support this critical focus on cultural shifts toward more collectively- and sustainability-oriented worldviews, we want to emphasise that we are not advocating critique of Science or STEM education per se, but of the overreliance on technological innovation and technical solutions – a “Science Will Win” attitude (Rappleye et al., this issue) – to solve what are, at heart, complex challenges that require shifts in values, beliefs, relationships and worldviews. The past decades have been mired by political polarisation, anti-Science and “post-truth” orientations – attributable in part to social media algorithms that foster [ideological echo-chambers](#). Such an affective and ideological landscape has functioned to stymie action supported by scientific consensus, including on issues of climate and COVID-19 ([Boler & Davies, 2021](#)). In this context, it would be an upside if people came to rely more on science because of our current pandemic-related scientific breakthroughs. Nevertheless, science should not be approached as the only remedy – least of all an infallible remedy – to the underlying unsustainable worldviews that put profit before people and the planet.

Alongside the role of science and technological innovation in a too often “post-truth” world, we have also noted assumptions within [intergovernmental agencies](#), across [popular media](#) and in education circles that the COVID-19 and climate emergencies are unrelated, or even that they are in conflict – in that the pandemic is drawing attention and resources away from addressing climate change. Such disconnected thinking blinds us to the fact that we are not playing a zero-sum game. Rather, COVID-19 is yet another sign that we are approaching planetary limits with an increasingly narrow window to correct our course. Mike Ryan, Executive Director of the World Health Organization’s Emergencies Programme, responsible for the organization’s COVID-19 response, made this point passionately and eloquently:

We are pushing nature to its limit. We are pushing population to its limit. We’re pushing communities to their limits. We’re stressing the environment. We are creating the conditions in which epidemics flourish. We’re forcing and pushing people to migrate away from their homes because of climate stress. We’re doing so much and we’re doing it in the name of globalisation and some sense of chasing that wonderful thing that people call economic growth. In my view, that’s becoming a malignancy, not growth, because what it’s doing is driving unsustainable practices in terms of how we manage communities, how we manage development, how we manage prosperity. We are writing cheques that we cannot cash as a civilisation and they’re going to bounce. ([Trocaire, 2021](#))

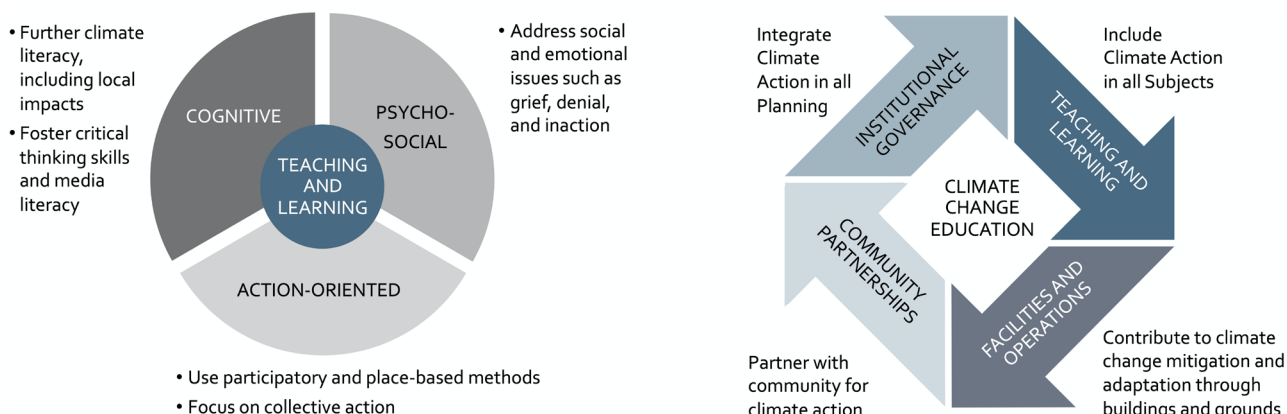
To address these interlinked crises, more of humanity must understand that (1) the causes of the pandemic – and future pandemics – are environmental, including due to human-

induced climate change; and (2) that the causes of climate change and other environmental (and social) issues are in large part a result of dominant cultural propensities for economic and individualistic advantage, regardless of human and planetary costs.

This is where education comes in. The proposed “role of education in addressing environmental issues” is not new, but something that educators, environmentalists, Indigenous communities, youth and more, have worked on for many decades. Education and environment scholars, such as [Daniel Wildcat](#), [Heesoon Bai](#), [Lucie Sauvé](#), [Rishma Dunlop](#), [Chet Bowers](#), and [others](#), have emphasised the centrality of worldview and culture in education to redress destructive relationships with the planet and other species. What Rappleye et al. (this issue) call “cultural shifts” is essentially a call for (Western) education to extend beyond its dominant cognitive exercise – steeped in Cartesian duality – to include interwoven psychosocial and action-oriented dimensions of learning that highlight the interconnection and interdependence between things (Figure 1), rather than their separation and compartmentalisation. Such breadth and integration can help to expand worldviews with real consequences for how we live together and with nature. This requires innovation in pedagogy that emphasises the importance of practical experience, situatedness in place and networks of relationships to enable critical learning and social change ([McKenzie, 2009](#); [Tuck, McKenzie & McCoy, 2014](#); [McKenzie & Bieler, 2016](#); [Ellsworth, 2005](#); [Gaztambide-Fernández, 2012](#)). In a time of intertwined emergencies like COVID-19 and the climate crisis, there is an increasingly urgent need for a radical shift in how we do education, to restore human systems in balance with planetary boundaries.

This is furthered in [recent thinking](#) on “climate change pedagogy” specifically, which draws attention to social and participatory forms of action pedagogy, addressing the affective or psychosocial dimensions of climate change (Figure 1), including societal polarisation, ideology, indifference and denial, anxiety and grief ([Lertzman, 2015](#); [Jesuit & Williams, 2018](#); [Hoggett, 2019](#); [Kwauk, 2020](#); [Hargis & McKenzie, 2020](#); [Kwauk & Casey, 2021](#)). Such advances in climate change education respond to a key finding from research in environmental education: that simply more knowledge of the science, in this case climate science, does not guarantee individual or societal action (e.g., [Kollmus & Agyreman, 2010](#)). These insights also reaffirm that we cannot rely on science alone to save us. We must actively change how we communicate and educate on climate change; change how we think about ourselves (and our social and economic systems) and how we act in our societies and in relation to the planet.

Figures 1 & 2. Climate change education for social change: An integrated and whole-institution approach



Source: Adapted from [Hargis & McKenzie, 2021](#)

In addition to pedagogical strategies that elicit worldview expansion and cultural change, supportive “education policy environments” are also essential. This is especially the case for enabling an integrated and whole institution approach to climate change education that can advance social, cultural and structural change – from involving students and teachers in the classroom, advancing the sustainability of education facilities, partnering with communities on meaningful action, and prioritising climate-based decision-making in overall institutional governance (Figure 2). Explicit climate change or sustainability policy at “each” level of K-12 education policy-making (e.g., national, state, school district, school) has also [been found](#) to be key in strengthening professional development and support for administrators and teachers to include climate and sustainability education in schools. At the higher education level, too often climate and sustainability action has remained in the domain of campus operations, such as through emission reductions, versus also guiding decisions on priority research centres and funding, academic programmes or overall financial operations ([Henderson et al., 2017](#); [McCowan, 2020](#)).

In addition to an enabling education policy environment, “climate policy” must also provide necessary scaffolding for cultural change. Unfortunately, climate policy to date has largely overlooked the key role of education in enabling the social and political will for collective action. Increasingly, climate change communication and education are being identified as key to include in countries’ Nationally Determined Contributions (NDCs) and climate action under the Paris Agreement ([UNESCO, 2020](#); [McKenzie, 2021](#)). But if trends remain the same, technological innovation and an overreliance on science in climate policy suggest that little attention and few resources will go toward ensuring quality climate change communication and education are delivered at the scale needed for collective shifts in worldviews. In response, a new global partnership, the [Monitoring and Evaluating Climate Communication and Education](#)

([MECCE Project](#)), aims to support climate negotiators and decisionmakers to increase the quality and quantity of climate change communication and education globally. Through research-informed recommendations, tools, and strategies for policymakers, the project aims to help strengthen the implementation of holistic and whole-institution approaches to climate change education for social change.

As fires, floods, hurricanes, heat waves, polar vortices and other human-induced climate events have increasingly disastrous impacts on individuals and communities around the world, we now unfortunately must add climate change’s contribution to “rewriting disease algorithms on the planet” ([Goodell, 2020](#)). As schools and universities reopen for on-site learning, and as we consider what it can mean to “[build back better](#)” as a result of COVID-19, it is key to broaden the scope and depth of understanding of how education is central to developing the worldviews and capacities necessary to face and minimise the challenges ahead. As a global educational community, it is beyond time to mobilise education to inform and enable the change needed to mitigate against intertwined global public health and climate emergencies. Let’s not have it take another pandemic for us to realise we need to act on climate change.

## References

- Bai, H., & Scutt, G. (2009). Touching the Earth with the heart of enlightened mind: The Buddhist practice of mindfulness for environmental education. *Canadian Journal of Environmental Education, 14*, 92-106.
- Beyer, R. M., Manica, A., & Mora, C. (2021). Shifts in global bat diversity suggest a possible role of climate change in the emergence of SARS-CoV-1 and SARS-CoV-2. *Science of the Total Environment, 767*(1), 145413.
- Boler, M., & Davis, E. (2021). *Affective politics of digital media: Propaganda by other means*. Routledge.
- Chet Bowers. (2021, March 9). [Wikipedia](#).
- Ellsworth, E. (2004). *Places of learning: Media, architecture, pedagogy*. Routledge.
- Frost, R. (2020, February 11). [Is social media fuelling the spread of climate change misinformation?](#)
- Gaztambide-Fernández, R. A. (2012). Decolonization and the pedagogy of solidarity. *Decolonization: Indigeneity, Education & Society, 1*(1), 41-67.
- Goodell, J. (2020, December 7). [How climate change is ushering in a new pandemic era](#). *RollingStone*.
- Hargis, K., & McKenzie, M. (2020). *Responding to climate change: A primer for K-12 education*. The Sustainability and Education Policy Network, Saskatoon, Canada.
- Henderson, J. A., Bieler, A., & McKenzie, M. (2017). Climate change and the Canadian higher education system: An institutional policy analysis. *Canadian Journal of Higher Education, 47*(1), 1-26.
- Hoggett, P. (Ed.). (2019). *Climate psychology: On indifference to disaster*. Palgrave Macmillan.
- Jesuit, D. K., & Williams, R. A. (2018). *Public policy, governance and polarization: Making governance work*. Routledge.
- Kollmuss, A., & Agyeman, J. (2010). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research, 8*(3), 239-260.
- Kwauk, C. (2020, February 25). [Roadblocks to quality education in a time of climate change](#). Brookings.
- Kwauk, C., & Casey, O. (2021, January 6). [A new green learning agenda: Approaches to quality education for climate action](#). Brookings.
- Lertzman, R. (2015). *Environmental melancholia: Psychoanalytic dimensions of engagement*. Routledge.
- McCowan, T. (2020). *The impact of universities on climate change: A theoretical framework*. Transforming Universities for a Changing Climate, Working Paper Series No. 1.
- McKenzie, M. (2009). The places of pedagogy: Or, what we can do with culture through intersubjective experiences. *Environmental Education Research, 14*(3), 361-373.
- McKenzie, M. (2019, May 13). Interview with Will Brehm (No. 154) [\[Audio podcast\]](#). *FreshEd*.
- McKenzie, M. (2021). Climate change education and communication in global review: Tracking progress through national submissions to the UNFCCC Secretariat. *Environmental Education Research, 27*(5), 631-651.
- McKenzie, M., & Aikens, K. (2021). Global education policy mobilities and subnational policy practices. *Globalisation, Societies and Education, 19*(3), 311-325.
- McKenzie, M., & Bieler, A. (2016). Critical education and sociomaterial practice: Narration, place, and the social. In C. Russell & J. Dillon (Eds.), *(Re)thinking environmental education*. Peter Lang.
- McKenzie, M., Hart, P., Jickling, B., & Bai, H. (Eds.). (2009). *Fields of green: Restorying culture, environment, and education*. Hampton Press.
- Mills, J. N., Gage, K. L., & Khan, A. S. (2010). Potential influence of climate change on vector-borne and zoonotic diseases: A review and proposed research plan. *Environmental Health Perspectives, 118*(11), 1507-1514.
- Sauvé, L. (n.d.). [Lucie Sauvé](#). Google Scholar.
- Shah, S. (2020). *Pandemic: Tracking contagions, from Cholera to Coronaviruses and beyond*. HarperCollins India.

Trócaire. (2021, February 18). [5 lessons Dr. Mike Ryan says we need to learn from COVID-19](#). *Trócaire*.

Tuck, E., McKenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-colonial, and decolonizing perspectives on place and environmental education research. *Environmental Education Research*, 20(1), 1-23.

UNESCO. (2020). *Integrating action for climate empowerment into nationally determined contributions: A short guide for countries*. UNESCO.



*NORRAG Special Issue 06, October 2021*



Network for international policies and  
cooperation in education and training  
Réseau sur les politiques et la coopération  
internationales en éducation et en formation

20, Rue Rothschild | P.O. Box 1672  
1211 Geneva 1, Switzerland  
+41 (0) 22 908 45 47  
norrag@graduateinstitute.ch



@norrag



@norrag.network

[www.norrag.org/nsi](http://www.norrag.org/nsi)

ISSN: 2571-8010



9 772571 801003