

Volume 29, Issue 1, 2024

SARE

Southern African Review of Education

Special Issue

**Researching, Teaching and Learning During Times of Crises:
Experiences of the Global South**

Editors: Rekha Pappu, Yusuf Sayed, Shireen Motala, and Padma Sarangapani

**A Review of Comparative Education,
History of Education and Educational
Development**



SACHES

THE SOUTHERN AFRICAN COMPARATIVE AND HISTORY OF EDUCATION SOCIETY

Southern African Review of Education (SARE) is the journal of the Southern African Comparative and History of Education Society (SACHES). It was previously published together with **Education with Production (EWP)**, the journal of the Foundation for Education with Production.

Editor of SARE (Acting): Charl C. Wolhuter - North-West University
Tel: (018) 299-1881, e-mail: Charl.Wolhuter@nwu.ac.za

Associate Editors

Linda Chisholm
Peter Kallaway
Crain Soudien

Louw de Beer
Mark Mason

Aslam Fataar
Yunus Omar

Editorial Board

Martin Carnoy, Stanford University, USA
Cati Coe, Rutgers, The State University of New Jersey, USA
Wim Hoppers, Stockholm University, Sweden
Kenneth King, Edinburgh University, Scotland
Simon McGrath, Nottingham University, UK
Karen Mundy, Ontario Institute for Studies in Education, Toronto, Canada
Joel Samoff, Stanford University, USA
Yusuf Sayed, University of Sussex, UK, and University of Amsterdam, The Netherlands
Gita Steiner-Khamsi, Teachers College, Columbia University, USA
Sharon Subreenduth, Bowling Green State University, Ohio, USA
Richard Tabulawa, University of Botswana
Leon Tikly, Bristol University, UK
Keith Watson, University of Reading, UK
Allan Wieder, University of South Carolina, USA
Willy Wielemans, CESE, Brussels, Belgium

SACHES Executive Committee

Julianna Smith, Thulani Zengele, Carlo Daniels, Jo-Anne Koch, Charl Wolhuter (Acting SARE Editor-in-Chief), Bernard O Nyatuka, Fumbani Mphande, Moleboheng Ramulumo

ISSN 1563-4418

Production editor and typesetting: Moira & John Richards (mr@br3.co.za)

Printing: Minit Print Hatfield (012 362 2807)

SARE

Southern African Review of Education

**A journal of comparative education, history of education
and educational development**

Volume 29, Issue 1, August 2024

Special Issue

**Researching, Teaching and Learning During Times of Crises:
Experiences of the Global South**

Editors: Rekha Pappu, Yusuf Sayed, Shireen Motala, and Padma Sarangapani

Contents

EDITORIAL NOTES

Researching, teaching and learning during times of crises: Experiences of the Global South

Rekha Pappu, Yusuf Sayed, Shireen Motala & Padma Sarangapani..... 5

ARTICLES

Education in the eye of the storm: A bibliometric review of research on global crises and their impact on Southern African education (2000–2024)

Emmanuel Ojo 15

Crises and education policymaking for social justice: Choices, constraints and commitments

Yusuf Sayed 41

The pandemic and the platformisation of education

Gurumurthy Kasinathan 62

Higher education during COVID-19 crisis: Situation, presence, and place

Padma M. Sarangapani 84

Education policymaking during the COVID-19 pandemic in India and South Africa:
Implications for equity and quality

Rekha Pappu and Yusuf Sayed..... 100

South–South collaboration during the COVID-19 pandemic: The case of CL4STEM

Tanushree Rawat and Payal Aggarwal 116

Researching in the time of COVID-19: Doctoral student experiences from South Africa
and India

Ekta Singla, Halima Namakula and Emaya Kannamma 133

Deliberating on student protests and the COVID-19 pandemic disruptions: The South African
higher education case

Otilia Chiramba and Shireen Motala 152

REVIEW ESSAY

Aditi Desai and Deemah Lone

Reports by multiple international organisations on education during COVID-19 166

BACK MATTER

Contents of previous issues of SARE 175

Guidelines to contributors..... 183

Author guidelines 186

Calls for papers..... 187

SACHES Membership Form 193

Editorial notes

Researching, teaching and learning during times of crises: Experiences of the Global South

Rekha Pappu, Yusuf Sayed, Shireen Motala & Padma Sarangapani

Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next.

(Arundhati Roy, 2020, para. 48)

Introduction

Globally, there have been 776,754,317 confirmed cases of COVID-19 since the virus was first detected in 2019, including 7,073,466 deaths reported to the World Health Organization, and a total of 13.6 billion vaccine doses administered worldwide.¹ The COVID-19 pandemic, however, is not the only crisis that the world faces. It sits alongside a crisis of environment involving a rise in global temperatures, extreme weather patterns, and deadly droughts. It is also accompanied by economic crises and instability as well as humanitarian crises such as conflicts and wars in Yemen, Sudan, Myanmar, and Palestine. In education, such interlocking and intersectional crises have disrupted schooling and higher education, limited access to education and meaningful learning, and affected the well-being, safety, and security of teachers, lecturers, learners, education officials, and communities. The long-term learning and psychological and social-emotional detriments of crises have affected the marginalised and impoverished communities the most.

It is against such a backdrop that this special issue of the *Southern African Review of Education (SARE)* seeks to understand the nature and forms of crises, responses to them, as well as implications for building a future resilient and crises-prepared education system committed to equitable and quality education. This special issue on researching, teaching, and learning during crises has its origins in the time of the COVID-19 pandemic, remembrance of which seems to be largely fading from collective memory—except when occasionally revived through reports of fatalities from a new strain of virus in some or other part of the world. The overwhelming global experience of being caught unawares by a crisis of the scale of the pandemic that began in 2020 seems to be gradually waning.

And yet, the pandemic has helped sharpen awareness of crises in general, and crises of specific

¹ Data accessed on November 9, 2024 from <https://data.who.int/dashboards/covid19/vaccines?n=o->

kinds—dangers imminent from strife, political and economic instabilities, climate change, zoonotic diseases, migration and displacement, natural disasters, and so on. The COVID-19 pandemic impacted all parts of the world and made obvious a range of limitations as well as possibilities, including in the realm of education. It therefore becomes possible to draw on the experience(s) of COVID-19 to reflect more broadly on the nature of crises, how crises impact education, and also about the very nature of teaching and learning that is cast into further relief during times of crises. Through this special issue of *SARE* we return to the crisis experienced in education during the COVID-19 pandemic in the belief that analysing this period would enable better preparedness and ability to face up to future emergencies and challenges.

Efforts at understanding the impact of the COVID-19 crisis in various domains of our society such as health, education, employment, tourism, economy, and so forth, were made early on, even during the time of the pandemic itself. Various stakeholders including governments, academics, media persons, policymakers, education leaders, teachers, and students, among others, sought to analyse the situation even as they dealt in real time with multiple and interrelated problems engendered by the pandemic. The genesis of this special edition too, involving various contributors, is to be traced back to the pandemic.² The papers included here have drawn on frameworks emphasising equity, social justice, and epistemic access to reflect on the context in which teaching and learning was taking place during COVID-19. Situating the enquiry within a comparative framework has been a critical part of the approach adopted by the contributors given that the effort was to be able to theorise the implications of the pandemic for education in countries of the Global South.

The articles included in this special issue raise important questions about the nature and structure of the curriculum that was followed during the pandemic in schooling and higher education, the delivery of education using technology, the requirements regarded as necessary for carrying out research, and the challenges in general for achieving through education the goals of social justice. The special issue brings together—through analysis, evidence, and argumentation—valuable explanatory frameworks that explore the disruptive possibilities that exist because of the pandemic. The editorial begins by reflecting on the theme of “well-being,” a concern that underlies all the papers included in the issue, although none of them engage with the notion directly. This is followed by an overview of the papers that have been included in the journal. The editorial concludes by outlining a way forward through which the ability of education systems to anticipate,

2 This special edition has its origins in a series of six seminars organised in hybrid mode between 2021 and 2023 bringing together education practitioners and scholars from countries of the Global South, more specifically India and South Africa as members of the BRICS network, funded by the National Institute of Humanities and Social Sciences (NIHSS), South Africa. This grant was led by Padma Sarangapani and Rekha Pappu (Tata Institute of Social Sciences, India), and Shireen Motala (University of Johannesburg) and Yusuf Sayed (then Centre for International Teacher Education, Cape Peninsula University of Technology, Cape Town). The deliberations at the seminars stimulated the need to produce this special edition and make an open call to scholars to contribute to scholarship to better understand the perspectives of teacher educators, teachers, and students about education delivery during the pandemic, identifying the epistemic disruptions caused by COVID-19 as well as the discourses of decolonisation, and roles and responsibilities of the governments and the civil society. The editors of this special edition would like to thank all those who participated in the NIHSS BRICS Network project from the various institutions.

plan, and respond to present and future crises can be ensured.

Well-being of students and teachers in the Global South

The notion of well-being has acquired an overall and heightened importance following the crisis of the pandemic, including in discourses involving education. However, it is yet to be theorised from the perspective of the Global South, which is one of the reasons for focussing briefly on it in this editorial. An enquiry about the nature and significance of the notion of well-being for the countries of the Global South now seems possible given the more recent experience of the COVID-19 pandemic and the ongoing emphasis, especially at an epistemic level, on decolonisation. Some preliminary reflections are presented here in order to build a more comprehensive understanding of what well-being means in the context of the Global South. Crucially, the framing of the discussion here seeks to move away from an individualistic, psychological framing of the idea of well-being to understanding the context and socio-structural conditions under which individual well-being and resilience are established (or not).

The term well-being re-entered common usage and vocabulary during the COVID-19 pandemic as a way of assessing and explaining the experiences of different groups of people the world over, especially their psycho-emotional states of being. Within education, the accounts of students, teachers, teacher educators, and researchers were significant. Although the crisis of the pandemic led to the widespread use of the term well-being, the concept itself is not new. Engagement with notions of well-being has been an integral part of most societies. The Global South in particular has a long and rich history of deliberations on the subject, especially through spiritual and religious discourses (see for instance Clark-Deces & Smith, 2017; Mahali et al., 2018; Metz, 2014). In terms of modern scholarship, it is acknowledged that well-being is a multi-dimensional concept and its analysis spans a range of disciplines such as psychology, sociology, and development studies—disciplines that emerged in the 19th and 20th centuries. With the dominance of the psychological and economical perspectives when exploring issues of well-being in the Global North, a singular focus emerged, which was on individual well-being.

More recently, the scope of the term well-being was sought to be expanded to include entire countries and regions through the development of well-being metrics or indices of well-being. This shift emerged from the “beyond GDP” (or beyond Gross Domestic Product) movement, a movement that articulated its dissatisfaction with the exclusive use of economic considerations as a measure of development while ignoring other factors that add immense value to human life (Mahali et al., 2018). The OECD and the countries of the Global North have been at the forefront of developing a framework for measuring the well-being of countries. For instance, the OECD Well-Being Framework has 11 dimensions as being essential to people’s lives, here and now, ranging from health status and education and skills to the quality of the local environment, personal security and subjective well-being, as well as more material dimensions such as income and wealth, housing, and so forth. Together with these efforts at expanding the scope of our understanding of well-being, approaches that prioritise individual interests continue apace. The

hugely influential PERMA model, which was introduced by Seligman (2011), provides one such example. The PERMA model, which has positive emotion, engagement, relationships, meanings, and accomplishments as its core elements, continues to be widely used in well-being and happiness studies.

Studies have also been conducted, as indicated by various scoping reviews, to understand the specificities of the well-being of teachers and students. These scoping reviews analysed articles published in peer-reviewed journals on teacher and student well-being (Dreer, 2023; Hossain et al., 2023, Yu et al., 2022). The scoping review on “What Constitutes Student Well-Being” by Hossain et al. (2023), identified four approaches that were used to conceptualise student well-being in the articles that were reviewed: hedonic, eudaimonic, integrative (i.e., combining both hedonic and eudaimonic), and others. With regard to teacher well-being, the in-depth analysis by Dreer of 44 studies covering 76,990 teachers, for instance, highlighted “the significant relationship of teacher well-being with several factors and desirable outcomes, including teachers’ sleep quality, teacher retention, teacher–student relationships, and student outcomes” (2023) p. 1). The review by Yu et al. (2022) of literature pertaining to Asia found that the knowledge base on teacher well-being is at a beginning stage. All the three scoping reviews referenced here noted that the focus of academic research on teacher and student well-being peaked during the pandemic. Significantly, too, all the reviews pointed to the marked absence of studies from the Global South. Based on his analysis, Dreer (2023) in fact explicitly stated:

The majority of the studies on the outcomes of teacher wellbeing were conducted in North America or Europe. The [analysis] also shows that Asia and Australia are underrepresented, and, as yet, no (published) studies on this topic have been conducted in South America or Africa. (2023, pp. 8–9)

In the post-pandemic phase though, the need for examining the connections among the different levels of the socio-political and economic structures in order to understand the notion of well-being among students and teachers in the Global South as well has become increasingly evident. The many accounts that emerged from countries of the Global South of students and teacher experiences during the pandemic indicate that such experiences were different from those obtained in the Global North. Pending systematic research and enquiry, some preliminary observations can be made about the well-being of teachers by drawing upon some of these accounts from the two contexts (of the Global North and the Global South).

Reflecting on the experience of teaching during the pandemic, a professor at the University of Washington pointed out:

The increased workload and anxiety is something I don’t think non-teachers can quite grasp—for me, at least, to teach effectively and thoughtfully requires about twice the time, and there’s a constant sense you’re never doing enough. What so many teaching faculty are feeling is far beyond stress—it’s exhaustion, radical self-doubt, and wondering how much longer we can sustain it. (Tugend, 2020, p. 12)

The distinction between the figures of the teacher and the non-teacher is sharp in this account and perhaps one that most teachers would concur with. While the sense of anxiety is common in the

experiences of teachers from the Global North and the Global South, there are some differences too.

In the accounts available to us of teachers' experiences of the pandemic from the Global North, the sense of frustration and stress was expressed in individuated terms of increased workload, deteriorated work-life balance, and reduced research and publications, which in turn, were perceived to negatively impact career prospects. There is a significant difference though, in the way teachers from the Global South related their experiences of the pandemic. For instance, when teachers from India described their experience of teaching during the periods of lockdown, their focus was predominantly on students who had no access (or very limited access) to devices and internet facilities that in turn disrupted teaching (Batra et al., 2021; Cherian, 2021). Also, several faculty members of higher education institutions wrote about and initiated petitions against the plight of migrants and other disadvantaged groups of people who had to suffer the consequences of a lockdown (Apoorvanand, 2021).

The analytical frameworks of well-being presently available with us are not adequate to the task of explaining the nature of these different responses. To an extent, such explanations can be drawn from the critiques put forward by researchers such as those belonging to the group, Wellbeing in Developing Countries (WeD; Mahali et al., 2018). WeD has conducted empirical studies to nuance the notion of well-being such that the hegemonic notions of well-being that draw primarily on experiences of individuals from the Global North are challenged and revised.

In contrast with the economic and psychological perspectives adopted by most studies that focus on experiences in the Global North, Mahali et al. (2018) suggested that social well-being and relational well-being frameworks could better explain the contexts of the Global South, which is marked by poverty, inequality, and strife. In their paper titled "Networks of Well-Being in the Global South: A Critical Review of Current Scholarship," Mahali et al. pointed out that relationships are at the centre of the notion of well-being in the southern perspective. According to them, the psychological perspectives of well-being "tend to view relationships as something people have and place less emphasis on the fact that people are who they are through relating with others" (Mahali et al., p. 8). They therefore emphasised that "well-being [is] best explored through a focus on relationships, not only on the social processes between the individual and the collective but also on the interactions between the local and the global, including people's interactions with the state" (Mahali et al., p. 12). These are important insights that need further substantiation and research to help build a robust understanding of the well-being of teachers and students in the Global South.³

3 Another concept that is closely related to the notion of well-being is resilience. The importance of education system resilience too, is increasingly being emphasised in the post-pandemic period. Here too, there is need for theorising education system resilience specifically for the context of the Global South.. The modern education system was introduced in most countries of the Global South during the period of their colonisation by European nations. In their post-independence phase, these countries have experienced a series of challenges and crises in their efforts at stabilising their education systems so that they can be more inclusive and universal in their coverage (Sarangapani & Pappu, 2021). Several countries in the region are marked by political and economic instability, and face varied vulnerabilities. The education systems of these countries are ranked very low vis-à-vis a range of global indicators. Given that education systems in these countries are constantly in a "catch-up" mode and

Overview

The papers in this special edition address several key and interrelated themes vis-à-vis the primary concern about issues of education during crises of different kinds. The first set of papers explores, more generally, the notion of how crises have shaped, altered, and reconfigured education and the implications that this has for teaching, learning, and research.

The paper by Emmanuel Ojo titled “Education in the Eye of the Storm: A Bibliometric Review of Research on Global Crises and Their Impact on Southern African Education (2000–2024)” provides an in-depth bibliometric review of the literature on educational impact over that 5-year period. The analysis specifically concentrates on global crises and their implications for education, with a special emphasis on the Southern African region. Yusuf Sayed’s paper on “Crises and Education Policymaking for Social Justice: Choices, Constraints, and Commitments” analyses how the pandemic specifically, and crises more generally, have shaped, altered, and reconfigured education policy and policymaking. Particular attention is paid to teachers and their work and working conditions. The paper begins by establishing the context of the educational crisis during the pandemic, after which policy, policymaking, and the nature of knowledge and science in policy formulation are explored. This is followed by a discussion on teacher professional development and the digitalisation and datafication of education, which the pandemic intensified. The paper concludes by outlining an alternative agenda that centres social justice concerns.

Crises and the COVID-19 pandemic, in particular, heralded great hope, advocacy for, and belief in the power of technology to generate new modalities of education and usher in a period of personalised learning. The paper by Gurumurthy Kasinathan, “The Pandemic and the Platformisation of Education,” provides a critical review of the potential and pitfalls of technology in the context of heightened expectations vis-à-vis technology. The paper begins by arguing that the EdTech crisis that is unfolding is not inevitable, but a function of its political and pedagogical design. The paper argues that public ownership and control are imperative for teachers to exercise their agency towards a meaningful pedagogic design of EdTech. If proprietary EdTech can be regulated and a public EdTech ecosystem (comprising public production, distribution, and appropriation of EdTech) can be made available an integral part of the public provisioning of education, the crisis can be avoided. The paper forcefully points out that free and open digital tech movements have been independently working to enable such public ownership and the same needs to be mainstreamed into EdTech. The example of Kerala, a state in south India, is showcased as one that developed a public EdTech ecosystem over the last two decades—enabling it to avert the EdTech crisis, and ensuring that it was less affected during the pandemic

The paper by Padma M. Sarangapani, “Higher Education During COVID-19 Crisis: Situation, Presence, and Place” uses a phenomenological approach to focus on the experiences in higher

are continually addressing various crises, it could be argued that resilience is an endemic trait of the education systems in these countries; however, this is rarely by design. Participatory foresight research in the Global South is therefore required to ensure that education systems are resilient, by design, in the face of existing and future threats and disruptors—especially with regard to the inclusion of marginalised groups.

education institutions during the crisis caused by COVID-19. Using auto-ethnographic recollection of experiences as they unfolded over the two years of the crisis, the paper focuses on the psychological and emotional phases through which faculty and students dealt with new learning, teaching, and institutional forms, leading to a focus on the centrality of place, presence, and situation in understanding the practice and effects of higher education.

Two papers in this special edition map the broad effects of the pandemic as well as provide context-specific analyses in relation to education during periods of crises of different kinds. Rekha Pappu and Yusuf Sayed provide a grounded account of the nature of educational policies in their paper titled “Education Policymaking During the COVID-19 Pandemic in India and South Africa: Implications for Equity and Quality.” The education policies that were introduced, almost on the go, in two countries of the Global South during the pandemic are examined in some detail. In particular, the paper focuses on the education policies that were introduced in both countries during the pandemic for modifying the academic calendar, revising the curriculum, adopting new pedagogic and assessment strategies, as well as altering the role of teachers.

Tanushree Rawat and Payal Aggarwal’s paper on “South–South Collaboration During the COVID-19 Pandemic: The Case of CL4STEM,” reflects on how one multi-sited international collaborative project—Connected Learning for STEM (CL4STEM)—negotiated the challenges of COVID-19. CL4STEM is a South–South partnership between Nigeria, Bhutan, Tanzania, and India, to pilot a scalable EdTech teacher professional development innovation using open educational resources and mobile-based communities of practice to build STEM teachers’ knowledge, attitudes, and practices for higher order thinking with inclusion and equity. It powerfully argues that even during crises, deep authentic engagement, and focusing on human elements of mutual trust and respect, strengthen South–South collaboration for sustainable educational innovation.

Higher education institutions’ staff and students are adversely impacted by crises and the COVID-19 pandemic was no exception. Two papers in this edition pay particular attention to higher education focusing on staff, students, and on student protest. The co-authored paper by Ekta Singla, Halima Namakula, and Emaya Kannamma titled “Researching in the Time of COVID-19: Doctoral Student Experiences From South Africa and India,” draws on the UNESCO Right to Higher Education social justice framework as a lens to gain a deeper understanding of the experiences during the pandemic of doctoral students in India and South Africa. The paper draws attention to various problems encountered as part of the doctoral research process, including data collection as well as access to physical and online research-related resources based on the research area, gender, and geographical context. It also highlights instances of mental health challenges among the students in a context where support was limited or totally unavailable. The paper concludes with actionable recommendations to remove structural barriers and enhance student access to research-related resources, aiming to build resilient and inclusive support systems in higher education in order to achieve the transformative potential of higher education.

Otilia Chiramba and Shireen Motala’s paper, “Deliberating on Student Protests and the COVID-19

Pandemic Disruptions: The South African Higher Education Case” argues that the student protests of 2015/2016 and the COVID-19 pandemic highlighted and worsened underlying problems within South African higher education. The authors argue that these events have emphasised the need for comprehensive structural and systemic reforms in the higher education sector. They go on to outline the nature of changes that need to be introduced in the higher education system of South Africa such that future crises do not disrupt learning opportunities for students.

The last contribution in this special edition is a review essay that turns its attention to three reports of international organisations focusing on lessons learnt from the COVID-19 pandemic. The essay by Aditi Desai and Deemah Lome reviews three reports published by multilateral organisations that work at both global and regional levels of governance and who have material and ideational influence on global and regional policy discourses and decisions in education. The reports were specifically commissioned to examine context-specific strategies in the field of education for navigating the pandemic and the diverse approaches adopted by various countries, including Africa and Asia. The three reports were selected because they cover countries across the world and focus on a contextualised understanding of governmental responses, aiding stakeholders in discerning effective measures amidst dynamic and multifaceted challenges.

Conclusion

As a portal to a future, the pandemic has made possible on the one hand, more progressive and liberatory approaches to education. These include greater attention to the well-being needs of students, teachers, and education staff. On the other hand, the pandemic has brought in its wake retrogressive trends in education. These include an approach to education that discounts the necessity and importance of the sociality of teaching and learning, and the privatisation of education provision and delivery. Also of concern, is the fact that crises have a tendency to displace policy attention from existing challenges and existing inequities. There is thus an urgent imperative for an intersectional approach to education policy making, which sees crisis as compounding and interrelational.

As we navigate what is regarded as a post-COVID world, the reality is that fragility and crisis remain a sad reality for many education systems, globally. To this end, there is a need to build the knowledge base for developing just and resilient education systems to deal with future crises. A progressive understanding of education crisis would centre the needs of those who are most marginalised in seeking to establish just resilient education systems.

Acknowledgements

We are grateful to Professor Padma Sarangapani, co-editor of this special issue, for her comments and feedback on earlier drafts of the editorial. All the editors would like to thank colleagues who were closely involved in the conceptualisation and organisation of the series of six seminars (between 2021 and 2023) that eventually resulted in the publication of this special issue of *SARE*: Valerie Bocarro, Thembele Cebekulu, Meera Chandran, Otilia Chiramba, Portia Maphuti, and Marcina Singh-de Vaal. Arpitha Jayaram provided valuable academic and administrative support throughout the process of editing and

consolidating articles for the journal. We are also grateful to all those colleagues who generously assisted us by peer reviewing the manuscripts and providing constructive feedback. Finally, we are grateful to Moira Richards for her expert editorial inputs and for her patient support that helped us to bring out this special issue of *SARE*.

References

- Apoorvanand. (2021, May 6). *Indian universities are pretending everything is normal as the world around them is collapsing*. Scroll.in.
<https://scroll.in/article/994076/indian-universities-are-pretending-everything-is-normal-as-the-world-around-them-is-collapsing>
- Batra, P., Bazaz, A., Shanmugam, A., Ranjit, N., Kaur, H., & Das, R. (2021). *Impact of the COVID-19 pandemic on education, livelihoods and health*. TEF India, IIHS.
<https://doi.org/10.24943/ICPELHI08.2021>
- Cherian, R. (2021, 27 March). The odd one is “out”: Voices from the classroom. *Economic and Political Weekly*. <https://www.epw.in/engage/article/odd-one-out-voices-virtual-classrooms>
- Clark-Deces, I., & Smith, F. M. (2017). Well-being in India: A historical and anthropological report. In R. J. Estes & M. J. Sirgy (Eds.), *The pursuit of human well-being: The untold global history* (pp. 135–160). Springer.
- Dreer, B. (2023). On the outcomes of teacher wellbeing: A systematic review of research. *Frontiers in Psychology, 14*, 1–16. <https://doi.org/10.3389/fpsyg.2023.1205179>
- Hossain, S., O’Neill, S., & Strnadová, I. (2023). What constitutes student well-being: A scoping review of students’ perspectives. *Child Indicators Research, 16*, 447–483.
<https://doi.org/10.1007/s12187-022-09990-w>
- Mahali, A., Lynch, I., Fadji, A. W., Tolla, T., Khumalo, S., & Naicker, S. (2018). Networks of well-being in the Global South: A critical review of current scholarship. *Journal of Developing Societies, 34*(3), 1–28. <https://doi.org/10.1177/0169796X18786137>
- Metz, T. (2014). Ubuntu: The good life. In A. C. Michalos (Eds.), *Encyclopedia of quality of life and well-being research* (pp. 6761–6765). Springer.
https://doi.org/10.1007/978-94-007-0753-5_4029
- Roy, A. (2020, April 3). *The pandemic is a portal*. Financial Times.
<https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>
- Sarangapani, P. M., & Pappu, R. (2021). Education systems in South Asia: An introduction. In P. M. Sarangapani & R. Pappu (Eds.), *Handbook of education systems in South Asia: Global education systems* (pp. 1–26). Springer. https://doi.org/10.1007/978-981-13-3309-5_77-1
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.
- Tugend, A. (2020). “On the verge of burnout”: COVID-19’s impact on faculty well-being and career plans [Research brief]. The Chronicle of Higher Education.
https://connect.chronicle.com/rs/931-EKA-218/images/Covid%26FacultyCareerPaths_Fidelity_ResearchBrief_v3%20%281%29.pdf

Yu, D., Chen, J., Li, X., & Yan, Z. (2022). Trajectory of teacher well-being research between 1973 and 2021: Review evidence from 49 years in Asia. *International Journal of Environmental Research and Public Health*, 19(19), 12342. <https://doi.org/10.3390/ijerph191912342>

Editors

Professor Rekha Pappu is faculty with the School of Educational Studies at the Tata Institute of Social Sciences, Hyderabad.

Yusuf Sayed is Professor of Education in the Faculty of Education at the University of Cambridge.

Shireen Motala is the DST/NRF South African Research Chair (SARChI) in Teaching and Learning, and Professor, Faculty of Education, University of Johannesburg.

Address for correspondence

rekha.pappu@tiss.ac.in

Education in the eye of the storm: A bibliometric review of research on global crises and their impact on Southern African education (2000–2024)

Emmanuel Ojo
University of the Witwatersrand

Abstract

This research article provides an in-depth bibliometric review of the literature on educational impacts during the period from 2000 to 2024. The analysis specifically concentrates on global crises and their implications for education, with a special emphasis on the Southern African region. Through an integration of epistemic injustice, critical pedagogy, and social justice into the search strategy employed in the article, this research provides an understanding of how various crises—including pandemics, wars, economic recessions, and environmental disasters—have intensified disparities in education and posed significant challenges to the resilience of education systems. The article surveys 5,511 publications and draws on a rigorous methodological approach to examine the volumes, growth trajectories, dominant themes, and collaboration networks of literature within the field of education research. It identifies key contributors and identifies areas where further research is required. The results indicate a need for a greater focus on the human aspects of crises, highlighting the critical need for policies and approaches to education that prioritise equity, inclusion, and resilience. The study provides specific suggestions for policymakers, educators, and researchers to create education systems that could effectively change and adapt during times of crisis, thus ensuring equitable and quality education for everyone. This analysis not only makes a valuable contribution to the scholarly debate on education during periods of crisis, but also offers practical perspectives for envisioning different approaches to research, teaching, and learning in order to foster a more equitable and resilient future.

Keywords: bibliometric review, education impact, global crises, Southern African education, epistemic injustice, critical pedagogy, social justice

Ojo, E. (2024). Education in the eye of the storm: A bibliometric review of research on global crises and their impact on Southern African education (2000–2024). *Southern African Review of Education*, 29(1), 15–40.

Introduction

Global crises, such as conflicts, pandemics, environmental disasters, and economic recessions, have profoundly affected educational systems worldwide, over the past two decades. These crises have exacerbated pre-existing inequalities, disrupted education, and exposed vulnerabilities—particularly in the Global South and Southern Africa (Menon & Motala, 2022; Ojo & Lorenzini, 2021; Ojo & Onwuegbuzie, 2020; Ojo et al., 2023; Swart et al., 2022). The pursuit of social justice, equity, and inclusion in education has been significantly hindered, disproportionately affecting marginalised and vulnerable populations (Ainscow, 2020; Batisai et al., 2022; Govender et al., 2020).

This paper presents a rigorous bibliometric analysis of literature on educational impact during global crises between 2000 and 2024. By examining trends, patterns, and gaps, the analysis aims to inform policy, practice, and future research. The overarching question was: “What developments have occurred in the academic discourse on education during global crises between 2000 and 2024, and what knowledge can be gained to reimagine research, teaching, and learning in the Southern African region?” The paper addresses four specific research questions:

1. What is the volume, growth trajectory, and pattern of literature on the impact of global crises on education from 2000 to 2024, and how do the trends in Southern Africa compare to the global landscape?
2. What are the dominant themes and their interconnections, which have evolved in educational research during global crises?
3. Who are the top contributing authors, institutions, and countries in the field of educational impact research during global crises, how have the contributions from South African researchers and institutions evolved over time, and are there any gaps or opportunities for further research?
4. What are the nature and dynamics of collaborations among leading countries and institutions in educational impact research during crises from 2000 to 2024?

This bibliometric analysis contributes to the development of resilient and equitable education systems by offering a critical understanding of social justice, epistemic justice, and the possibility of redefining education during crises. The findings have implications for future research, policy, and practice within the Southern African context, highlighting approaches to building adaptive and transformative education systems.

Impact of global crises on education: A review through the perspectives of epistemic injustice, critical pedagogy, and social justice

This section untangles the complex web that crises have woven around the educational landscape, particularly within the Southern African context. Drawing upon theoretical frameworks such as Fricker’s epistemic injustice, Freire’s critical pedagogy, and Fraser’s social justice, it illuminates how crises have disrupted educational continuity and deepened pre-existing inequities. The section

offers a chronology of major global crises from 2000 to 2024, and concludes by presenting how these crises have specifically impacted education systems in Southern Africa.

Crises are disruptions with significant global impact affecting the United Nations Sustainable Development Goals (SDGs), including SDG 4 on quality education. Fricker (2007) articulated epistemic injustice as a wrong done to someone in their capacity as a knower, and which is magnified during crises when marginalised voices are silenced. Freire's (1970/2005, 2020) critical pedagogy emphasised education's role in challenging injustices, and Fraser (2009) framed social justice in terms of participation, distribution, and recognition.

Table 1 provides a succinct summary of 14 key global crises from 2000 to 2024, and their impacts on education. These crises have resulted in reduced education funding, school closures, displacement of students and teachers, worsening inequalities, and redirection of resources. The COVID-19 pandemic has significantly disturbed the education sector, impacting more than 1.6 billion students, globally (UNESCO, 2020).

Table 1
Global crises and their impact on education (2000–2024)

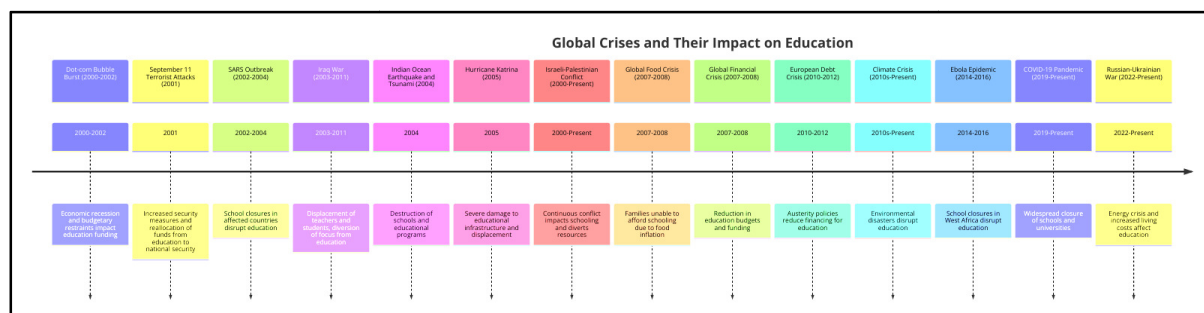
Years	Crisis	Education impact
2000–2002	Dot-com bubble burst	Reduced education funding; slowed technological integration
2001	September 11 terrorist attacks	Reduced student mobility; funds diverted to security
2002–2004	SARS outbreak	School closures in Asia; disrupted learning
2003–2011	Iraq War	Displaced students and teachers; diverted resources
2004	Indian Ocean earthquake and tsunami	Destroyed schools; set back education in region
2005	Hurricane Katrina	Damaged schools; displaced students; revealed inequities
2000–ongoing	Israeli-Palestinian conflict	Reduced quality; funds diverted to security; student/teacher stress
2007–2008	Global food crisis	Reduced school attendance due to food insecurity
2007–2008	Global financial crisis	Education budget cuts; reduced access and quality
2010–2012	European debt crisis	Austerity measures reduced education opportunities
2010s–present	Climate crisis	Infrastructure damage; migration; need for adaptation
2014–2016	Ebola epidemic	Widespread school closures in West Africa
2019–present	COVID-19 pandemic	Largest education disruption in history; remote learning
2022–present	Russo-Ukrainian War	Higher costs; reduced digital access; impacted vulnerable areas

Figure 1 shows the interrelated nature of these 14 global crises and their cumulative impact on education. The analysis emphasises the necessity for resilient and adaptable education systems,

requiring investment in infrastructure, digital technologies, teacher education, and assistance for marginalised communities. Addressing underlying factors such as climate change, conflict, and inequality is imperative for establishing a stable atmosphere for education.

Figure 1

Chronological overview of global crises and their impact on education (2000–2024)



In the Southern African context, the region has exhibited greater vulnerability to the crises, exacerbating pre-existing difficulties in education systems and infrastructures (Rudling et al., 2023). The economic difficulties following the global food crisis have imposed challenges on families in prioritising education (World Food Programme, 2022), resulting in increased student attrition and compromised educational quality (Nikolaidis et al., 2022). The COVID-19 pandemic intensified educational disparities (Haelermans et al., 2022) and exposed the digital divide. Southern African nations must invest in adaptable, inclusive, and resilient educational systems to promote peace and sustainable development in the region.

Data collection and methodology

Dataset collection

The data for this paper were collected through Scopus, a comprehensive and authoritative database of peer-reviewed papers. The search strategy was informed by the *Southern African Review of Education (SARE)*'s call for papers on "Re-imagining Research and Teaching and Learning During Times of Crises," which mentioned seven distinct terms and themes related to crisis: COVID-19 pandemic, crisis of environment, humanitarian crises, economic crises, and instability's educational impact, social-emotional detriments, and educational inequities. The search string used was:

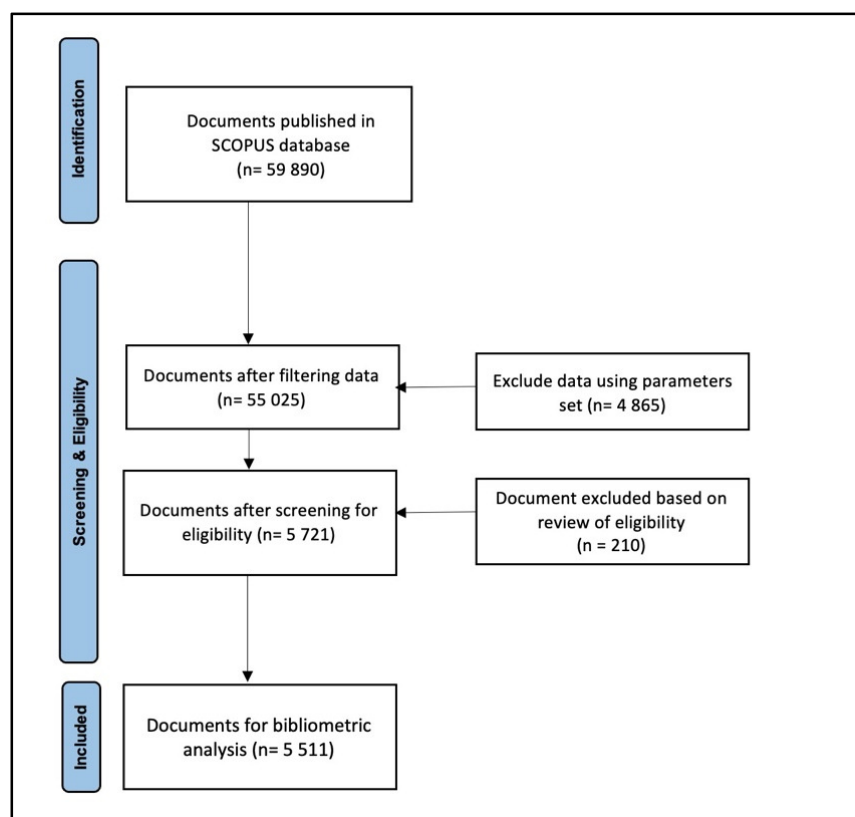
("crisis" OR "Covid-19" OR "environmental" OR "humanitarian" OR "economic") AND ("education" OR "teaching" OR "learning" OR "inequities") AND ("research" OR "policy analysis" OR "discourse" OR "methods") AND ("justice" OR "equity" OR "care" OR "empathy" OR "trust") OR ("resilience" OR "quality education") OR ("Africa" OR "Global South")

Dataset pre-processing and refinement

The study conducted a preliminary search on February 20, 2024, and a final retrieval on March 21, 2024, yielding 59,890 documents. To ensure relevance and manageability, a systematic pre-processing protocol was employed, resulting in 5,511 documents pertinent to the research scope.

Filtration criteria included: temporal scope (2000–2024), subject areas (social sciences, and arts and humanities), document types (peer-reviewed articles, book chapters, reviews, editorial books, and conference proceedings), and keywords (20 terms reflecting multidimensional aspects of crises). The corpus was confined to English-language publications. The PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) flow diagram (Figure 2) presents the studies included.

Figure 2
Processing of document eligibility based on PRISMA guideline



Data analysis strategies

Initial data analysis using Scopus provided a descriptive breakdown of the 5,511 documents. Further analysis using VOSViewer included performance analysis and science mapping the bibliometric assessments. Performance analysis metrics included publication volume and citation frequency. Science mapping techniques like citation analysis, bibliographic coupling, and network

analysis were used to explore research components' interplay and structural linkages. Table 2 outlines the organisational framework for the findings and discussion section.

Table 2
Bridging analysis and insight in educational crisis research

Findings & discussion section	Title	Research questions	Analysis type
1	Research landscape: An overview of literature on educational impacts of global crises (2000–2024)	RQ1: Volume, growth, and patterns of literature on educational impacts of global crises	Performance analysis
2	Publication trends: Examining growth and types of publications (2000–2024)	RQ1: Volume, growth, and patterns of literature on educational impacts of global crises	Performance analysis
3	Key contributors: Mapping authors, institutions, and countries in educational impact research during crises	RQ3: Top contributing authors, institutions, and countries in educational impact research	Performance analysis
4	Collaborative networks: Analysing partnerships among leading countries and institutions (2000–2024)	RQ4: Nature and dynamics of collaborations among leading countries and institutions	Science mapping
5	Influential journals: A bibliometric perspective on top publications shaping the discourse on education during crises	(Supports all research questions by identifying influential journals)	Performance analysis
6	Thematic landscape: Exploring dominant themes and interconnections in educational research during global crises	RQ2: Dominant themes and their interconnections in educational research during global crises	Science mapping

Findings and discussion

This section, as previously outlined, unveils the results of the bibliometric analysis and contextualises the findings within the evolving academic dialogue on education amidst global crises between 2000 and 2024. It explores the progress and insights gleaned, with an eye to re-envisioning research, teaching, and learning in the Southern African context.

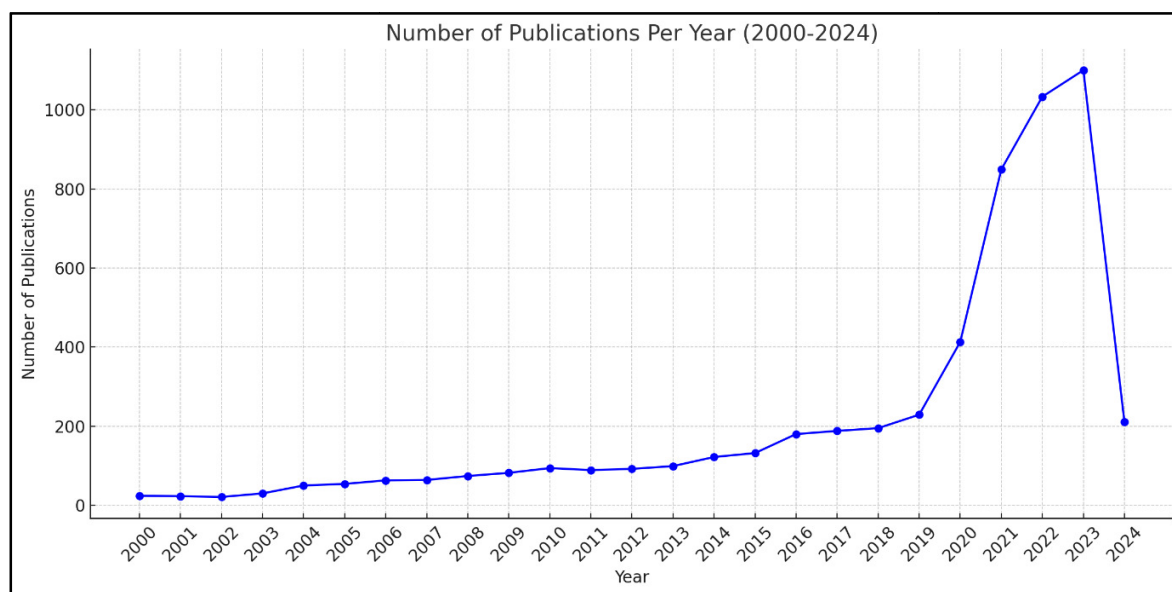
1. Research landscape: Volume, growth, and patterns of literature on educational impacts of global crises (2000–2024)

Analysis of the quantity of publications and the trajectory of growth between 2000 and 2024 provides an in-depth overview of yearly patterns in research productivity within the field encompassed by the dataset. Through an analysis of the annual publication count, significant insights can be obtained regarding the progression and transformation of the research domain during the designated timeframe. The purpose of this section is to emphasise important patterns of growth and noteworthy observations, providing insight into the dynamics of the field being studied. To conduct the analysis, a summary of the yearly publication counts from 2000 to 2024

was generated through Scopus as earlier presented. This allowed for a succinct presentation of the trend, and facilitated observation of any significant variations or patterns in the number of publications throughout the period. The findings demonstrate a complex pattern of growth, marked by discrete stages of progress (see Figure 3).

Figure 3

Growth trajectory of publication volume from 2000 to 2024



Between the years 2000 and 2019, the dataset demonstrates a consistent upward trend in the annual count of publications. The number of publications published annually experienced a notable increase from a modest 24 in 2000 to a respectable 229 in 2019, suggesting a sustained development in research productivity over this period. The slow growth indicates a persistent interest and commitment to the field as scholars persistently investigated and enhanced the current knowledge base.

Nevertheless, the year 2020 represented a significant milestone in the trajectory of progress. Since the beginning of 2020, there has been a notable surge in the quantity of publications, with the count almost doubling from 229 in 2019 to a remarkable 413 in 2020. The marked increase persisted without interruption—as seen by the publication count reaching 849 in 2021, 1,033 in 2022, and ultimately reaching an impressive peak of 1,100 in 2023. The abrupt and substantial increase in the number of publications indicates a notable change in the research environment during this time, indicating a heightened degree of interest, investment, and activity in the field. It should be emphasised that the figure for 2024 (211 publications) is incomplete data because 2024 is the current year. As the number of publications increases throughout the course of the year, it is anticipated that the final count will rise, potentially mirroring the rising trajectory observed in previous years.

The dataset has a growth trend that depicts a research ecosystem that is both increasing and

dynamic. The continual growth observed between 2000 and 2019 signifies a steady progress in the field of study, which laid the groundwork for the future increase in the number of publications. The significant surge starting from 2020 is especially remarkable because it indicates a convergence of variables that have stimulated research activity in the field. These aspects may encompass worldwide occurrences, progress in the domain, augmented research funding, or improved partnership prospects. Additional examination of the precise factors contributing to this expansion would yield useful perspectives on the fundamental mechanisms influencing the research environment.

In summary, analysis of the number of publications and the trend of growth between 2000 and 2024 demonstrates a notable increase in research productivity in the field encompassed by the dataset. The research landscape demonstrates a dynamic and developing nature, as evidenced by the consistent growth witnessed between 2000 and 2019, followed by a significant increase from 2020 onwards. Although the available data for the year 2024 are limited, the general pattern indicates a sustained level of interest and investment in the field of research. The present research provides a basis for subsequent investigation into the various causes that contributed to this expansion, thus facilitating a more comprehensive understanding of the evolution and prospective trajectories in the field. As scholars and individuals with vested interests negotiate this dynamic environment, the knowledge acquired from this analysis could provide valuable guidance for making strategic choices, allocating resources, and determining research objectives. Ultimately, these insights could contribute to the progress of knowledge and innovation in the field.

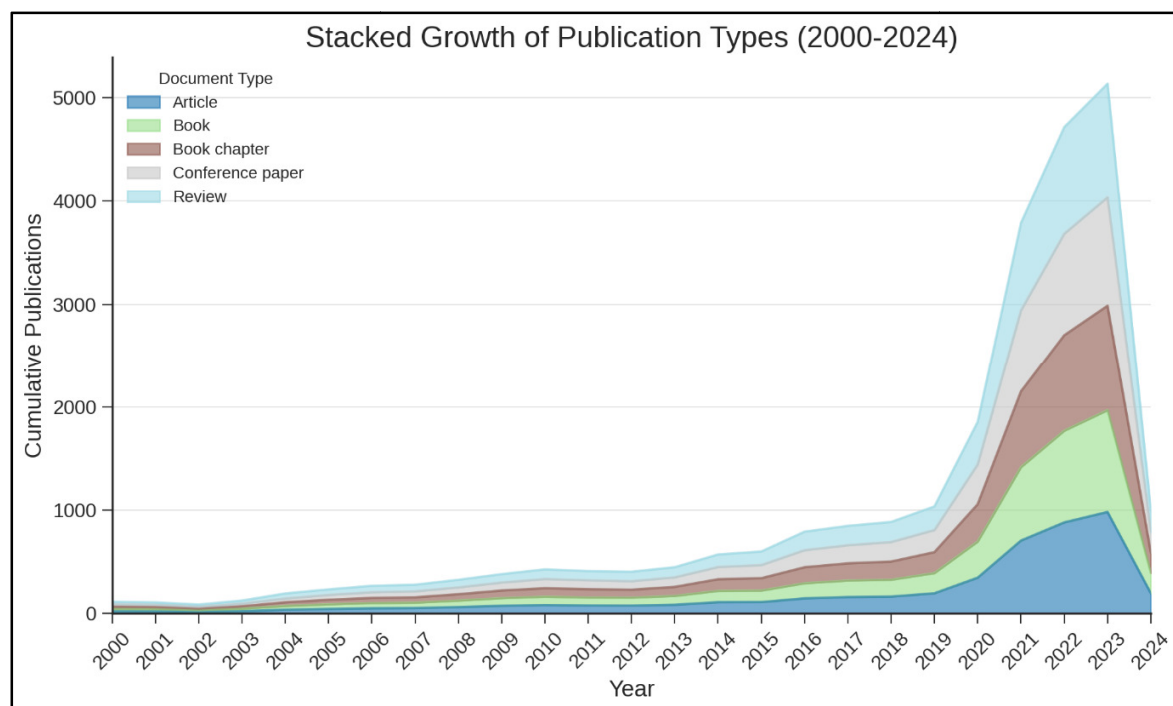
2. Trends in publication types and growth (2000–2024)

This section focuses on examining the trends and distribution of different types of documents published as a body of knowledge between 2000 and 2024. The article analyses the data by year and document type, and tracks the frequency with which each type appeared annually in order to understand the changes in the academic publishing landscape (see Figure 4).

I found that journal articles were the most common publication type throughout the years, emphasising their crucial role in sharing research. From 2020, I observed a significant increase in reviews and conference papers, indicating a shift towards synthesising research findings and fostering community engagement through conferences. There was also a slight rise in book chapter publications after 2010, peaking in 2022, which suggests a growing interest in offering deeper, topic-specific insights in edited volumes.

The years 2020 to 2024 marked a notable surge in all publication types, especially articles and reviews, pointing to their continued importance in research dissemination. Although conference papers and book chapters also increased, they did not grow as much as articles and reviews. It is worth noting that the data for 2024 are incomplete because the year had not ended at the time of this analysis. Although articles and reviews remain prominent, there is a temporary dip in conference papers and book chapters for 2024, which should be viewed cautiously until the year's full data are available.

Figure 4
Trends in publication types and growth from 2000 to 2024



These findings highlight a dynamic evolution in academic publishing, with a sustained preference for articles but growing interest in reviews, conference engagements, and in-depth book chapters. This evolving trend suggests that the academic community should adapt their publication strategies in order to stay ahead, ensuring that research contributions are diverse, relevant, and impactful.

3. Key players: Top contributing authors, institutions, and countries in educational impact research during global crises

This section incorporates both a table and an overlay visualisation to present the major contributors, affiliations, and geographical trends in the literature, comparing Southern Africa with global contributions. By integrating VOSViewer for the bibliometric analysis, the minimum number of documents and citations threshold for authors to be included in the Top 10 list were established as four and 15, respectively. Only 10 of the 19,652 authors fulfilled these criteria (see Table 3).

The primary contributors are authors from Europe (namely Germany and the United Kingdom), Asia (including Singapore), Australia, and the United States. In terms of citation count and h-index, Stefan Sieber from Germany holds the highest position with 525 citations, while Sarah Curtis from the United Kingdom follows closely with 279 citations and an h-index of 27. Jennifer Cleland, an author with institutional affiliation in Singapore, possesses the highest h-index of 52, garnering a total of 71 citations across four articles. Patricia Eadie and Penny Levickis from

Australia have garnered a total of 69 citations each, accompanied by h-indexes of 34 and 19, respectively. South Africa exhibits a significant presence in the academic community, as evidenced by the inclusion of Glenda Kruss (188 citations, h-index 27), Tholang Mokhele (28 citations, h-index 13), and Katijah Khoza-Shangase (15 citations, h-index 25) in the top 10 authors. Nevertheless, the citation counts, and h-indexes of these scholars tend to be somewhat lower compared to their counterparts from other countries. The visualisation overlay (Figure 5) indicates that the highly cited works of South African authors are primarily concentrated in the years 2016–2018. This suggests that there is potential for more recent and influential research to come from the country in this field.

Table 3
Top 10 most cited authors

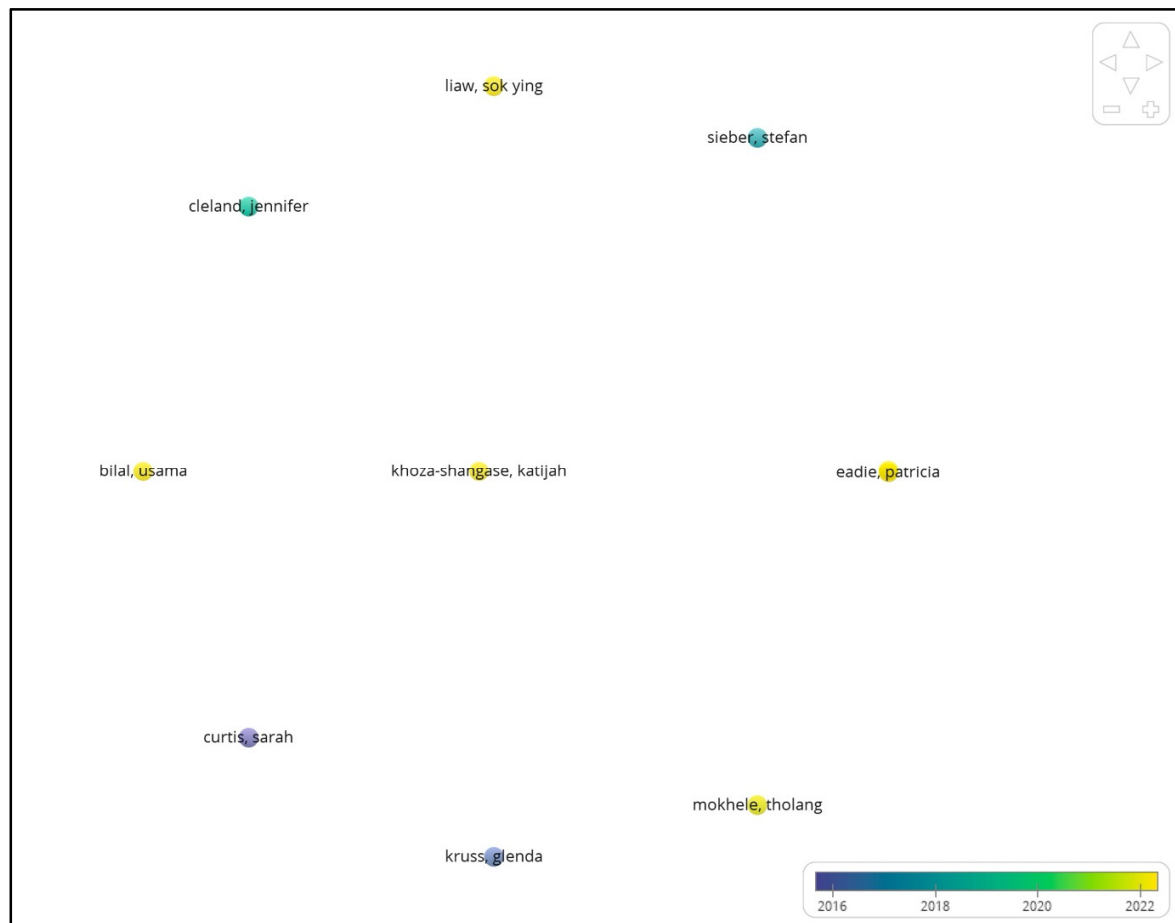
Full name	Affiliation	Number of publications	Total citations	h-index
Stefan Sieber	Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany & Faculty of Life Sciences, Humboldt Universität zu Berlin, Berlin, Germany	4	525	37
Sarah Curtis	Queen Mary College, University of London, London, UK	4	279	27
Glenda Kruss	Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council, 116–118 Buitengracht Street, Cape Town 8000, South Africa	4	188	27
Jennifer Cleland	Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, Singapore	4	71	52
Patricia Eadie	Melbourne Graduate School of Education, University of Melbourne, Melbourne, Australia	4	69	34
Penny Levickis	Melbourne Graduate School of Education, University of Melbourne, Melbourne, Australia, & Genetics, Murdoch Children's Research Institute, Parkville, Australia	4	69	19
Sok Ying Liaw	Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore	4	40	38
Tholang Mokhele	Geospatial Analytics, eResearch Knowledge Centre, Human Sciences Research Council, Pretoria, South Africa	4	28	13
Usama Bilal	Urban Health Collaborative, Drexel University, Philadelphia, Pennsylvania, USA & Epidemiology and Biostatistics, Drexel University, Philadelphia, Pennsylvania, USA	4	18	34
Katijah Khoza-Shangase	Department of Audiology, Faculty of Humanities, University of the Witwatersrand, Johannesburg, South Africa	4	15	25

The overlay visualisation offers supplementary understanding regarding the temporal distribution of the scholarship produced by these significant authors. Stefan Sieber and Jennifer Cleland have

publications concentrated within the 2018–2020 range (green), as indicated by the colour coding. In contrast, Sarah Curtis, Patricia Eadie, and Glenda Kruss have published works that are older and have received a significant number of citations, mainly during the period of 2016 to 2018 (blue/green). However, some authors, such as Patricia Eadie, show recent activity in the 2022 range (yellow), highlighting their continued influence in the field.

Figure 5

Overlay visualisation of nine of the top 10 authors



In summary, this bibliometric study, augmented by the utilisation of tabular data and VOSViewer overlay visualisation, provides insights into the global dispersion of significant authors, their citation effects, and the temporal patterns observed in their extensively referenced publications. The overlay visualisation offers supplementary understanding regarding the temporal distribution of the scholarship produced by these significant authors. Stefan Sieber and Jennifer Cleland have publications concentrated within the 2018–2020 range (green), as indicated by the colour coding. In contrast, Sarah Curtis shows publications in the earlier range (blue, 2016–2018).

Notably, the South African authors—Khoza-Shangase, Mokhele, and Kruss—along with Bilal and Eadie, have the most recent publications, falling within the 2020–2022 range (yellow). This

suggests an increasing and recent contribution from South African researchers and others to this field of study. Although South Africa has a position among the leading contributors, there exists potential for further development in terms of citation effect and the production of more recent, highly important works when compared to their counterparts from other areas.

4. Collaboration dynamics: Nature and evolution of partnerships among leading countries and institutions (2000–2024)

This section presents the collaboration patterns over the period 2000–2024 amongst the top 10 countries across the world to elucidate the landscape of global scholarly collaboration. To do this, a rigorous selection methodology was implemented. The criteria for inclusion in this article were determined by two primary quantitative thresholds: a minimum of 107 documents and at least 20 citations per country. These benchmarks were meticulously selected to filter for substantial scholarly output and impact, ensuring that only the most prolific and influential research landscapes were considered. Of a pool of 251 countries, only 10 countries met these stringent parameters, thus forming the cohort for further analysis (see Table 4). South Africa, with its 616 documents and 6,346 citations, not only surpassed the set thresholds but also demonstrated significant international research engagement, as evidenced by its robust total link strength of 151. This positioning underscores South Africa's pivotal role in the global knowledge exchange network.

Table 4

Top 10 countries by number of documents, citations, and total link strength

Country	Citations	Documents	Total link strength
United States	36,671	1,856	334
United Kingdom	14,853	718	296
Canada	8,140	383	170
Australia	7,394	348	150
South Africa	6,346	616	151
Netherlands	3,121	115	74
Spain	2,381	134	40
Germany	2,175	153	54
China	2,072	164	77
India	2,000	164	80

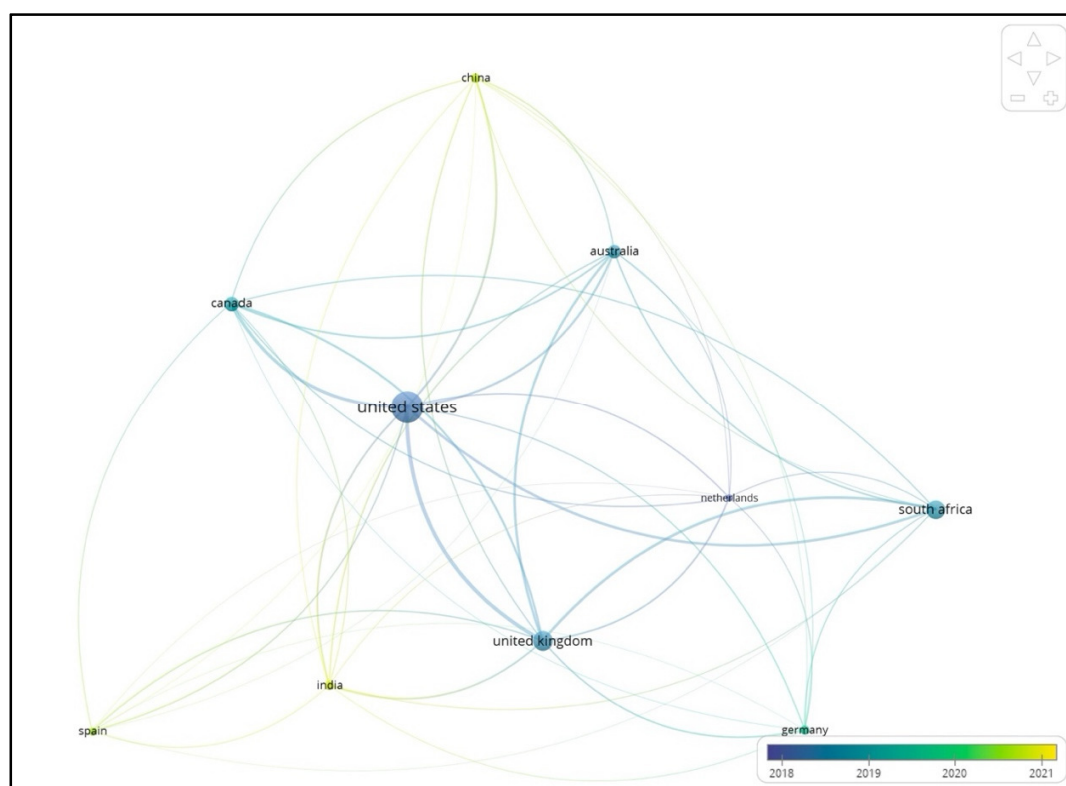
Upon satisfying the selection criteria, the top 10 countries representing a spectrum of global regions were delineated for a more granular investigation of their collaborative ties. These nations, spanning continents from North America to Asia, underscore a diverse yet interconnected scholarly ecosystem. Notably, within this constellation of intellectual synergy, South Africa stands

as the sole representative of the Southern African region. This highlights a geographic imbalance in global research collaboration, underscoring the need for increased integration of various other regions to foster a more equitable knowledge-sharing platform. The data reveal that while collaboration is indeed vibrant among these 10 nations, it is imperative to acknowledge and address the underrepresentation of entire regions in the global research network.

The resulting visualisation from the bibliometric review (Figure 6) provides a dynamic representation of the scholarly connections among the selected countries over the period from 2018 to 2021. The network graph is a testament to the intricate web of academic interactions, with the United States assuming a central node, indicative of its extensive document production and citation impact. The temporal colour gradient applied to the linkages affords a nuanced understanding of the evolution of these connections over time. It is apparent that collaboration is not static; it flourishes and morphs, reflecting shifts in research priorities, funding landscapes, and geopolitical influences. The prominence of South Africa within this visualisation signifies its growing research stature and the pivotal role it plays in channelling knowledge within and beyond its continental confines. The visual map thus serves not only as a retrospective analysis but also as a clarion call for proactive strategies to cultivate a more diverse and inclusive global research network.

Figure 6

A temporal network visualisation of global research collaboration



5. Influential voices: A bibliometric analysis of top journals shaping the discourse on education during crises

The bibliometric analysis of the top academic sources by documents and citations provides valuable insights into the influential journals shaping the discourse around re-imagining research, teaching, and learning during times of crises, as called for by *SARE*. The criteria for selecting the top journals were based on the total link strength, which measures the citation connections between sources. Table 5 shows the 10 sources that were chosen from a dataset of 1,800 academic sources, focusing on those with the greatest total link strength.

Table 5

Top journals by impact factor, citations, documents, and total link strength

Journal	Impact factor	Citations	Documents	Total link strength
Social Science and Medicine	5.4	8,128	170	1
Sustainability	3.9	3,704	282	3
BMC Medical Education	3.9	2,393	147	14
Academic Medicine	5.354	1,470	68	2
Nurse Education Today	2.533	1,442	54	2
Journal of Surgical Education	2.9	1,281	38	7
Medical Teacher	3.65	1,061	36	13
Medical Education	7.5	921	35	5
Human Resources for Health	4.5	843	41	1
Journal of Education and Health Promotion	1.4	90	36	0

An examination of the citation counts in Table 5 reveals the relative influence and impact of key journals in the field of education during crises. Leading the list is *Social Science and Medicine* with the highest citation count, indicating its central role in the citation network. Its substantial number of documents and citations suggest a significant contribution to understanding the social dimensions of health and education during crises. Close behind are *Sustainability* and *BMC Medical Education*, also demonstrating strong document counts. These journals are well positioned to address *SARE*'s themes of sustainability in education policy and innovative pedagogies in health professions education.

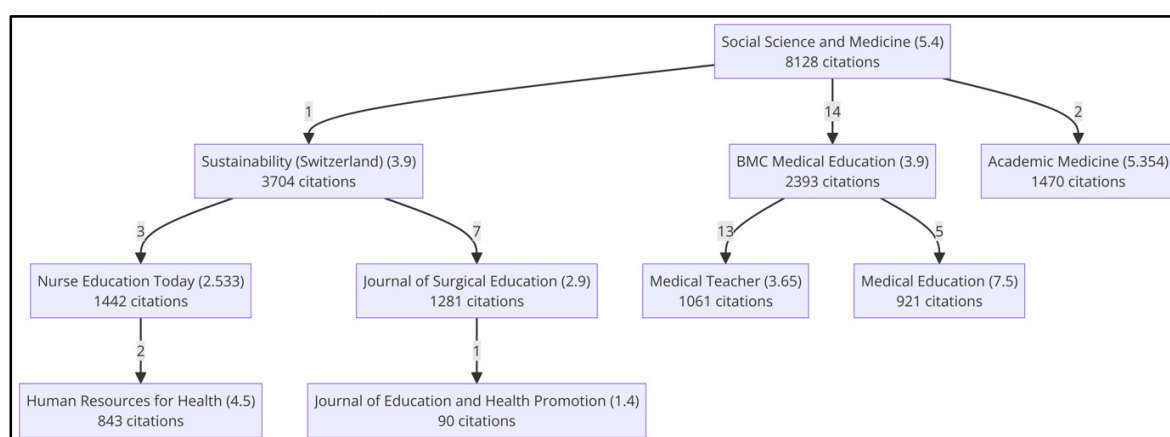
Other notable inclusions are *Academic Medicine*, *Nurse Education Today*, and *Journal of Surgical Education*, which collectively represent key platforms for exploring the impact of crises on medical and nursing education, as well as the importance of care, empathy, and equity in educational practices. *Human Resources for Health* and *Journal of Education and Health*

Promotion, although lower in link strength, offer unique perspectives on critical issues highlighted by *SARE*, such as the role of academia in social justice and the promotion of health through education.

Figure 7 visualises the academic journal citation network by setting minimum thresholds of 35 documents and 50 citations for a source to be included. This figure showcases a diverse range of journals across disciplines such as medical education, sustainability, social science, and health resources. The selection criteria and resulting connections illustrate the interdisciplinary nature of research that aligns with *SARE*'s interest in boundary-crossing research.

The network diagram in Figure 7 visualises the interconnections among these top journals, revealing a rich tapestry of knowledge exchange. The centrality of *Social Science and Medicine* and *Sustainability* with their strong citation links to multiple other journals underscores the pivotal role of interdisciplinary research in informing educational responses to crises. *BMC Medical Education* also shows significant connections, particularly with *Medical Education* and *Medical Teacher*, highlighting the important contributions of medical education research in this field.

Figure 7
Academic journal citation network: Impact and interconnectivity



6. Thematic evolution: Dominant themes and interconnections in educational research during global crises

This section has been structured into six sub-sections, each focusing on a specific aspect of the thematic analysis. The first sub-section delves into the methodology employed, followed by an examination of the top keywords and their significance. The third sub-section explores the thematic domains and keyword clusters, and the fourth investigates the interplay and interdependencies of these thematic domains. The fifth discusses the implications for sustainable and equitable education and, lastly, the sixth sub-section provides integrative insights on the thematic landscape.

Methodology: Keyword analysis using VOSViewer

The preceding sections provided a comprehensive review of the research landscape, key authors in the field, and the dynamics of collaboration in the field of educational impact research during global emergencies and disruptions covering the years 2000 to 2024. Building on that groundwork, this section of this bibliometric review, informed by VOSViewer data, critically examines scholarly discourse across two decades, unearthing the predominant themes and their interconnections through an analysis of keywords, their occurrences, and total link strengths.

VOSViewer software was used to analyse 5,511 publications generated from Scopus, revealing a total of 19,886 keywords. To identify the top 20 keywords, a threshold was set in VOSViewer requiring each keyword to have a minimum occurrence of 326. Based on this criterion, VOSViewer calculated the total strength of the co-occurrence links between each of the 20 keywords and all other keywords. This in-depth quantitative analysis, performed across the entire volume of publications, resulted in the data presented by VOSViewer, highlighting the most prominent and interconnected keywords in the field. The data generated are presented in Table 6, and Figure 8 (next sub-section) presents a network graph of keyword co-occurrence to visualise the interconnections of the keywords based on the strength of the co-occurrence.

Table 6
Quantitative analysis of keyword frequency and interrelationship in education research (2000–2024)

Keyword	Occurrences	Total link strength
Human	1,883	8,674
COVID-19	1,757	4,168
Education	1,605	4,720
Humans	1,454	6,913
Article	1,056	5,162
Female	865	4,917
Male	729	4,296
Pandemic	682	3,170
Adult	635	3,763
Learning	531	1,521
Pandemics	434	2,447
South Africa	420	582
Resilience	389	459
Medical education	388	1,858
United States	380	1,597
Equity	375	406

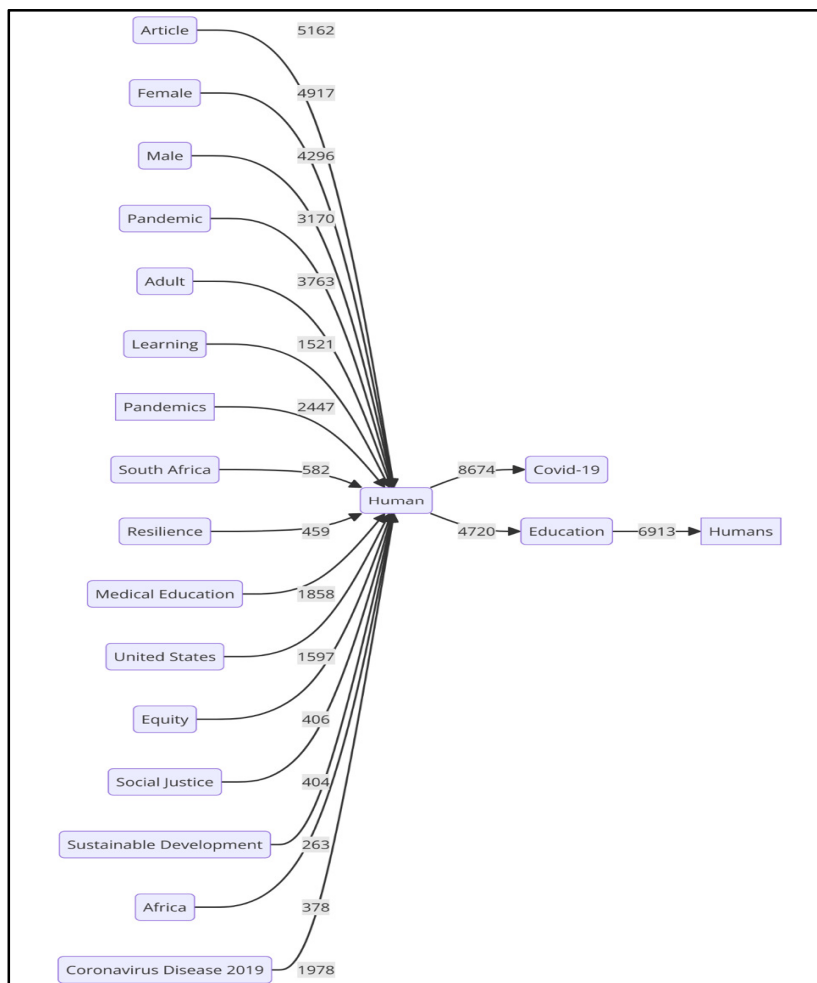
Keyword	Occurrences	Total link strength
Social justice	365	404
Sustainable development	358	263
Africa	338	378
Coronavirus disease 2019	327	1,978

Top keywords and their significance

The keyword analysis using VOSViewer identified the most prominent and interconnected keywords in the field of educational research during global crises. This sub-section delves into these top keywords and their significance in understanding the key themes and priorities that have shaped the research landscape from 2000 to 2024.

Figure 8

Network graph of keyword co-occurrence in education research during global crises



The keyword table (Table 6) provides a solid starting point for this section's thematic analysis. It helps to understand which themes are most important by looking at how often they appear, and how strongly they are connected to other keywords. The keyword, "Human," stands above the rest. This suggests that people are at the very heart of educational research and publications, especially when the impact of major crises like the COVID-19 pandemic is considered. It is evident from this analysis that these global challenges have put a spotlight on the human experience and how it shapes the way we teach, learn, and study. Figure 8 further illustrates the network graph of keyword co-occurrence in education research during global crises.

Thematic domains and keyword clusters

On examining the keyword table and the network graph of keyword co-occurrence, an intricate web of thematic priorities and their dynamic interplay (with the keyword "Human" at the core) reveals six overarching thematic domains: (1) research and demography, (2) health and pandemic, (3) education and learning, (4) socio-political responses, (5) geographic and institutional focus, and (6) research nature and publication. Tables 7 to 12 present how these themes have been arrived at, especially using the network graph to further examine the co-occurrence in the coherent clusters of thoughts through the keywords.

Table 7

Theme 1: Research and demography

Keyword	Occurrences	Total link strength
Human	1,883	8,674
Humans	1,454	6,913
Female	865	4,917
Male	729	4,296
Adult	635	3,763

Table 8

Theme 2: Health and pandemic

Keyword	Occurrences	Total link strength
COVID-19	1,757	4,168
Pandemic	682	3,170
Pandemics	434	2,447
Coronavirus disease 2019	327	1,978

Table 9

Theme 3: Education and learning

Keyword	Occurrences	Total link strength
Education	1,605	4,720
Learning	531	1,521
Medical education	388	1,858

Table 10

Theme 4: Socio-political responses

Keyword	Occurrences	Total link strength
Resilience	389	459
Equity	375	406
Social justice	365	404
Sustainable development	358	263

Table 11

Theme 5: Geographic and institutional focus

Keyword	Occurrences	Total link strength
South Africa	420	582
Africa	338	378
United States	380	1,597

Table 12

Theme 6: Research nature and publication

Keyword	Occurrences	Total link strength
Article	1,056	5,162

Each theme, from “Research and Demography” to “Research Nature and Publication,” represents a collection of scholarly focus, with specific keywords narrating the story of change and continuity.

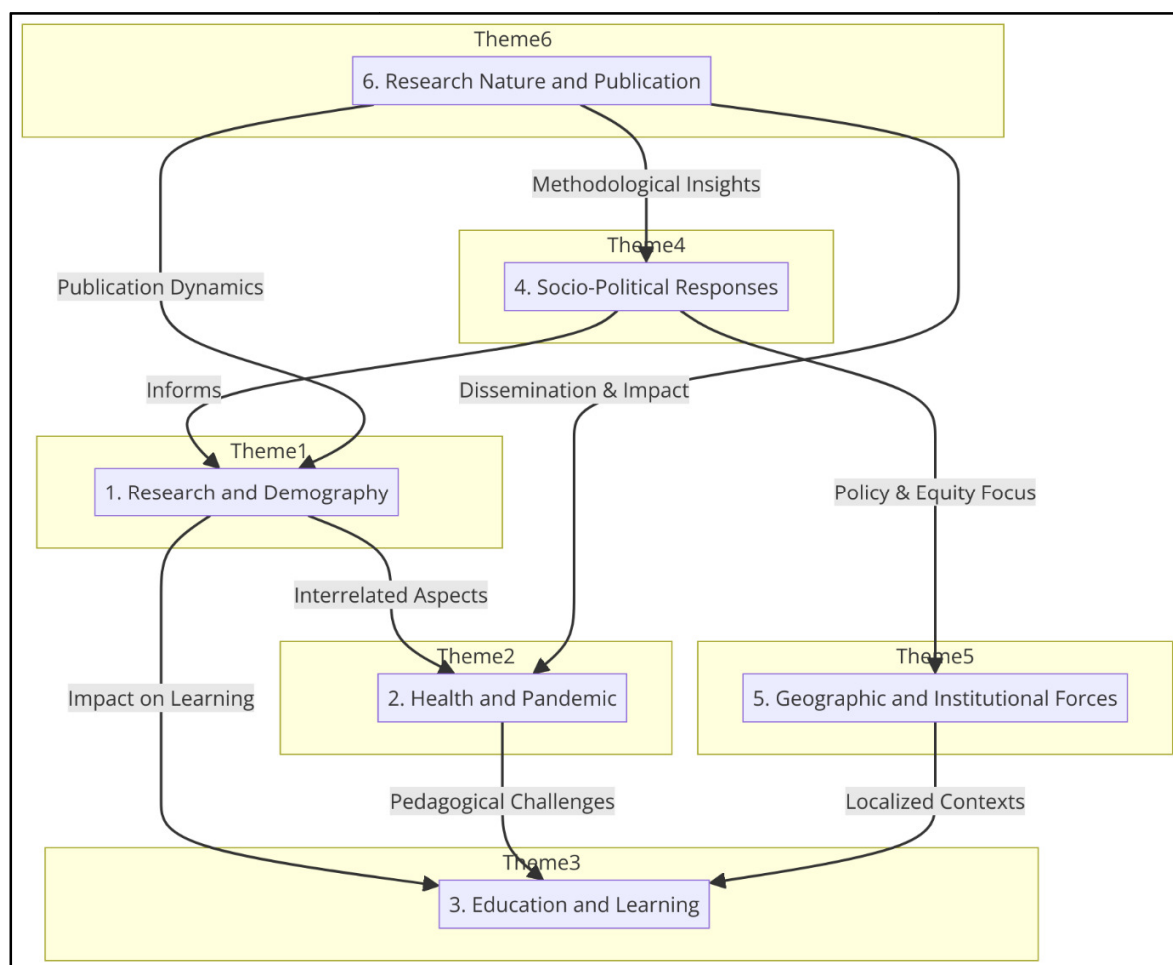
Interplay and interdependencies of thematic domains

The interplay between themes, such as “Health and Pandemic” influencing “Education and Learning,” and “Socio-Political Responses” intertwining with “Geographic and Institutional Focus,” underscores the complex interdependencies that shape the educational landscape. By

aligning these thematic findings with the goals of sustainable and equitable education, this bibliometric review is insightful to guiding stakeholders to embrace a proactive and resilient approach to education in the face of future crises. See the Figure 9 for a presentation of the complex interplay of these themes.

Figure 9

A graphical synthesis of inter-thematic linkages in education research



Implications for sustainable and equitable education

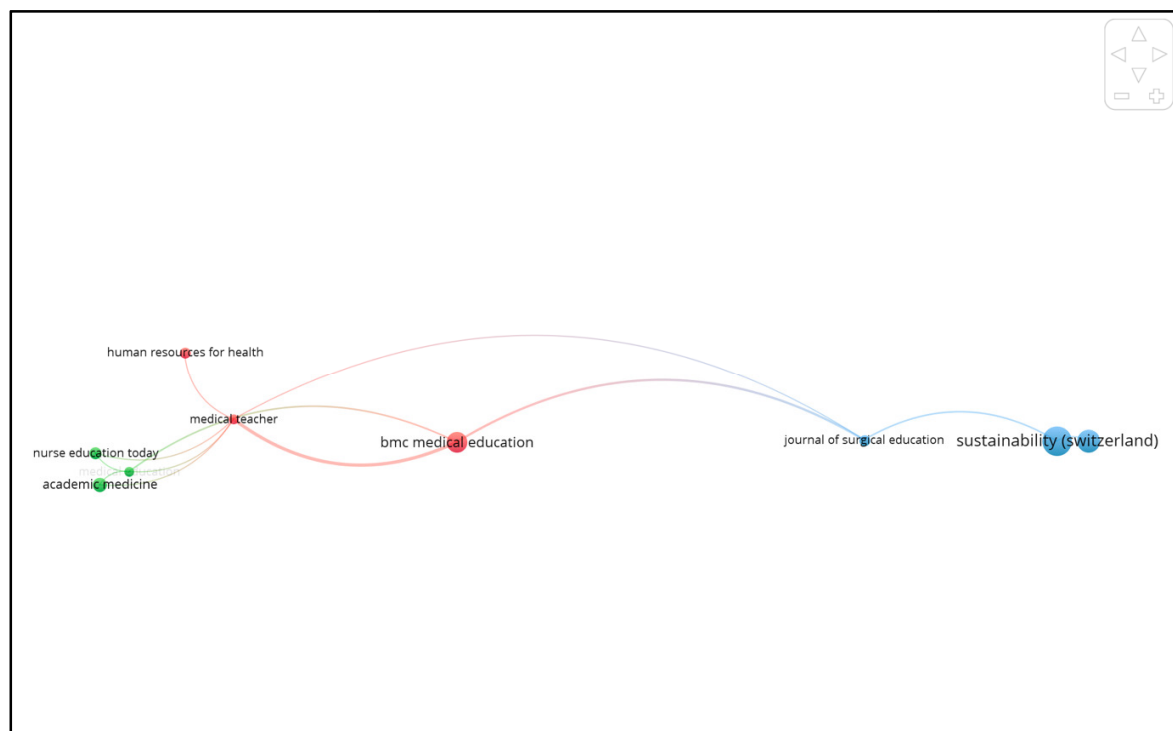
By weaving these clusters into the analytical narrative, this bibliometric review presents a comprehensive and compelling argument that reflects the multifaceted nature of education research during crises. It highlights the interplay between individual experiences, health impacts, pedagogical changes, socio-political actions, localised contexts, and research practices. This not only reinforces the call for a multi-dimensional understanding of crises in education but also underscores the complex interdependencies that define the field's response to unprecedented challenges.

The academic journal citation network illustrated in Figure 10 provides a visual representation of

the impact and interconnectivity of top journals in advancing the research agenda set forth by *SARE*. By showcasing the diverse disciplinary perspectives and critical conversations fostered by these publications, Figure 10 highlights their vital role in charting a path towards a more resilient, equitable, and socially just educational future, which aligns with the implications for sustainable and equitable education.

Figure 10

Academic journal citation network: Impact and interconnectivity



Integrative insights on the thematic landscape

In concluding this section, this bibliometric analysis of the thematic evolution in educational research during global crises from 2000 to 2024 provides a compelling case for the significance of top journals in advancing the research agenda set forth by *SARE*. By employing advanced analytical tools like VOSViewer, this study has unveiled a complex tapestry of interconnected themes, highlighting the multifaceted nature of the field's response to unprecedented challenges. The intricate interplay between the six overarching thematic domains—research and demography, health and pandemic, education and learning, socio-political responses, geographic and institutional focus, and research nature and publication—underscores the dynamic and interdependent nature of educational research during times of crisis. The collective body of work of these top journals, as evidenced by their impact factors, citations, and network positions, demonstrates a commitment to re-envisioning education in times of crisis. By bringing together diverse disciplinary perspectives, fostering critical conversations, and shedding light on the complex interdependencies that shape the educational landscape during crises, these publications

serve as crucial platforms for fostering resilient, equitable, and socially just educational futures. This thematic analysis contributes to the broader discourse on re-imagining research, teaching, and learning during times of crises, empowering researchers, educators, and policymakers to navigate the challenges and opportunities that lie ahead in the pursuit of a more resilient and equitable educational future.

Discussion, context, limitations, and recommendations

This section delves into a comprehensive discussion of the bibliometric review findings, contextualised within the unique socio-political and economic landscape of Southern Africa. By first examining the specific challenges faced by the region, I provide a solid foundation for analysing the implications of the research findings for educational policy, practice, and future research. The discussion is followed by an acknowledgement of the study's limitations, and concludes with a set of recommendations aimed at fostering resilient, equitable, and socially just education systems in the face of global crises.

Contextualising the challenges in Southern Africa

As highlighted in the literature review, the impact of global crises on education in the Southern African context is further compounded by the region's unique socio-political and economic challenges. Political instability, governance issues, and social inequalities (Rudling et al., 2023) have hindered the development of resilient education systems. Moreover, the economic difficulties faced by Southern African nations, such as widespread poverty, high unemployment rates, and limited resources (World Food Programme, 2022), have exacerbated the effects of crises on education. For instance, the economic fallout of the COVID-19 pandemic has disproportionately affected disadvantaged communities in South Africa, widening the educational gap (Haelermans et al., 2022; Swart et al., 2022). Addressing these socio-political and economic challenges is crucial for building adaptable, inclusive, and equitable education systems in the region. The following discussion section builds on this contextual foundation to analyse the findings of the bibliometric review and their implications for educational research and practice in Southern Africa.

Discussion

The bibliometric review of 5,511 documents has offered profound insights into the landscape of educational research amidst global crises, with a particular focus on the Southern African context. This comprehensive analysis has illuminated the evolution and dynamics of academic discourse from 2000 to 2024, shedding light on how pandemics, wars, economic recessions, and environmental disasters have influenced educational systems. The findings reveal a significant emphasis on the human aspects of crises, educational inequalities, and the urgent need for resilient education systems.

In Southern Africa, the intersection of epistemic injustice, critical pedagogy, and social justice within the realm of educational research has been highlighted as pivotal in addressing and

mitigating the adverse effects of global crises on education. The bibliometric analysis successfully mapped the growth trajectory, dominant themes, and collaborative networks in this field, demonstrating a marked increase in research productivity, particularly in response to recent crises such as the COVID-19 pandemic. This surge in scholarly activity underscores a collective drive towards understanding and overcoming the educational challenges posed by these crises.

Significantly, the review has identified gaps in the literature, especially in the integration of social justice and educational equity into the fabric of resilient educational systems. The research underscores the critical role of education in not only navigating but also transforming the societal landscape in times of crisis. Through the lens of Southern Africa, the studies reviewed have brought to the forefront the complexities and nuances of building education systems that are adaptable, inclusive, and capable of ensuring equitable quality education for all.

Limitations

One limitation of this review is the inherent nature of bibliometric analyses, which focus on quantitative metrics and may not fully capture the depth of qualitative insights into the impact of crises on education. Additionally, the reliance on documents indexed within a specific database might exclude relevant literature not captured by the search criteria, potentially limiting the scope of analysis.

Recommendations

Based on the insights garnered from the bibliometric review, several recommendations emerge for policymakers, educators, and researchers:

- **Enhance policy frameworks:** Develop and implement policy frameworks that are responsive to the evolving nature of global crises and their impact on education, with a focus on safeguarding educational equity and social justice.
- **Foster pedagogical innovation:** Promote pedagogical practices that emphasise critical thinking, problem solving, and adaptability to ensure learners can thrive in uncertain and rapidly changing environments.
- **Strengthen research collaborations:** Encourage interdisciplinary and cross-regional research collaborations to broaden the understanding of crises' impacts on education, and share best practices for resilience and inclusivity.
- **Invest in infrastructure:** Prioritise investment in resilient educational infrastructure and technology to support continuous and accessible learning, especially in under-resourced communities.
- **Support educator development:** Equip educators with the skills and resources needed to navigate the challenges posed by crises, emphasising empathy, equity, and social justice in teaching practices.

By addressing these recommendations, stakeholders could contribute to the development of educational systems that are not only resilient in the face of global crises but also deeply committed to promoting equity, inclusivity, and social justice. This, in turn, would ensure that

education remains a powerful tool for societal transformation and sustainable development, particularly in the Southern African context and beyond.

Conclusion

This research article examined the impact of global crises on education, highlighting a landscape characterised by challenges and possibilities for radical transformation, specifically within the Southern African context. By addressing the unique socio-political and economic challenges faced by the region, the article provides a nuanced understanding of the compounding effects of crises on education systems. The results emphasise the significant importance of education in effectively addressing and navigating the complex barriers presented by crises, emphasising the need to reimagine education systems that possess both resilience and a commitment to equitable and just treatment. The article presents an in-depth review of educational research considering global disruptions, utilising a rigorous bibliometric analysis.

The findings reveal a growing emphasis on the human aspects of crises, educational inequalities, and the urgent need for resilient education systems. By mapping out the growth trajectory, dominant themes, and collaborative networks in this field, the article offers a comprehensive overview of the evolving landscape of educational research amidst global crises. Moreover, the article highlights the intersection of epistemic injustice, critical pedagogy, and social justice within the realm of educational research in Southern Africa. It underscores the critical role of education in not only navigating but also transforming the societal landscape in times of crisis. The review identifies gaps in the literature, particularly in the integration of social justice and educational equity into the fabric of resilient educational systems, providing valuable insights for future research and policy development.

By answering the four research questions posed in the introductory section, this review makes a substantial contribution to the scholarly discourse on education in times of global crises. It sheds light on the approaches that education systems could adopt to adapt to the challenges posed by a swiftly evolving global landscape marked by ongoing crisis. By doing so, it promotes the idea of a future in which education systems possess the ability to endure crises, foster peace, and guarantee sustainable development in accordance with the Sustainable Development Goals. In essence, this paper advocates for a shared dedication to rethinking education in a way that goes beyond traditional boundaries, embracing a more inclusive, caring, and social justice-oriented approach to research, teaching, and learning. By contextualising the findings within the Southern African landscape and providing actionable recommendations, the article contributes to the development of resilient, equitable, and socially just education systems capable of withstanding the challenges posed by global crises.

References

- Ainscow, M. (2020). Inclusion and equity in education: Making sense of global challenges. *Prospects*, 49(3/4), 123–134. <https://link.springer.com/article/10.1007/s11125-020-09506-w>
- Batisai, K., Makhafola, K., & Maoba, P. (2022). Rethinking inclusion in higher education: Lessons for the South African academic space. *South African Journal of Higher Education*, 36(6), 210–230. <https://doi.org/10.20853/36-6-4758>
- Fraser, N. (2009). *Scales of justice: Reimagining political space in a globalizing world* (Vol. 31). Columbia University Press.
- Freire, P. (2005). *Pedagogy of the oppressed*. Continuum. (Original work published 1970)
- Freire, P. (2020). Pedagogy of the oppressed. In J. Karabel & A. H. Halsey (Eds.), *Toward a sociology of education* (pp. 374–386). Routledge.
- Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing*. Oxford University Press.
- Govender, K., Cowden, R. G., Nyamaruze, P., Armstrong, R. M., & Hatane, L. (2020). Beyond the disease: Contextualized implications of the COVID-19 pandemic for children and young people living in Eastern and Southern Africa. *Frontiers in Public Health*, 8, 568739. <http://dx.doi.org/10.3389/fpubh.2020.00504>
- Haelermans, C., Korthals, R., Jacobs, M., de Leeuw, S., Vermeulen, S., van Vugt, L., Aarts, B., Prokic-Breuer, T., Van der Velden, R., & van Wetten, S. (2022). Sharp increase in inequality in education in times of the COVID-19-pandemic. *PLOS One*, 17(2), e0261114. <http://dx.doi.org/10.1371/journal.pone.0261114>
- Menon, K., & Motala, S. (2022). Pandemic disruptions to access to higher education in South Africa: A dream deferred? *South African Journal of Higher Education*, 36(4), 47–65. <http://dx.doi.org/10.20853/36-4-5188>
- Nikolaidis, P., Ismail, M., Shuib, L., Khan, S., & Dhiman, G. (2022). Predicting student attrition in higher education through the determinants of learning progress: A structural equation modelling approach. *Sustainability*, 14(20), 13584. <https://doi.org/10.3390/su142013584>
- Ojo, E., & Lorenzini, E. (2021). Global higher education beyond pandemics in the future of uncertainties. *Texto & Contexto-Enfermagem*, 30(e20210101), 1–4. <https://doi.org/https://doi.org/10.1590/1980-265X-tce-2021-0101>
- Ojo, E., & Onwuegbuzie, A. J. (2020). University life in an era of disruption of COVID-19: A meta-methods and multi-mixed methods research study of perceptions and attitudes of South African students. *International Journal of Multiple Research Approaches*, 12(1), 20–55. <http://dx.doi.org/10.29034/ijmra.v12n1editorial3>
- Ojo, E. O., Onwuegbuzie, A. J., Bergsteedt, B. J., Adams, S. P., Crowley, T., & Burger, A. (2023). A meta-methods analysis of academics' challenges affecting research productivity during COVID-19: Insights from a South African university. *Journal of Higher Education Theory and Practice*, 23(5), 27–45. <https://doi.org/10.33423/jhetp.v23i5.5923>

- Rudling, E. S., Emery, S., Shelley, B., Riele, K. T., Woodroffe, J., & Brown, N. (2023). *Education and equity in times of crisis: Learning, engagement and support*. Springer.
- Swart, L.-A., Taliep, N., Ismail, G., & van Niekerk, A. (2022). The converging influence of social, economic and psychological factors on public responsiveness to the COVID-19 pandemic in South Africa. *BMC Public Health*, 22, 1451. <https://doi.org/10.1186/s12889-022-13845-y>
- UNESCO. (2020, April 29). *1.3 billion learners are still affected by school or university closures, as educational institutions start reopening around the world, says UNESCO*. <https://www.unesco.org/en/articles/13-billion-learners-are-still-affected-school-or-university-closures-educational-institutions-start>
- World Food Programme. (2022, September 16). *A generation at risk: Nearly half of global food crisis hungry are children, say WFP, African Union Development Agency NEPAD, The Education Commission and education partners*. <https://www.wfp.org/news/generation-risk-nearly-half-global-food-crisis-hungry-are-children-say-wfp-african-union>

Notes on the author

Emmanuel Ojo is an associate professor and the deputy head of the School of Education at the University of the Witwatersrand in South Africa.

Address for correspondence

Emmanuel.Ojo@wits.ac.za

Crises and education policymaking for social justice: Choices, constraints and commitments

Yusuf Sayed
Cambridge University

Abstract

This paper threads together reflections in recent years regarding crises and education policy choices and choice-making, particularly during the COVID-19 pandemic. This is important because policy choices—and how, why, and under what conditions—speak volumes about the values held dear, hope for the future, and that which is valued in education systems. This paper shares how the pandemic specifically, and crises more generally, have shaped, altered, and reconfigured education policy and policymaking as these are understood. Particular attention is paid to teachers and their work and working conditions. The paper begins by establishing the context, after which policy, policymaking, and the nature of knowledge and science in policy formulation are explored. This is followed by a consideration of teacher professional development and the digitalisation and datafication of education, which the pandemic has intensified—two trends that predate the pandemic. The paper concludes by tentatively outlining an alternative, transformative, social justice agenda.

Keywords: education policy, education crises, education technology, teachers, SDGs, education equity

Sayed, Y. (2024). Crises and education policymaking for social justice: Choices, constraints and commitments. *Southern African Review of Education*, 29(1), 41–61.

Introduction

This paper threads together reflection in recent years regarding crises and education policy choices and choice making, particularly during the COVID-19 pandemic.¹ This is important as policy choices—and how, why, and under what conditions—speak volumes about the values held dear, hope for the future, and that which is valued in education systems. This paper shares how the pandemic specifically, and crises more generally, have shaped, altered, and reconfigured education policy and policymaking as these are understood. Particular attention is paid to teachers and their work and working conditions. The paper begins by establishing the context, after which policy, policymaking, and the nature of knowledge and science in policy formulation are explored. This is followed by a consideration of teacher professional development and the digitalisation and datafication of education, which the pandemic has intensified—two trends that predate the pandemic. The paper concludes by, tentatively outlining an alternative, transformative, social justice agenda.

For the purposes of the paper, a *crisis* is understood as,

Endemic to capitalism . . . founded on particular modes and relations of production structurally prone to negative rupturing events and cyclical instability. Yet, from crises, synthesis and potential for fundamental social change also emerge. Crisis compels a search for alternatives in response to an unstable equilibrium, resulting in possibilities that can be positive and/or negative in their effects. (Sayed et al., 2021, p. 11)

Crises, interlocking and inter-relational, include issues relating to the planet, people, prosperity, and peace as the Sustainable Development Goals agenda captures. Multiple crises, as argued later, are driven by unequal social and economic relationships in society, and models of economic growth that are inadequately inclusive, enriching only a few at the expense of many. Inequality, as this paper will argue, is both a cause and consequence of crises if not managed adequately and justly.

The context of this paper is the COVID-19 pandemic, which began in late 2019, its widespread transmission intensifying in early 2020. By about March 2020, lockdown was the common policy response to the pandemic. The initial period, a period of scientific uncertainty and un-/under-preparedness, resulted in states deploying emergency regulations to abrogate to governments' full, total, and ultimate authority over society. Full lockdowns in 2020 lasted from six to 12 months in most countries. In 2021 and early 2022, global responses oscillated between intermittent lockdowns (full or partial) and controlled lifting of restrictions, depending on the severity of infection, described as “waves” of infection. At the height of the pandemic in mid-April 2020, 1.725 billion students worldwide were subject to school closures—about 99% of the world's student population (UNESCO, 2020). This absolute and total closure of schools was phenomenal in scope and scale, having not been witnessed since the World Wars.

¹ I am grateful for the research assistance of Ms Aditi Sehrawat, and for my colleagues, Professors Ahmed and van Niekerk, for their advice.

Today, whilst it is arguable that the imminent crisis of COVID-19 has passed, the reality is, as recent events in India show, for example, COVID-19 still lingers and its effects are still felt. As this paper argues, crises are an endemic part of society.

Unfolding of the pandemic and policy-making processes and choices: Policy exceptionalism, policy vacuum, and the politics of forgetting

The COVID-19 panic was simultaneous to the Black Lives Matter movement after the brutal killing of George Floyd in the USA. It was also simultaneous to calls for the decolonisation of education and higher education occurring in diverse national contexts. Noting these protest movements is important, partly to underscore the point that the COVID-19 pandemic intersected and overlapped with protests against systems of inequality and privilege. And that the COVID-19 pandemic, as Ahmed et al. (2021) and Sayed et al. (2021) argued, intensified existing societal and education inequities. The policy exceptionalism afforded the COVID-19 pandemic seems misplaced given that, at the most basic level, it mirrored historic and contemporary structural and societal fault lines. But the pandemic succeeded in displacing policy attention from social protest because its effects were pervasive and impacted the middle classes who often control societal policy decision-making (Ahmed et al., 2021; Sayed et al., 2021). Policy exceptionalism to the crisis was reflected in a series of hasty education policy choices, including emergency modes of education delivery. Whilst this may initially have been an understandable response, the state of un- and under-preparedness is striking for several reasons.

First, crises are not novel or unique phenomena in education. The field of education in emergency and refugee studies points to the protracted nature of uncertainty, instability, and disruption. Learning from such experiences can and should inform moments of short-term and intensive crisis response and mitigation interventions. Yet this is not the case. The experiences of education exclusion, of being locked out of educational opportunities for people in conflict contexts—internally displaced populations, migrants, marginalised groups, and oppressed people—are generally not foregrounded in policymaking and have certainly not received due policy attention. This reflects what I call “policy nimbyism” and “self-aggrandising self-interest,” in which the policy imagination is only animated when it affects the middle class, the privileged, and the wealthy. The lives of the impoverished and marginalised carry less policy currency in policy decisions.

Second, policy exceptionalism—ignoring lessons from other crises and experiences of exclusion—presumes a policy vacuum and as such creates policies anew and afresh. A flurry of new policy edicts and pronouncements as short-term emergency measures, made in haste, reveal the fragility of education policy thinking and its thin conceptual veneer. An example of this would be policy decisions about high-stakes assessment. Unable to centrally administer external national school-leaving examinations, many states used teacher- and school-based assessments to certify learning and accredit progression. This short-term policy measure was a positive step in exploring

alternative forms of assessment and validating teacher knowledge in assessing learners. Yet almost immediately, the measure was rescinded post COVID, reinstating familiar tropes about the inadequacies of teacher and school assessment. The assessment policy seesaw occurred without any meaningful engagement about the merits of external versus internal assessments. This return to “normal” belied arguments about “building back better,” and opportunities for policy reflection, which the pandemic opened.

Third, policymaking during COVID-19 invoked an emergency, resulting in policy stasis and policy displacement, which assumed multiple forms including suspending, deprioritising, and delegitimising existing programmes and interventions. This form of epistemic policy violence was described by Sayed et al. (2021, p. 13) as follows:

Violence is also observed in the way in which COVID-19 policy attention displaced and marginalised other pre-existing crises, such as TB programmes, as well as child vaccination programmes and school feeding programmes. An important consequence of the hegemony of the COVID-19 pandemic is, therefore, the way in which it has exacerbated other crises.

Displacement, extreme poverty, inequality, and conflict are arguably much larger global crises than the COVID-19 pandemic. This is not to suggest a ranking of misery. Instead, it is to signal the need to see crises in an inter-relational and inter-sectional policy manner.

Fourth, the COVID-19 pandemic revealed the fault lines of existing policy choices and the models of economic growth that are privileged. And in this sense, the COVID-19 pandemic was as much an unanticipated crisis as it was about political choices and political acts. This pandemic—as a political pivot for change—was glaringly obvious in one global political policy choice, which transcended the ideological hues of a national government. And that was this: financial support for those who were unable to work, for companies, and social grants for the impoverished. In South Africa, the national government awarded a Social Distress Relief Grant to those in need, a practice that continued post pandemic. In the UK, the most neo-liberal of governments gave furlough and social grants to those in need. The pandemic revealed assertive states, a far cry from the neo-liberal ideals of rolling back the state. The pandemic made it patently obvious that only states can act as guarantors of rights and have the political will to intervene. The resurfacing of the activist state belied claims that markets and the private sector best provide for and maximise collective social interest and needs. The private sector parasitically capitalised on state actions by taking on private contracts for aspects such as personal protective equipment. In many such instances, government support propped up the private sector, including salary support for employees (furlough schemes) and tax reductions. For example, in the Kingdom of Saudi Arabia, according to the International Monetary Fund (2021), the government allocated SAR 70 billion (\$18.7 billion or 2.7% of GDP) for the private sector in 2022, which included the suspension of “government tax payments, fees, and an increase in available financing through the National Development Fund.” This was the case for many countries of the Global North including Canada, the UK, and USA (International Monetary Fund, 2021).

Private sector support also included support specifically with the payment of staff salaries, for

example, in the Congo and Côte d'Ivoire (Privatization in Education and Human Rights Consortium, 2022). This support was vital because many private schools retrenched teachers or reduced salaries as in India, where private schools paid teachers by the hour instead of their monthly salaries or in Kenya, where Bridge International Academies sent staff home with only 10% pay, or hiked fees as in the private schools of India, despite government guidelines (Privatization in Education and Human Rights Consortium, 2022). These examples of support provided by the state to the private sector reveal the frailty of the view that the private sector can be a trusted social sector provisioner. The reality is that in all instances of market and private sector failure, as this crisis revealed, the state is *always* the guarantor of citizens' first- and second-order political and socio-economic rights.

Fifth, the pandemic, as a series of moments of policymaking, revealed the tension between national self-interest and global solidarity. Sayed et al. (2021) noted how most if not all governments retreated into somewhat nationalistic and jingoistic populist responses, securing borders and prioritising vaccine distribution, nationally. Yet, the pandemic needed global solidarity, and globally coordinated actions, the global sharing of knowledge about vaccines and vaccine distribution. But far too often, ethno-nationalism stunted global coordination in the pandemic, which was global in scope, scale, coverage, and impact.

The pandemic—interlocking, intersecting, and inter-relational—is a portal to understanding the nature of policy and decision-making and the production of knowledge and truth, as discussed in the next section.

Science, knowledge, and evidence in policymaking

The COVID-19 pandemic illustrated the importance of knowledge for understanding the epidemiology of the disease and its transmission as well as managing its social, economic, and health effects. States turned to science and scientists for advice. Around the world, most, if not all, countries established advisory bodies and councils for guidance. Yet, it was actually a very particular group of scientists and specific knowledge regarded as important.

Of the scientists represented in advisory committees, particular fields were privileged. First, understandably, were virologists, epidemiologists, and vaccine specialists. Second, were behavioural scientists and, to a lesser extent, economists. Policy decisions for managing the impact of COVID-19 on the social sector were initially in the hands of “knowledge experts” with little or no experience, and painfully little understanding, of education. Consequently, teachers' experiences and expertise were discounted in the formulation of policies about, for example, school opening or closing, curriculum trimming, and alternative forms of assessment (Sayed et al., 2021). Teachers were not consulted about how to manage the effects of the pandemic; rather, trust in the hard sciences and particular forms of scientific knowledge were legitimated as the basis of social organisation and social being.

To illustrate, let's look closely at South Africa. In the initial phase, the Ministerial Advisory Committee advised full lockdown, paying little attention to its social repercussions. Little consideration was given to the impact of total lockdown on hunger and poverty, as the lockdown prevented young children from accessing their school feeding scheme. Later, the very same committee and in particular, a group of paediatric medical experts, advocated for opening the schools by following guidelines of social distancing, hand washing, and mask-wearing. Whilst this seemed reasonable, teachers working in South African schools, particularly in schools serving the impoverished, would have raised the alarm that this form of semi-opening was not possible in schools with minimal or no sanitation, poor facilities, and cramped classrooms with no adequate means to socially distance. This very same group of experts, making a case for the reopening of schools, neglected to factor in teacher well-being or the personal situations of teachers with families impacted by the pandemic (Sayed et al., 2021). This illustrates the gap in policymaking, which discounts the expertise and knowledge of teachers, our “first responders” in education, on the ground. More aggravatingly, it ignores the agency of teachers, treating teachers as “inputs” rather than “keys” to effective, equitable, and quality learning.

The above illustrates that policymaking in education needs to value the expertise of teachers whose knowledge of context and of learners is crucial in evidence-based policymaking. In privileging a particular form of scientific knowledge and knowledge of particular groups, the state delegitimizes the knowledge of front-line workers whose expertise is crucial to policy choices. Further, this illustrates the importance of policy as judgement. Evidence, not always clear-cut or categorical, must be considered in the context of social, political, and economic imperatives. So, for example, evidence from epidemiologists and paediatric specialists about transmission must be considered in relation to social, political, and economic imperatives. Evidence about the state of schooling or about the effect on school feeding are no less important evidentiary concerns than evidence emanating from the hard sciences.

The notion of evidence and policy decision-making as judgement is necessary given that sometimes in cases of crisis policymaking, not all information is known. Policymaking often occurs in situations in which not all necessary knowledge is available. And knowledge can also be contradictory and can emphasise different social effects. For example, knowledge about transmission may highlight the need for closure whilst knowledge about impoverishment may highlight food insecurity and hunger accentuated by lockdown. Thus, knowledge and policy evidence must be gathered in relation to that which is regarded as valuable in society.

The idea of what is counted as “valid knowledge” was most apparent in discussions about learning loss and learning crisis. Much of the information was based on projected data about learning loss, as the vignettes below show. There was no real assessment of learning before or after. Thus, many of the claims about learning loss and learning crisis were based on the *likelihood* of how learners might perform in mathematics and literacy based on past assessments. Whilst this was understandable during the pandemic because learners could not be fully assessed, the idea of learning loss and learning crisis, when analysed, reveals key features of the construction of the

pandemic education discourse.² On one hand, the knowledge base of the learning crisis and learning poverty privileged a discourse that accorded pre-eminent status to mathematics and literacy. Other learning—such as social and emotional learning—was delegitimated and de-prioritised. Yet the crisis underscores the need for such learning and, in particular, learning competence about identifying with others nationally and globally. The nationalism that many considered chauvinistic, and the apparent prejudices that marked the pandemic, speak volumes about an education discourse that narrowly privileges competence in mathematics and literacy. On the other hand, the discursive construction about the crisis reveals a policy imaginary that speaks to deficit and loss and the particular construction of how learning loss was measured.

During the pandemic, scholars³ across the world articulated learning loss, and the political and methodological ways in which learning loss is constructed. Leaving aside the measurement of learning loss on which many policy choices were predicated, there is precious little discussion of learning gain. The key question raised by the pandemic should not just be what learners lost, but how learners gain and improve.

Some research suggests that the notion of loss during crises has been exaggerated, and that learners are gaining as much as they have lost by returning to school. This emerging evidence is significant because it speaks to the likelihood of teaching quality and effectiveness. This suggests that what matters is not only what is lost but what is gained through equitable and quality teaching. Framing the policy problem this way suggests that states should provide supportive teaching and learning environments and supportive professional development opportunities for teachers. Speaking of loss and crisis affords states the opportunity to construct teachers as the “problem” and the solution as tighter regulation and more scripted pedagogy to compensate for the “loss.”

Learning loss shapes the discourse of crisis in narrow human capital and economic terms. Discourses of crises invoke rates of returns in economic theory by accounting for education policy choices:

The costs of learning losses to lifetime productivity are significant. Andrabi, Daniels, and Das (2020) studied the impact on Pakistani students of 14 weeks of lost schooling after the 2005 earthquake. They estimate that learning deficits among these children may result in lifetime earnings losses of 15%. According to the ADB, losses to future productivity and lifetime earnings for affected students could be \$1.25 trillion for developing Asia, equivalent to 5.4% of the region’s 2020 GDP. (Aiyar, 2022, p. 2)

The production of knowledge and the use (and misuse) of evidence in policy reveals how crises

2 This is not a critique of the fact that learning was lost or the methodologies in measuring this per se, but how the idea becomes part of a particular discursive construction of education during crises.

3 One such article is by Soudien et al., in which they argued: “Our challenge was then to predict the mathematics scores for ‘TIMSS 2020.’ Given the unprecedented nature of the pandemic, the methodological uncertainties to estimate learning losses, the limited empirical data we have at our disposal and the little we know about how the curriculum recovery process took place. The methodological approach we took was to review other studies that predicted learning losses and speculated what the impact of COVID-19 on learning only in 2020 would be” (2022, p. 316).

such as the COVID-19 pandemic reflect what (and whose) knowledge is privileged and how the privileging of certain knowledge resonates in particular policy choices that constrict a potentially more radical and transformative education agenda. The next section extends this notion of crisis as stifling the flourishing of a more radical education agenda by considering teacher professional development and the digitalisation and datafication of education, which the pandemic has intensified.

Techno education: A solution looking for a problem?

COVID-19, it has been argued, ushered in new and innovative modes of teaching and teacher education, with some hailing this as the advent of the 4th Industrial Revolution with the realisation of the flipped classroom and the leveraging of technologies for teaching and learning. Whilst this may have been realised in some contexts under certain conditions, the extent to which the crisis has encouraged innovation is uncertain. First, what is regarded as a flipped classroom or innovative technologies in many cases, is simply sending of lessons and materials via technologies such as email, cloud, Zoom, or Microsoft Teams. Put differently, the approach remained very much the same—the medium changed. More fundamentally, in my earlier paper (Sayed et al., 2021), I spoke about how a focus on lesson delivery through technology in the homes of children ignored the importance of the sociality of learning. Schooling is more than the acquisition of content—it is also about learning to live with each other, learning about the other, and learning to be, which is about pedagogy as social, relational, and interactive. The pedagogical policy choices made during the pandemic not only displaced this element of education but also delegitimated concerns about well-being.

Second, the notion of the home as a site of learning reproduced normative assumptions of the family on which much education enterprise is founded. It is assumed that the site of home learning is that of a nuclear heterosexual family with one or both parents engaging with and supporting their child's learning. This assumption is simply unfounded and the middle-class nuclearism of this pedagogic approach is riven with the misplaced assumption of middle-class cultural capital as a universal norm, reinforced by existing education inequities. The pandemic education choice universalised middle-class specificity as the norm of universal provision.

Third, and perhaps of gravest concern, is how the pandemic has resulted in the datafication and digitisation of education, described as follows:

Techno-education images that privilege technology-driven learning alternatives. . . . Such approaches manifested early in the pandemic and suggested emergency responsive teaching as the imaginary, thus capturing the zeitgeist of the pandemic. In the context of education digitalisation, the door is flung open for large education companies and the growing intensification of educational corporatisation to control the architecture of the education enterprise and take ownership of content. . . . Techno-education as a solution to the crisis is evident across all contexts, albeit unevenly so. Techno-education as online learning has been firmly embedded in the provision of education as a response to the crisis, as well as a modality for future education provision in many countries. (Sayed

et al., 2021, pp. 14–15)

According to Li and Lalani (2020, para. 3), global school closures that were enforced directly as a result of the pandemic catapulted the rise of e-learning through various education technology (EdTech) interventions:

Even before COVID-19, there was already high growth and adoption in education technology, with global EdTech investments reaching US\$18.66 billion in 2019 and the overall market for online education projected to reach \$350 billion by 2025. Whether it is language apps, virtual tutoring, video conferencing tools, or online learning software, there has been a significant surge in usage since COVID-19.

As in the aftermath of Hurricane Katrina, the influence of the private sector increased and many services that were publicly provided are now managed by the private sector. Williamson and Hogan (2020, p. 2) noted the following in relation to education:

Major multinational technology corporations including Google, Microsoft and Amazon have experienced a huge surge in demand for their products and services due to their capacity to deliver solutions at international scale, at speed, and for free. Supported by multilateral policy influencing organisations and national government departments, these companies have integrated schools, teachers and students into their global cloud systems and online education platforms, raising the prospect of long-term dependencies of public education institutions on private technology infrastructures. Social media platforms including YouTube and TikTok have also sought to grow their presence in education through content creation partnerships for students learning at home, thereby increasing their revenue through attracting advertisers and turning education into a vehicle for the commercial advertising industry.

Educational digitisation is of concern for several reasons. First, it privatises educational content and knowledge, which is now in the hands of tech companies and app developers. Teachers' agential space to enact and mediate the curriculum in their classrooms is curtailed, if not entirely prohibited. The epistemic expertise of teachers is displaced in favour of proprietary ownership of content. The digitisation of education content and pedagogy discounts teacher expertise and reflexivity. Moreover, the privatised development of content stands outside public scrutiny; what is valued and valuable in education is determined by social enterprises and companies that stand outside the public education sphere and whose main motivation is profit. Finally, much of what is developed as content (as shown in Tables A1–A5 in Appendix 1) is limited and restricted.

Specifically, the appendix on EdTech^{4,5} social enterprise companies operating in sub-Saharan

4 Source of the database is <https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhRGOHZgazHHY5>, from the website, Airtable. The author of this resource is EdTech Hub, a global non-profit partnership founded in 2019 and sponsored by the UK FCDO, Bill & Melinda Gates Foundation, UNICEF, and the World Bank. They work with a consortium of six partners from public, private, academic, and non-profit sectors. EdTech Hub (2020) stated that its goal is to empower people by giving them the evidence they need to make decisions about technology in education.

5 The database identifies a total of 210 EdTech organisations. However, the paper refers to these organisations as social enterprise companies. The database only has some details on each organisation. The mentioned organisations operate in one or more sub-Saharan African countries.

Africa reveal several points of interest.

1. Most EdTech social enterprise companies focus on a narrow and restricted range of content limited to literacy/numeracy and rarely on the affective, specifically, maths/numeracy and languages (English, literacy, and computers). Again, less emphasis is placed on affective learning (Table A1⁶).
2. Most EdTech social enterprise companies offer proprietary software (140) or license-restricted sharing (70). Open-source software is only offered by 44 social enterprise companies and for restricted content (see Table A2⁷).
3. Most EdTech social enterprise companies operate in a limited number of countries in Africa—specifically Kenya, South Africa, Nigeria, and Uganda—which are the dominant African countries (see Table A3⁸).
4. Based on the limited information provided in the database (see Table A4⁹), most EdTech social enterprise companies partner with international agencies or global-scale private enterprises actively investing in education compared to local agencies of Africa. Microsoft, Google, Mastercard Foundation, and UNICEF are major partnering international agencies.
5. Most EdTech social enterprise company offerings are in English (197/203), with only limited provision in African languages, typically Swahili and Somali (see Table A5¹⁰).

Analysis of the work of EdTech social enterprise companies reveals that digitisation, as the promised new and innovative form of learning, is restrictive and fairly tightly controlled. The offerings marginalise a holistic, equitable, and broad notion of education that affirms identity, ownership, and control to countries and professionals.

6 Out of 210 data available for 200 EdTech social enterprise companies, math and numeracy (164/200) are catered by a maximum of them, followed by science (99), literacy (92) and computers (84). The paper argues that there is less emphasis on affective learning, which could be understood as life skills such as well-being, psychosocial support, soft and human skills. These skills are only catered to by one or two enterprises. Other skills that could be argued as affective learning are those required in the present century, such as sustainability, including energy and nature, which is also catered to by only a handful. It is important to note that an enterprise may be involved with one or more subjects or skills.

7 Data available for 192 EdTech social enterprise companies. The ownership of their products may be of a single type or in sharing, too. Three types of product ownership mentioned are proprietary source, open source, and shared (in some conditions, e.g., CC NC license). Maximum EdTech enterprise companies have only proprietary sources (91), followed by only open sources (22), similar to only licensed-restricted products (22); 57/192 EdTech enterprise companies have products in one or more types of sharing.

8 Data are available for 202 EdTech social enterprise companies: 71 of these operate in Kenya, followed by South Africa (61), Nigeria (60), and Uganda (50). The least developed countries of Africa, mainly from central/middle African regions such as Angola, Cameroon, Chad, Sao Tome and Principe, have only a few enterprises operating in them (see list of least developed countries in Africa—<https://unctad.org/topic/least-developed-countries/list>).

9 Data are available only from 146 EdTech social enterprise companies. The provided data are also limited.

10 Data are available for only 203 EdTech social enterprise companies: 94 of these enterprises target only one Indo-European language, English. English alone, and also in addition to other languages, is targeted by 197/203 enterprises. Indigenous African languages such as Swahili are not even a target language for one quarter of the enterprises. Arabic, an official language of 22 African countries, is targeted by only 23 of the enterprises. Somali, one of the most dominating languages spoken widely across the Horn of Africa is catered to by only eight of these EdTech social enterprise companies.

Unpacking discourses of loss, crisis, deficit, and pathology: Weakening public education

Responses to the pandemic have been many and multiple. They have brought forth myriad ideas and suggestions about what could or should have been done. Responses stem from what I call “exuberant optimism” rooted in a belief that the future will be personalised education and flipped classrooms (The Economist, 2022), and that “building back better” is about teachers as facilitators who promote learner-centred education. As *The Economist’s* impact report noted (2022, p. 5),

We find that Covid-19 has created an unprecedented occasion to re-think education. Already, schools are being forced to experiment with methods and techniques that in many ways align with personalised learning. Educators are overwhelmingly positive about its potential value, and investment and implementation is set to increase.

Yet, later in the same article, it was noted that:

[The] personalised learning spectrum stretches from “teacher-led” approaches to more radical “student-led” methods. Educators tend to favour the teacher-led approach. . . . Students and parents are less convinced than teachers of the benefits of personalised learning. . . . Among surveyed educators, 87% think that teachers are “very supportive” of introducing personalised learning into the classroom. But only 26% say the same of parents and just 8% the same of students (although a majority say both parents and students are “somewhat supportive”). (The Economist, 2022, p. 7)

But there is also a prevalent discourse of loss, crisis, deficit, and pathology. Positioning the crisis this way intensified and consolidated several education trends that arguably pre-date the pandemic.

First is the increasing regulation and fencing in of teacher autonomy and agency. Teachers—demeaned by a narrative as lacking in competence and skills—are provided scripted professional development, scripted pedagogy, scripted teacher standards, and a pedagogy of “teaching at the right level.” In this, the ideal of a teacher as a reflexive practitioner is displaced in favour of a normative view of the competent teacher whose performance is judged by a limited range of performance measures. The circumscribing of teacher agency in the current context results in an ostensible need to “wash out” the effects of initial teacher education; to coach a teacher to perform rather than empower; to develop governance mechanisms and tools for managing performance including prizes, incentives, and performance rewards; and to increase the use of observation as surveillance.

Second, a discourse of education pathology during crises is underpinned by the idea that teachers are failures: the problem, the reason for the learning crisis. From this perspective, teachers require tight regulation, as noted above. Invariably, they are deemed as lacking in skills and consequently de-professionalised with reduced agency.

Third, is the increasing mediation of teacher, parental, and community engagement through the process of datafication, which is a 21st-century intensification of the audit culture of the 1970s.

During the COVID-19 pandemic, big data and surveillance were understandably key to managing the crisis. The OECD (2020), like many other agencies, hailed the use of big data across social sectors, including post-COVID education. But datafication reduces meaningful engagement and dialogue between teachers, parents, and local communities to routine, ritualistic, and symbolic reporting. An example of this datafication is how assessment results are used to regulate the work of teachers. Linking datafication, the rise of digital assessments, and big data, Wyatt-Smith et al. (2019) lamented the implications this has on the work and identities of teachers. Specifically, they indicated that by shifting the control on curriculum, pedagogy, and assessments from the teachers to “test constructors, psychometricians, data and learning analytics and policy makers” (Wyatt-Smith et al., 2019, p. 3), the datafication of assessments serve to undermine the professional judgement of teachers and replace it with “insights from learning analytics” (2019, p. 4). Combined with the emergence and intensification of the audit culture this datafication, by affecting their work, leads to the development of “datafied teachers and datafied students” (Lewis & Holloway, 2019 cited in Wyatt-Smith et al., 2019, p. 4). Holloway and Lewis drew attention to the increased pressure on teachers to use “numerical data . . . evaluative tools . . . and prescriptive definitions of ‘what works’” to guide their professional pedagogical decisions (2021, p. 154). Narrowing what counts as learning and measurement of learning, combined with an audit culture, undermines teacher professionalism and results in increased regulation of teachers’ work.

In these ways, with the pandemic framed within a discourse of learning loss, the ideas of emergency modes of education provision and teacher deficit exacerbate a culture of pedagogic performativity.

Mapping a progressive public, resilient, and sustainable education system: From shock doctrine to a progressive agenda

Beyond the excessive politics of unbridled exuberance and politics of despair, it is possible to chart a more progressive, radical, social justice agenda. In an earlier paper, Sayed et al. (2021) noted the green shoots of communities organising a different value system founded on ethics of care, trust, and empathy. These initiatives harnessed community cultural and political capital. In South Africa, local efforts and community organisations distributed much needed food parcels, provided tutorial support for learners, and supplied access to technology. Yet these efforts were small, localised, and limited given the grand scale of need. While the key challenge is to harness and coordinate such efforts, only progressive states will do this. The state is best placed to coordinate and scale such efforts. The starting point for a progressive social justice agenda is a state committed to equity and to defending the right to education as a public good. The COVID-19 crisis and its effects on education systems have once again revealed the importance of stable, well-funded, free, public, and inclusive education systems that meet human rights standards, but have shown that this cannot be achieved without public authorities.

A state, no matter how benign or progressive, requires active citizens and teachers as agentic beings. According to Ellis et al. (2020, p. 571):

The leaders of ITE we interviewed powerfully demonstrated the essentially human capability of creating a future through agentic transformations of an existing situation, in this case a particularly dire one. How can the innovative stance we identified be retained and nurtured in the teacher education community in the years that follow this crisis.

Strong state steering founded on the principles of cooperative governance and teacher empowerment can, and should, build resilient and equitable education systems.

As a United Nations policy brief (2020, p. 3) noted:

Strengthening the resilience of education systems enables countries to respond to the immediate challenges of safely reopening schools and positions them to better cope with future crises. In this regard, governments could consider the following: focus on equity and inclusion; reinforce capacities for risk management, at all levels.

But resilience should not be defined (as it too often is in the case of conflict) as the ability of individuals, organisations, and movements to withstand and absorb any and all challenges, to rise again. This notion of resilience as recovery and adaptation after crises fails to recognise that future threats and consequential policy choices cannot be fully predicted or understood (the unknowns). So truly resilient education systems seek not to withstand or protect or prepare, but to create adaptable and agile systems. More fundamentally, building resilient education systems as part of a hard reset means tackling the inter-relational and interlocking nature of crises, and addressing their underlying causes through systemic education reform efforts.

Resilient education systems ensure that education financing and education budgets are prioritised. Austerity measures, post crisis, often result in reductions in social sector spending. Protecting social sector spending and education budgets post crisis is crucial to building resilient and just education systems.

Teachers are integral to building resilient education systems because they are essential to realising equitable and effective teaching and learning. Prioritising teacher needs and well-being is crucial to *any* future education agenda, post crisis, post pandemic. Darling-Hammond et al. (2020), in their 10-point education strategy for learning during and after COVID, underscored the importance of teachers, arguing that preparing educators with the skills and competencies for modified forms of schooling (they refer to this as “reinventing schools”) is vital. Darling-Hammond and Hyler (2020) also underscored the necessity of providing teachers with quality teacher professional development, opportunities to collaborate, and mentoring support. This is how to empower and capacitate teachers. Yet, in most proposals for a post-COVID, post-crisis recovery, deafening silence surrounds teacher involvement in policymaking. Agentic transformation and innovation are not just about teachers’ work but also about their right to social dialogue and meaningful involvement in decision-making.

The problem with responses to crises such as the COVID-19 pandemic, and to its immediate and future effects, is that this is not only about what is known or about what is not known, but about what has not been done or what could or should have been done. Part of the answer to the problem

of policy inertia is the lack of political will amongst governments and policy elites, because most crises are silent and unnoticed given that they impact the marginalised and impoverished much more than the powerful policy elites.

Moving towards a transformative social justice agenda, as proposed in this paper, requires the following necessary, but not entirely sufficient, conditions for social justice education.

1. A commitment to education and other rights as public, collective, global, and social goods for which the state is the guarantor and for which states should take responsibility for provision.
2. A commitment to developing progressive education policies that are inclusively generated, value all knowledge (particularly those of front-line implementers), and suited to each context.
3. Recognition of teacher voices in official policy level discussion. Outside the networks of influence in middle-class contexts, teachers are core to policy determination during crises. The marginalisation of teacher voices and context-specific expertise forecloses opportunities to nuance the generic formulations and expectations of teacher agency and practice in official policy statements.
4. A policy approach that will centralise planning through the state but give local organisations, social movements, and grassroots implementers the freedom to act.
5. A commitment to developing common education knowledge and open public ownership, particularly for software and technology platforms and learning programmes.
6. Joined-up inter- and intra-government education action, including, for example, joined-up policy actions for synergising the regulation and management of the telecommunications industry on which education relied heavily during the pandemic.
7. Equity-focused education policy choices and actions as part of systemic and comprehensive societal reform and transformation efforts, which include inclusive, equitable, and sustainable growth paradigms (that stand in contradistinction to programmes of economic austerity), the extension and deepening of democracy in society, and the protection and promotion of first- and second-order citizens' rights—which are all part of a holistic, transformative agenda.

Core to a social justice education policy agenda, is commitment to education as a public good, and which promotes solidaristic commitment and collectivism. Between the threat and violence wrought by a crisis and the possibility of a future that is different—and better—lies the ravages of a terrain of contentious policy choices, decisions, and actions. It is from this terrain of education policy struggles that a harder reset will emerge, realising a just, equitable, egalitarian, humanistic, resilient, and empowering education system.

References

- Ahmed, R., Sayed, Y., Nell, J., Somhlaba, N. Z., & Karriem, A. (2021). Poverty, protests and pandemics: What can we learn from community resilience? *South African Journal of Psychology*, 51(4), 478–480. <https://doi.org/10.1177/00812463211047669>
- Aiyar, Y. (2022). The education pandemic: Learning losses from COVID-19 will cost us our future unless we spend on Education. *Finance & Development Magazine*, March. <https://www.imf.org/en/Publications/fandd/issues/2022/03/Education-pandemic-Aiyar>
- Darling-Hammond, L., & Hyler, M. E. (2020). Preparing educators for the time of COVID . . . and beyond. *European Journal of Teacher Education*, 43(8), 457–465. <http://dx.doi.org/10.1080/02619768.2020.1816961>
- Darling-Hammond, L., Schachner, A., Edgerton, A. K. (with Badrinarayan, A., Cardichon, J., Cookson, P. W. Jr., Griffith, M., Klevan, S., Maier, A., Martinez, M., Melnick, H., Truong, N., & Wojcikiewicz, S.). (2020). *Restarting and reinventing school: Learning in the times of COVID and beyond*. Learning Policy Institute.
- The Economist. (2022). *Getting personal: The future of education post COVID-19* (Economist impact report). https://impact.economist.com/perspectives/sites/default/files/getting_personal_the_future_of_education_post_covid19_final.pdf
- EdTech Hub. (2020). *EdTech companies in sub-Saharan Africa*. Airtable. <https://docs.edtechhub.org/lib/64SY5VBN>
- Ellis, V., Steadman, S., & Mao, Q. (2020). “Come to a screeching halt”: Can change in teacher education during the COVID-19 pandemic be seen as innovation? *European Journal of Teacher Education*, 43(4), 559–572. <https://doi.org/10.1080/02619768.2020.1821186>
- Holloway, J., & Lewis, S. (2021). Datafication and surveillance capitalism: The Texas teacher evaluation and support system (T-TESS). In C. Wyatt-Smith, B. Lingard, & E. Heck (Eds.), *Digital disruption in teaching and testing assessments, big data, and the transformation of schooling* (1st ed., pp. 152–165). Routledge.
- International Monetary Fund. (2021). *Policy responses to COVID-19*. <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#SA>
- Li, C., & Lalani, F. (2020). *The COVID-19 pandemic has changed education forever. This is how*. World Economic Forum. <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>
- OECD. (2020). *Philanthropy and education: Education giving in the midst of COVID-19*. https://www.oecd.org/dev/NetFWD_Covid-EDU_Study.pdf
- Privatization in Education and Human Rights Consortium. (2022, January 28). *Re-building resilient education systems: three lessons on the privatisation of education emerging from the COVID-19 pandemic*. <https://tinyurl.com/4vz8a8f8>

- Sayed, Y., Cooper, A., & John, M. V. (2021). Crises and disruptions: Educational reflections, (re)imaginings, and (re)vitalization. *Journal of Education*, 84, 9–30.
<http://dx.doi.org/10.17159/2520-9868/i84a01>
- Soudien, C., Reddy, V., & Harvey, J. (2022). The impact of COVID-19 on a fragile education system: The case of South Africa. In F. M. Reimers (Ed.), *Primary and secondary education during Covid-19* (pp. 303–325). Springer.
- UNESCO. (2020). *School closure caused by Coronavirus (Covid-19)*.
<https://en.unesco.org/covid19/educationresponse>
- United Nations. (2020, August). *Policy brief: Education during COVID-19 and beyond*.
<https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond>
- Williamson, B., & Hogan, A. (2020). *Commercialisation and privatisation in/of education in the context of Covid-19*. Education International.
<https://www.ei-ie.org/en/item/25251:commercialisation-and-privatisation-inof-education-in-the-context-of-covid-19>
- Wyatt-Smith, C., Lingard, B., & Heck, E. (2019). *Digital learning assessments and big data: Implications for teacher professionalism* (Education research and foresight working paper). UNESCO.
<https://unesdoc.unesco.org/ark:/48223/pf0000370940/PDF/370940eng.pdf.multi>

Notes on the author

Yusuf Sayed is Professor, Global Education Policy and Equity in the Faculty of Education at the University of Cambridge.

Address for correspondence

yms24@cam.ac.uk

Appendix 1

Analysis of EdTech social enterprise companies¹¹ operating in sub-Saharan Africa

Table A1

Number of Ed-tech social enterprise companies catering to the below-mentioned subjects or skills-

Subject Or Skills	Science	Math + Numeracy (non-Math)	Literacy & Languages	Social Science	21st-century skills	Life skills
No. of Ed-Tech social enterprises/ companies catering to them	99	100+ 64 = 164	Literacy#: 92 Writing: 1 English: 87 Foreign Languages: 1 Local Language: 55	Civics: 40 Social: 70 History: 1 Geography: 1	Computer: 84 Financial and Business: 64 Robotics: 1 Sustainability including Energy and Nature: 21 Media competency usable in various areas and subjects: 1 Entrepreneurship: 1	Health: 41 Agriculture: 34 Wellbeing (yoga): 1 Leadership: 2 Strategic Plans: 1 Soft skill training and Artisan training: 1 Culturally Appropriate Positive Guidance: 1 Psychosocial support: 2 Cognitive skills: 1 Communication skills; behaviour change and advocacy in sexual and reproductive health and rights: 1 Counselling: 1 Career and Mentorship: 1 Soft Skills/ Human Skills: 1

Sources:

<https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhrGOHZgazHHY5/> (EdTech Hub, 2020)

Notes:

- Total number of Ed-tech social enterprise companies = 210 (Data available for only 200)
- An Ed-tech social enterprise company may cater to one or more than one subjects/skills
- Math is distinguished from numeracy. The database identifies numeracy as non-math.
- [#]Literacy is mentioned separately from writing in the database. However, it does not mention reading or speech as a subject/skill catered by any organisation.
- Languages are distinguished from English/other languages in the database and are all also mentioned separately in the table.
- Subjects such as civics, social, history, and geography are categorised under social science for the paper.
- The database lists 21st-century skills separately. Although, the paper uses it as an umbrella term for various subjects and skills significant in the present century.
- In Table A1, various subjects/ skills from the database are clubbed together and listed under Life Skills. Although, all the mentioned subjects/skills are mentioned separately in the database.
- Details on the nature and content of any subject/skill are not mentioned in the database. Such as which foreign languages, local languages, nature of soft skills/ human skills, what counts as strategic plans, etc.
- Table A1 exclude subjects or skills related to pedagogy, trauma, primary school revision all subjects, ECCE, etc.

¹¹ The database refers to the EdTech companies as organisations. However, the paper refers to these organisations as EdTech social enterprise companies to magnify their social, economic, and educational dominance.

Table A2

Number of Ed Tech social enterprise companies' type of product ownership and/or sharing

Type of Product Ownership	Product as proprietary only	Open source only	Can be shared in certain conditions (CC NC License) only
	91	22	22
Sharing	Ed Tech Companies with more than one type of product sharing: 57		

Source:

<https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhRGOHZgazHHY5/> (EdTech Hub, 2020)

Notes:

- i) Total number of Ed-Tech social enterprise companies = 210 (Data available for only 192)
- ii) An Ed-Tech social enterprise company may have a single type of product ownership or more than one in sharing.

Table A3
EdTech social enterprise companies in sub-Saharan Africa

Africa Regions	Northern		Eastern		Central/Middle		Western		Southern	
Countries (No. of EdTech enterprises/companies operating in the country)	Algeria	3	Burundi	11	Angola	9	Benin	7	Botswana	14
	Egypt	3	Comoros	5	Cameroon	13	Burkina Faso	9	Lesotho	10
	Libya	2	Djibouti	7	Central African Republic	8	Cape Verde	2	Namibia	19
	Morocco	3	Ethiopia	20	Chad	8	Côte d'Ivoire	7	South Africa	61
	Sudan	12	Kenya	71	Congo Republic-Brazzaville	2	Gambia	10	Swaziland	3
	Tunisia	2	Madagascar	9	Democratic Republic of the Congo	12	Ghana	30		
	Western Sahara	2	Malawi	25	Equatorial Guinea	8	Guinea	7		
			Mauritius	11	Gabon	7	Guinea-Bissau	6		
			Mozambique	14	Sao Tome and Principe	2	Liberia	17		
			Eritrea	8			Mali	8		
			Rwanda	39			Mauritania	6		
			Seychelles	8			Niger	10		
			Somalia and Somaliland	12			Nigeria	60		
			South Sudan	12			Senegal	16		
			Tanzania	44			Sierra Leone	17		
			Uganda	50			Togo	7		
			Zambia	27						
			Zimbabwe	21						

Source

- a) https://nationsonline.org/oneworld/africa.htm#google_vignette (The website referred to list African countries as per their region)
b) <https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhRGOHZgazHHY5/> (EdTech Hub, 2020, for EdTech social enterprise companies and target countries of sub-Saharan Africa)

Notes

- i) Total number of EdTech social enterprise companies = 210 (data available for only 202).
ii) An EdTech social enterprise may target more than one country.

Table A4

Ed-tech social enterprise companies' partnership with major international agencies

International Agencies/ Private Enterprises	No. of Ed Tech Social Enterprise Companies Partnering with them
Microsoft	8
Google and its various apps/platforms, such as Google Classroom and Google Bolo	8
Mastercard Foundation	5
UNICEF	5
UNESCO	4
World Vision	3
CARE	3
Save the Children	3
World Bank	2
Intel	2
UNHCR	2
The Bill and Melinda Gates Foundation	2
UKAID (UK Aid Direct- UK Govt.)	2
DFID (Department of International Development- UK govt.)	2
Pratham	1
MIT	1
British Council	1
Amazon	1
Aga Khan Foundation	1

Source

<https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhRGOHZgazHHY5/> (EdTech Hub, 2020, EdTech social enterprise companies and partnering international agencies or private foreign enterprises)

Notes

i) Total number of EdTech social enterprise companies = 210 (data available for only 146. Even the available data are limited and vague).

ii) An EdTech social enterprise company may have more than one partner.

Table A5

Data on the languages the EdTech social enterprise companies target

Languages	No. of EdTech Social Enterprise Companies Targeting Them
English	197
French	36
Spanish	11
Portuguese	8
Urdu	5
Afrikaans [^]	4
Hindi	3
Bengali	2
Swahili*	48
Arabic**	23
Hausa***	12
Igbo****	11
Somali*****	8

Source

<https://airtable.com/app5ADyDQG7f2mBUK/shrWkzpnLTpjP2ip8/tblUhRGOHZgazHHY5/> (EdTech Hub, 2020, data on EdTech social enterprise companies and their target languages)

Notes

- i) Total number of EdTech social enterprise companies = 210 (target language data are available for only 203).
- ii) An EdTech social enterprise company may target more than one language.
- iii) The above-mentioned languages are highlighted in the paper as they are the main dominant languages in the database. However, there are other languages present in the database that are excluded from the paper.
- iv) [^] Originated from the 17th century Dutch, presently one of the official languages of South Africa (source: <https://www.britannica.com/event/Soweto-uprising>).
- v) * One of the major languages spoken in Africa.
- vi) ** Official language of 22 African countries (source: <https://www.worlddata.info/languages/arabic.php>).
- vii) *** Trade language, one of the most widespread in Central Africa and some parts of West Africa (source: <https://www.worlddata.info/languages/hausa.php>).
- viii) **** One of the largest languages of West Africa (source: <https://celt.indiana.edu/portal/Igbo/index.html#:~:text=Igbo%2C%20or%20Ibo%20%2C%20one%20of,the%20Niger%2DCongo%20language%20family>).
- ix) ***** Official language of Somalia and spoken in some parts of East Africa (source: <https://www.worlddata.info/languages/somali.php>).

The pandemic and the platformisation of education

Gurumurthy Kasinathan
IT for Change

Abstract

Technology (tech) in education is no panacea; rather, many educators feel it opens a Pandora's box with varied ills afflicting many aspects of education. By promoting the passive consumption of content, deskilling teachers, and diluting teacher and learner agency, tech use distorts content, pedagogy, and assessment processes and harms learner environments and teacher–student relationships. Tech in education (EdTech) can curb institutional autonomy and undercut the education system's ability to promote larger progressive societal aims. This, educators believe, has created a crisis in education. The COVID-19 pandemic significantly enhanced the role of tech in all sectors. EdTech also became widespread, setting up a tragedy. The EdTech crisis has been aggravated by the emergence of black box algorithms (artificial intelligence), which further dilute teacher agency and atomise teaching–learning processes, making teachers and students vulnerable to surveillance, data harvesting, and manipulation. This paper argues that the EdTech crisis is not inevitable, but a function of its political and pedagogical design. Public ownership and control are imperative for teachers to exercise their agency towards a meaningful pedagogic design of EdTech. If proprietary EdTech can be regulated and a public EdTech ecosystem (comprising public production, distribution, and appropriation of EdTech) seen as an integral part of the public provisioning of education, the crisis can be avoided. Free and open digital tech movements have been independently working to enable such public ownership, and this needs to be mainstreamed into EdTech. The paper provides the example of Kerala, a state in South India, which has developed a public EdTech ecosystem over the last two decades, enabling it to avert the EdTech crisis, and ensuring that it was less affected during the pandemic.

Keywords: public EdTech, teacher agency, platforms, EdTech, artificial intelligence, EdTech crisis

Kasinathan, G. (2024). The pandemic and the platformisation of education. *Southern African Review of Education*, 29(1), 62–83.

Historical perspective of technology

As a complex activity, education has always used various technologies. Information and communications technologies (ICTs), a subset of technologies that deal with information processing and communication processes, impact education widely and deeply because they are key to teaching and learning. Every successive ICT has transformed educational processes and systems. The invention of language ICT made formal education possible. Language is so foundational to education that all concept learning can be seen as learning the language of the discipline (Postman, 2009). The invention of script allowed asynchronous learning through texts, transcending space and time constraints for education. Print technologies enabled mass schooling; radio and TV have enabled mass instruction (and successful propaganda) through broadcast.

The digitisation of information has led to an information explosion and the access, creation, storage, and dissemination of data (in multiple formats—text, image, audio and video) has become cheaper and easier. This has created an *information society*. Digital networks have made communication cheaper and easier, creating a *network society* (Castells, 2010). *Digital society* and *digital economy* are now often used to signify society and economy.

Over this millennium, technology (tech) in education (EdTech)¹ has impacted the processes and structures of education; the brick-and-mortar education system is now seen as belonging to the obsolete industrial society paradigm (Gilbert, 2009). In this new information society paradigm, it is argued that learning need not be limited by space and time—it can happen anywhere and at any time, provided one has a digital device and connectivity. Where good teachers are unavailable or unwilling to go, tech can provide e-content directly to the learner, facilitate self-learning, and render the intermediary (teacher) unnecessary (Scherer, 2012). Learning resources and paths can be customised for each learner, enabling what is referred to as *personalised learning*. Tech can connect learners synchronously and asynchronously for peer learning and sharing. No wonder many tech enthusiasts, tech manufacturers, education administrators, and even teachers believe that EdTech is the biggest game changer in delivering quality education to all. Towards this, it is widely accepted that corporates must be allowed to provide EdTech services because only private sector innovation can produce tech for education. Education systems gravitate towards corporate entities like Alphabet and Microsoft for EdTech solutions. The education bureaucracy's exploration of EdTech usually begins by comparing the products of these and other corporations and then choosing what they consider most appropriate.

This paper argues that EdTech cannot replace the school or the teacher, but it can be appropriated to support progressive education. It can play a key role in teachers' continuing professional development (CPD), help prepare teachers for diverse contexts, and enable the development of professional learning communities for CPD. However, for this to happen, teachers need to exercise

1 In this paper, tech refers to digital tech and EdTech refers to digital tech in education, unless otherwise specified or apparent from the context.

their agency and actively design EdTech and its appropriation; to accomplish that, they need to become owners and stewards of tech instead of being passive users or consumers. Teachers have previously used ICT to mediate teaching, and EdTech needs to be no exception.

Controlling teachers through ICT

Each successive ICT has had greater potential to control educational processes. The education bureaucracy used the textbook ICT to control teachers (Kumar, 1988). EdTech can be used to constrain teachers' curricular flexibility given that school management may control the use of digital devices in schools, the content used through these devices, and access their digital trail (through CCTV monitoring or digital footprints in applications [apps]). Teachers can be clearly instructed to use given content for teaching to ensure uniform (teacher-proof) content and pedagogy across classes and schools. Many school franchisees already exercise this level of control over teachers. Such detailed prescription and optimisation of work behaviour through algorithmic management can be seen in an advanced form in the retail and logistics sectors (Hirth & Rhein, 2021), and threatens the future of teaching. EdTech can be used to control teachers and students by prescribing what must be taught, surveilling what is taught, and recording for posterity what has been taught. Such control affects teacher and learner agency, and limits teachers' ability to be sensitive to local contexts.

The mainstream EdTech model provides curricular content to the student, bypassing the teacher. Most EdTech apps aspire to make their interface "intelligent" by allowing the apps to understand the learners' proclivities (treating these as a proxy for their learning needs) and provide content that hooks learners. Such personalised learning using artificial intelligence (AI) is seen as an improvement over the typical classroom where the teacher uses the same content and pedagogy for all students irrespective of their backgrounds and needs.

However, personalised learning increasingly substitutes the teacher with the functions and content of the apps, which can deskill teachers and dilute their agency, adversely affecting learner development possibilities. No AI can match the natural intelligence of a capable and caring teacher because AI is a misnomer—algorithms do not possess intelligence but do an extremely efficient job of processing our digitised past to make predictions. Hence, its ability to customise a response is likely inferior to that of a capable and caring teacher who interacts with their students.

No technology today or in the foreseeable future can provide the tailored attention, encouragement, inspiration, or even the occasional scolding for students that dedicated adults can, and thus, attempts to use technology as a stand-in for capable instruction are bound to fail. (Toyama, 2011, para. 6)

A human's depth, variety, and consistency of authentic responses can never be equalled by algorithms.

Ownership defines control

Understanding *free* as a construct

Vendors of proprietary digital tools and platforms constrain teachers' right to modify digital artefacts, freely share them with others, or use them for posterity. Although these are often available "free" of cost, they only permit usage but not ownership of the artefact, which continues to be owned by the licensor. Digital artefacts are often offered gratis because the vendor makes money by selling user data to advertisers or through freemium models (where a basic version is offered for free, but a version with advanced features has license fees). Such products and platforms deprive us of the freedoms that we usually exercise while using other educational technologies—the freedom to study, make, modify, and share resources, and deploy the tech for posterity. The tech sector has hugely impacted our understanding of the word *free*, replacing its powerful political connotation (free as in freedom, e.g. India became free on 15 August 1947), with its economic connotation (free as in gratis; Gmail is free, we do not pay for it). This shift is significant to education, whose aim includes making us free (Friere, 2000).

Given that curriculum and pedagogy are core processes of education, schools and teachers must have the autonomy to decide how to create, customise, share, and use curricular resources. Hence, EdTech, which learners and teachers can access without any constraint to creating, modifying, and sharing the tools (apps) and content are essential. The Free Software Foundation, a non-profit organisation that globally supports the development of free software, explained that "free software is the software that grants the user the freedom to share, study, and modify it" (Garbade, 2020, para. 6). The term free should be used only for digital resources that provide us all these aforementioned freedoms; "free of cost" must be called gratis. Apps or content that are gratis but do not provide these freedoms are termed *freeware*. They can be taken away at any time and their terms of use can be unilaterally modified by the provider. Users have no recourse in such instances, whereas copies of free software can be installed by users without any constraints and can continue to be used, studied, modified, and shared for posterity.

The use of proprietary tech also creates vendor lock-ins because only the provider can maintain or support its use. Applications can disappear because the vendors close shop or decide against making them available on the same terms. When a vendor decides that it is no longer profitable to support a version of proprietary software, teachers or schools cannot do anything to continue using it. Thus, teachers can never be sure how long any software will be available to them. For instance, Microsoft withdrew support from its Windows XP platform, which was being used on thousands of desktops that could not be upgraded to the later versions of the operating system. Such avoidable but planned obsolescence forces institutions to invest in new hardware (Thadani, 2014).

A textbook or a blackboard is always available for teaching. However, tech licensed to be used only as per the vendor's decision makes the world of software an uncertain one. The inability to maintain, repair, or revise proprietary software reduces teachers to mere consumers of EdTech.

The loss of control can make it difficult for teachers to be serious users and rely on any digital app or platform.

The most significant difference between earlier ICTs used in education and contemporary EdTech is this ownership issue. While earlier ICTs could be owned by schools and teachers, and were usually so owned, allowing them to design their use based on their perceptions, perspectives, and priorities, mainstream EdTech is proprietary—the vendor (usually a for-profit company) decides its design and availability. It is proprietisation that makes EdTech harmful, posing a crisis; teachers and schools *must* have agency in designing the use of EdTech.

Perhaps the most powerful (and not emphasised enough) feature of tech is that replication costs are nil. This is one important reason why proprietary tech companies become huge, and are extremely profitable. Creating a public tech ecosystem would allow the benefits of this nil-replication-cost feature to enrich the public education system rather than support private profit. This requires the adoption and promotion of free and open tech.

Free and open-source software

Recognising the dangers of the proprietisation of tech, various programmes, movements, institutions, and networks have been developing free and open-source software (FOSS). Professor Richard Stallman (1983) initiated the free software movement in which thousands of software professionals collaborated globally to develop FOSS for universal use. Consequently, there are thousands of FOSS education apps. FOSS allows users to become full-fledged participants, giving them the freedom to not only use but also study, make copies for posterity, and modify and redistribute digital tools. Teachers can localise the software by translating its user interface into their languages. Thus, the enrichment of FOSS is not restricted to only its creator—anyone can contribute to its development and enhancement. This has practical significance, for instance, IT for Change (<https://itforchange.net/>), a Bengaluru-based organisation where the author works has contributed to creating Kannada and Hindi language interfaces for many FOSS apps.

Free software is, in spirit, owned by all because it can be created, maintained, or enhanced by any entity. Therefore, it can be seen as software of, by, and for the public. The movement from being users to owners, designers, and stewards of tech can make tech just another pedagogical resource for teachers. This movement can assuage apprehensions that teachers, educators, and education systems have about control over EdTech. It is a prerequisite to the question: “How can EdTech be pedagogically relevant and useful?” FOSS EdTech can be freely shared at nearly nil cost, allowing universal availability. This means a rich cornucopia of free digital resources could be available for every school and every teacher—who can then decide which of these they will use.

Visualising EdTech as a public resource also enables actors in education to freely articulate what tech is required to achieve the aims of education, instead of limiting it to what the market can provide profitably. Relevant tech aligning with education needs becomes the focus—not whether the tech will be profitable. Education is universally recognised as a fundamental right, so it cannot be a market good: access based on ability to pay. EdTech needs to be in line with the philosophy of

universalisation as a public service, producing and consuming publicly owned FOSS EdTech. FOSS EdTech may not necessarily be relevant or useful, and can be educationally useless or even harmful, in much the same way that proprietary EdTech can be useless or harmful. However, FOSS EdTech provides the required autonomy and space for the teacher and the school to explore ways it can be used meaningfully for achieving educational aims, escaping hype peddled by commercial interests.

The political and pedagogical aspects of EdTech design and deployment

Funding and ownership

The first political aspect of tech pertains to funding and ownership, which can be analysed across the following spectrum:

1. Public or public-aided open tech (government-funded and publicly owned).
2. Private not-for-profit open tech (funded by private not-for-profits and publicly owned).
3. Commercial open tech (funded by private for-profit and publicly owned).
4. Proprietary tech (mostly funded and owned by private for-profits, but can also be used by public institutions, and also can be not-for-profit).

The first three open tech options provide for public ownership of tech, enabling the teachers or schools to design and deploy without constraints, and we can term them part of public EdTech. The fourth option is the proprietary model, which constrains the freedoms of schools and teachers. The third option, in which the public tech is provided through services that are commercially charged, still does not constrain teachers' agency in principle because the tech can be modified and distributed freely and there is no vendor lock-in.

Control

The second political aspect of tech is related to the level of user control over it. Here, we can have centralised or decentralised/distributed tech design. While desktop-based tech infrastructure allows for decentralised program design, cloud-based architecture supports centralised design. The centralised model is vulnerable to unbridled data collection from schools, teachers, and students.

Federated models that allow for the principle of subsidiarity in tech control (maximising local control) are desirable, with minimal guidelines from the central hub for maintaining necessary coherence and alignment. For instance, the National Digital Education Architecture framework for EdTech, developed by the Indian Government recognises the value of a federated architecture for the platforms proposed for development for education (Ministry of Education, 2022).

Educators view small schools as having greater potential for progressive education than large-scale, franchisee schools subject to strong central control. A highly centralised government school system leads to disempowerment of schools, teachers, and local communities and a local government. EdTech can promote such centralisation. Federations of small schools can provide

possibilities for collaboration (through tech). EdTech, which is in itself implemented in a decentralised and networked mode, would be in philosophical alignment with networks of small schools and support their effective functioning.

Pedagogical design

The pedagogical design of EdTech is concerned with using it to enhance or dilute teachers' and learners' agency, which in turn enriches or impoverishes the teaching–learning environment. To make tech pedagogically more relevant, we must:

1. consider it as a vehicle for fostering teachers' and students' conversations, peer learning, and collaborations through digital networks, instead of a pipeline for one-way pushing of content, and
2. allow teachers and students to create and re-create materials and share, instead of merely consuming what has been made elsewhere (for example, interpreting and evaluating ChatGPT instead of just getting answers from it).

Using the technological pedagogical content knowledge framework (Mishra & Koehler, 2006), we can say that when EdTech understanding is agentially used to enhance pedagogical and content knowledge, and vice versa, the resultant pedagogic design will be best suited to meet the educational aims of that context. Most educators and education administrators tend to ignore the element of ownership. For instance, a recent policy brief on *Enhancing ICT Readiness of Schools in South Africa* (van Greunen et al., 2021) discussed a maturity model for EdTech use in schools, covering a wide variety of aspects including digital competencies, integration in teaching–learning, culture, and management of EdTech resources, but was silent on ownership and control. Some may believe that the public EdTech model is not feasible. However, creating a public EdTech ecosystem is integral and even foundational to creating the ethos for a public education system to succeed.

The platformisation of education

The foundation of the internet was laid through public investment in the USA. Indeed, a significant part of the research and development of modern technologies usually occurs through public funding. Yet, in the neo-liberal paradigm, the private sector uses the benefits of such innovations to privatise related services for their profit. For instance, ChatGPT was only developed by processing very large data sets that did not belong to its owners. A class-action lawsuit has been recently filed in the USA, alleging that the ChatGPT tool scraped data belonging to the public without their knowledge, let alone consent (Brittain, 2023). ChatGPT was originally developed by a not-for-profit entity, the OpenAI initiative. However, once its profit potential was established, Microsoft took direct control to drive its design and application for its profit.

It is taken for granted today that the not-for-profit sector (government and FOSS organisations and communities), or even the for-profit-free-and-open-source business entities, cannot produce tech for all; only the business sector can do it through a proprietary model of software production.

Under this model, the producer prevents the users from making copies of the software, using technological and legal means, even though replication at nil or marginal cost is one of the main advantages of tech. Technologically, the producer prevents replication by not releasing the source code, which can be replicated or even modified by users; only the object code, which cannot be modified, is released. Secondly, the producer releases the software under a restrictive license, legally preventing users from reading, modifying, or replicating the software. The user has only one freedom—to use the software. By preventing replication or modification, the producer forces each user to procure a separate license to use the software, enabling huge profits. For years, Bill Gates, the founder of Microsoft, was the richest person in the world thanks to the rental income from Microsoft Windows and Office proprietary software.

The tech sector has a much higher propensity to allow for monopolies or oligopolies due to the network effect (Stobierski, 2020). As the service acquires more users, it increases the value of the network, thereby attracting even more users. The widespread use of proprietary standards prevents interoperable competitive services. This perversely incentivises businesses, particularly start-ups, to indulge in all kinds of (mal)practices to acquire enough users to try and become a monopoly or oligopoly. Eventually, the business becomes “the” platform in that space, which all have to use. A platform is a large tech business (Big Tech) providing services that connect producers and consumers and seeks, over time, to determine the terms of engagement with both, which, as a monopoly or even an oligopoly, it can. Instagram, X, Google Search, and Amazon e-commerce are all platforms that dictate the terms to the producers and consumers of their services.

The profitability and domination of tech corporations are due to their being legally allowed to proprietise and license the same digital artefact to many, and collect rent from each—whereas free sharing would benefit all because the marginal cost of production of digital artefacts is nil. Alternate economic models (public investment, incentivising private for-profit and not-for-profit sectors) for FOSS production could result in higher social welfare gains, especially in the public sector and public services domains. For instance, the Unified Payment Interface developed in India is a public platform (the term *digital public good* is popular) that can be used to make a bank transfer or payment at no cost. The Indian Government has offered this platform to other countries.

A proprietary EdTech platform renders the teachers’ suppliers or receivers of content, and not agentic participants in the educational process—just as the Uber taxi driver can only decide to accept an offer made by the platform while the fare, passenger, and even the route are dictated by Uber. The driver and the passenger have no independent relationship and only relate through Uber, which keeps detailed records on both and harvests the data to generate intelligence and profits. The teachers’ and students’ roles would resemble that of the driver and passenger using Uber as the EdTech platform matures. Given that the teacher–learner relationship has a profound role in learning, platformisation will impoverish education.

In asynchronous learning programmes, where teachers and learners are not interacting, students learn by interacting with digital resources and activities. Once the platform acquires sufficient

content, the teachers' role as content suppliers will reduce. In a rote-learning-based education system, the provision and delivery of content tends to be a major activity in teaching, and EdTech platforms will easily take over that role. Teachers who mainly transmit content as teaching will find their jobs in peril.

In synchronous learning programmes where teachers and students interact directly, once the platform onboards a large number of teachers (similar to Uber onboarding a large number of drivers) for online interactions with students, the bargaining abilities of individual teachers will be reduced; the platform will then find it easier to dictate terms, making teachers vulnerable as gig workers. This online instruction model is susceptible to societal pressures of "cracking examinations." Hence, it will function as a coaching shop where possibilities of constructivist approaches to learning are negligible. In societies where education qualifications are seen primarily as a vehicle for employment and socio-economic mobility, the EdTech models will promote an environment where achievement in examinations is the main aim of education. These will increase competitive pressures on students.

EdTech platforms can also leverage parental insecurities (Dutta, 2015) about their ward's future, and persuade them that their incremental investment in online instruction can benefit their ward and enable socio-economic mobility. This is particularly possible given that digital offerings can be easily stratified—EdTech companies can create "just barely affordable" sachets of educational services for all strata. For instance, unscrupulous salespersons from BYJU'S, the Indian edupreneurial company, have exploited information asymmetries to make poor Indian parents subscribe to long-term educational products. The BYJU'S model also harms students; it can easily spread the infamy of the "suicide capital Kota"² across the country with the power of its digital reach (Kasinathan & Dasarathy, 2022).

As the platform becomes the default content source for students, teachers, and schools, it starts attracting more of them due to the network effect. Subsequently, public systems will feel pressure to contract platforms to provide students with content, pedagogy, and assessment services. Governments and education systems in the USA have signed contracts with Apple, Amazon, Google, and Microsoft to provide educational services to their schools (Cavanagh, 2017). In India, the Government of Andhra Pradesh signed an agreement in 2023 with BYJU'S to distribute their content in government schools. This will allow EdTech platforms to gain control over the education system through vendor lock-in. Given that content, pedagogy, and assessment are the core activities of schools, outsourcing these to external entities (for-profit proprietary product vendors) hollows out the system over time and makes it dependent on the vendor—a crisis for education.

Tech use tends to be sticky due to interface loyalties (users get accustomed to a particular interface and are unwilling to shift products because that would require them to invest effort to become

2 Kota, a city in the state of Rajasthan, is famous for its coaching centres that prepare students to write competitive examinations for further studies and prized jobs. It is infamous for student suicides, caused by the extreme pressure imposed on them by the coaching centres and parents to achieve and pass the high-stakes exams.

acquainted with the new interface) apart from the network effect and proprietary software standards, which requires others to procure the same app. Hence, moving from one platform to another is not easy. To make matters worse, the more intensive a user's interaction with a platform, the more difficult it is to move to another platform. The younger the age at which one gets addicted, the more difficult it is to shake off the addiction (Vollmer et al., 2014). EdTech vendors will find these factors useful in trying to establish a monopoly.

The EdTech crisis

Data and intelligence

A major problem inherent in the proprietary model is of tech drawing data from digital interactions for sale or misuse. The business platforms of Alphabet, Meta, Amazon, and Uber turn social interactions and economic transactions into free or paid services while collecting and monetising their users' data (Sadowski, 2020) to facilitate the targeted delivery of customised advertisements to users. For instance, over 80 per cent of Alphabet's (Google's parent company) revenue comes from online advertising (Graham & Elias, 2021).

The big data collected by platforms are processed through machine-generated algorithms to identify patterns and make predictions (AI). Such data harvesting is an essential element of corporations' efforts at profit maximisation. However, because AI is based on a projection of the past, it tends to exacerbate biases; this has already been alerted in criminal justice, credit scoring, and facial recognition systems (Flynn, 2020). In addition, algorithms reflect their designers' and developers' biases in the rules they frame to guide the algorithms and in the data sets they process.

EdTech platforms are beginning to dominate education by offering gratis products or services, grabbing most of the market share, and harvesting user data. Data security and privacy concerns are aggravated in education because the data subjects are vulnerable children. Students, being minors, are incapable of giving consent, are more vulnerable to data theft, and suffer greater harm. Businesses will manipulate students' behaviour for their commercial priorities. Data collection cannot be prevented in proprietary EdTech because the source code is not open to scrutiny. Alphabet, which owns Google products, tracked user location even after it was turned off by users (eWeek, 2018). Its Chromebook devices spied on children, collecting far more information than necessary (Electronic Frontier Foundation, 2015).

Developing countries have no regulation, or inadequate regulation, of companies collecting data, hence their education systems are vulnerable to data harvesting. Their students are likely to become guinea pigs for EdTech, becoming training data at best (fine-tuning algorithms for personalised learning). EdTech relying on past data to predict future possibilities for students through data-driven models might lead to students from marginalised communities being driven towards vocational training for eventual poorly paid and insecure jobs because the model will likely suggest that—while their peers from dominant social classes are afforded the privilege of

continuing with their mainstream education, which can offer better paying and more secure employment opportunities. Using AI for personalised assessment and learning will aggravate pre-existing social biases and will scientifically create an even more inequitable education system (Kasinathan, 2020).

Such AI-driven learning can take us back to BF Skinner's model of operant conditioning where a machine can direct the development of a human being. Skinner's model was discredited not only because it was proven wrong in its understanding of cognition, but also because, "it would seem, that enforced conditioning of a mind, however good the social intention, has to be evil" (Anthony Burgess as quoted by Watters, 2020, para. 35). Thus, AI-based personalised learning without teachers' active role is problematic on the grounds of cognition, educational philosophy, equity, and morality.

Many data-driven, personalised education initiatives focus on learning rather than education, and on processes rather than on teachers and students. The [social] activity of learning is broken into quantifiable cognitive and pedagogical units, such as instruction, short quizzes, assignments, deliberation with other students, and tests. . . . The "learnification" model is predicated on the real-time, short-term process of learning rather than its long-term outcome, which is, in most schools, to provide an education. Education . . . involves simultaneous nourishing of intellectual, social, technical, and cognitive skills. (van Dijck & Poell, 2015, p. 2678)

The push towards individuation of learning and quantifying individual learning outcomes can affect collaborative learning possibilities focusing on holistic education through open-ended exploration and classroom collaboration. It can push content consumption (rote learning) education models. Learnification is now being hyped through AI-based personalised learning, which gathered pace due to the pandemic. BYJU'S for instance, sells its education services, claiming, "You don't even need school or teachers, where nobody gives any attention to your daughter. Our way is customised. For you" (The Ken, 2019, para. 23).

Tech in education and AI must be regulated and cautiously implemented, perhaps more as a pedagogical support tool for teachers than for direct student learning. A possible use could be analysing error patterns and content possibilities for teachers, allowing them to determine its role. Here, personalised learning does not move in the direction of individualised learning but on humanised personalisation, focusing on collaborative learning to promote equity (France, 2020).

Policy intervention

There have been calls for AI to be banned from certain domains because its potential harms could outweigh the gains. Platforms would increase the harms and risks from EdTech because they will have greater control over the core processes of curriculum, pedagogy, and assessments than earlier EdTech. The potential harms of technology, especially AI, are often known more clearly at a future date while its benefits are more visible immediately (Postman, 1998), so ex-ante regulation is necessary.

Because closed-source algorithms are black boxes, they hide their curricular and pedagogical

assumptions. Hence, their alignment with curricular frameworks or accepted aims and educational processes cannot be validated. Algorithms used to process data must be publicly scrutinised (auditable AI) for the assumptions they make, the educational aims they serve, and the biases they hide. Hence, only open-source algorithms must be used in education and even these must be used only after considering the potential risks involved (Zimmermann et al., 2020).

Education policy is yet to wake up to this crisis. For instance, the Indian National Education Policy 2020 of the Government of India suggests that AI could process big data to develop personalised learning paths for students (Ministry of Human Resource Development, 2020). It naively recommends that data about students' assessment responses be analysed to develop a machine-based understanding of the trajectory of conceptual errors, identifying solutions to address them, and creating learning paths. However, it does not mandate that algorithms must be open and audited.

Recognising the need to prevent the proprietisation of a public good like education, China has banned for-profit EdTech, mandated algorithms to be open, and restricted EdTech platforms' control over data collected from students, teachers, and schools (Koenig, 2021). These regulations are necessary to enable not-for-profit platforms that can provide spaces for teachers, students, parents, and other stakeholders to participate agentially within norms that evolve transparently and collaboratively. While regulating the private sector is an immediate necessity, it is essential to build critical media and digital literacy among teacher and student communities and the larger public to address the crisis of EdTech.

Pandemic crisis and EdTech

The tech sector prospered during the pandemic (the pharmaceutical sector was the only other sector of the global economy that thrived then). EdTech boomed and its role became much more prominent due to school closures caused by lockdowns. Although educators warned that schools should be the last to close and the first to reopen, for the policymakers, it was the reverse—schools were closed first and were the last to open. The medical evidence suggested that the COVID virus had the least impact on children therefore schools could have functioned. Schools for younger children, who were least vulnerable to the virus (Bhopal et al., 2021), tend to be small, and could have continued with the least risk, particularly as the socio-educational loss and harm were highest for them.

The continued long closures of schools revealed the low priority accorded to education by governments. At the peak of global school closures in April 2020, formal learning stopped completely or was severely interrupted for approximately 90 per cent of the world's students in over 190 countries, from a few weeks to upwards of two years (UNESCO, 2022). EdTech was seen as the opportunity in the crisis—"it was understood as the go-to engine to drag schools out of the conveyor belt logic of industrialization and into the newer, networked logics of the 'information age,' the 'knowledge economy' and the 'Fourth Industrial Revolution'" (West, 2023,

p. 53). The pandemic was believed to have provided a unique opportunity for teachers to catch the digital wave at an unprecedented speed (Education Emergency, 2020).

Unfortunately, because EdTech provisioning was mostly private, the boom provided stratified offerings. This meant sophisticated virtual classrooms with high connectivity and devices for the wealthy, coupled with well-resourced and supportive homes—with privileged children suffering less from school closures. On the other hand, SMS and WhatsApp-based asynchronous material sharing passed off as education for students from marginalised communities. Simply sharing material asynchronously without any synchronous support to students, and expecting them to follow instructions (mostly by copying the content to their notebooks or watching videos) implied impoverished learning possibilities for students (Mehmood, 2021). Providing materials appropriate for each learner, scaffolding interactions with students with these materials, and providing feedback on interactions are necessary for learning but were seldom part of the WhatsApp-the-files method.

Online education was ineffective because few students in government schools had the required digital devices and connectivity (West, 2023). Roughly half of the world's population lacked a functional internet connection in 2020 (International Telecommunication Union, 2020). Only 30 per cent of Pakistani households were aware of remote learning opportunities, and fewer than half had the technology required (Mehmood, 2021). Only four per cent of African school-goers were using any form of EdTech at the height of the pandemic (Crawford, 2020). Studies in China, the United Kingdom, and Australia identified that even if students had connectivity, home environments in poor and rural families were not conducive to learning (Brown et al., 2020; Crew, 2021; Li et al., 2020). Furthermore, most teachers felt that their need to be trained in teaching and learning with EdTech was either insufficiently met or not met at all (Colclough, 2020).

The dominant form of EdTech focused on providing content to learners, bypassing teachers, instead of strengthening teachers' abilities to use it agentially. Indeed, there were cases where teachers were provided the content to pass on to students with a strict warning to not add to or modify the content (Batra et al., 2021). The assumption was that "good quality" content would compensate for the lack of classroom transactions. Thus, it promoted a top-down content provision model for students. In its report about education during the pandemic, Human Rights Watch found most platforms directly violated or risked children's privacy and other children's rights for purposes unrelated to their education (Han, 2022).

The consequences of this naive faith in EdTech during school closures will probably have severe and long-term effects on the learning and development of children, especially those from marginalised sections of society. The impact on them is likely to be lifelong because once schools reopened, the attention to their learning recovery was not adequate because they were pushed into catching up with the grade level syllabus. For instance, in Karnataka, a state in India, the K10 public examination results in 2024 were poor, with just half the students passing (in contrast to the usual 90% pass results). The Minister of Education explained that the poor results were due to students being in the crucial middle school years when schools had closed for the academic year of

2020–21 during the pandemic (Deccan Herald, 2024). School closures dealt a devastating long-term blow, especially for children from marginalised communities and EdTech may have been an accessory to this crime (West, 2023).

It is possible that EdTech had a role in establishments seeing prolonged school closures as acceptable (UNESCO, 2022). Recognising the danger of long school closures to the development needs of the children of marginalised groups, individuals and groups across the world pushed for opening schools and keeping them open. In India, educators and activists came together to establish the National Coalition on the Education Emergency (<https://educationemergency.net/about-the-coalition/>),³ which advocated for keeping schools open and promoted using EdTech to support teachers rather than replace them. However, the global consensus on keeping schools closed was extremely strong, oblivious to children's developmental needs. Sweden was an exception; secondary school students had distance learning and younger students had in-person learning except during local outbreaks (European Centre for Disease Prevention and Control, 2023).

Public school education systems tend to be hierarchical, with high centralisation of authority. Schools are seen as delivery instruments of the policymakers and bureaucrats. The teachers, by and large, consider themselves accountable to the administration rather than to the local community. Such an environment is amenable to using tech to strengthen centralised control over education processes (Kasinathan, 2018). Bureaucracies could implement their thinking that EdTech would make up for school closures.

The pandemic accelerated the move towards proprietary and centralised models of EdTech, which have further disempowered schools and deskilled teachers. The vital connection between the overall commercialisation and privatisation of education and proprietary EdTech is however, yet to be seriously considered by most educators and policymakers. For instance, the report of the United Nations special rapporteur on the right to education (impact of the coronavirus disease crisis on the right to education) said:

The deployment of *online distance learning* [emphasis added] . . . should be seen only as a temporary solution aimed at addressing a crisis. The digitization of education should never replace onsite schooling with teachers, and the *massive arrival of private actors through digital technology should be considered as a major danger for education systems* [emphasis added] and the right to education for all in the long term. (United Nations, 2020, p. 2)

In another report, *Impact of the Digitalisation of Education on the Right to Education*, the special rapporteur said that

digitalization of education [emphasis added] should be geared towards a better implementation of the right to education for all. . . . it is important to understand the *profit-driven agenda of digital technology lobbyists and companies* [emphasis added]. (United Nations, 2022, p. 1)

3 Disclaimer: The author was one of the founders of National Coalition on the Education Emergency.

Both reports identified private EdTech actors as dangers but failed to identify that publicly funded EdTech can be the solution. They did not see its public ownership of EdTech as indispensable to free, universal, quality public education.

Publicly owned, decentralised/distributed, cooperative, and collaborative models of EdTech production and consumption are possible. In fact, these would be critical components in the larger efforts to democratise education by empowering the school/teacher/community/local government component of the school system to negotiate with the powerful bureaucracy and the market. Public EdTech has been around for decades now and has demonstrated its potential to meet the needs of education systems. Policy support and public awareness are required for a transition to public EdTech in (and for) public education.

Public (and community) EdTech: The way forward

To visualise a public and decentralised tech environment, we need to split tech into two constituents: the basic infrastructure (hardware), and the digital goods (software, content, and data). The hardware requires significant investment to enable access. In the context of education, such investment in digital public infrastructure should be considered an integral part of the physical and academic infrastructure provisioning of schools and budgeted for based on overall priorities. This should privilege the community's (shared) access to school digital labs over individual laptops for students to promote a communal ethos of EdTech use.

The issue of producing digital goods is quite different. Digital goods—software, content, and data—are non-rivalrous. These can be created, modified, stored, and shared freely at negligible cost. Tech can itself support open and collaborative production, allowing for massive expansion in availability and universal access. Big Tech are controlling society and the economy through the provision of digital goods. Alphabet (Google), Microsoft, BYJU'S, or any other EdTech platform's power comes from its control over digital goods. Hardware, while foundational, is a relatively passive component. Although a significant part of the expenditure would be on hardware; for digital goods, we need to (and can) establish collaborative and cooperative models.

In the Web 2.0 paradigm, proprietary platforms significantly leverage the unpaid efforts of millions of individuals to develop digital goods. Google Maps, Google Translate, or ChatGPT have developed from user contributions. These efforts could instead be leveraged through projects that work with free and open licenses (such as Wikipedia) because the user-contributors would certainly prefer to share their work with the public instead of increasing a monopoly's profits.

Kerala, a public EdTech role model

The Kerala education department initiated a school-owned and teacher-led EdTech model in 2002—the FOSS-based IT@Schools programme. IT@Schools was perhaps the only successful example from the ICT@Schools umbrella programme of the Indian Government implemented in many states (Kasinathan, 2009). Kerala has continued with its tradition of public sector production of EdTech over the last two decades, with increasing maturity that reflects in greater functional

coverage of EdTech in educational processes and maximising school/teacher/student coverage to ensure inclusion.

The state has established the Kerala Infrastructure and Technology for Education (KITE) as a special-purpose vehicle within the public education system. KITE has set up state, district, and sub-district structures staffed by teachers who provide technological pedagogical content support to public schools. This includes hardware maintenance and upgrades (ensuring EdTech infrastructure uptime), student digital literacy (through the advanced Little Kites programme, which Finland is keen to adopt [Financial Express, 2022]), special academic programmes such as the E-Language Lab (ELL), teacher and student open educational resources repositories, student mentoring by teachers (Sahitham), CPD (through Moodle LMS), School MIS, and school websites (Kwet, 2023). These programmes comprehensively cover the activities of the public education system and are designed, implemented, and managed by KITE. No private sector vendors provide any educational software or content services, avoiding vendor lock-in and data theft and harvesting by them.

Most government and government-aided schools in Kerala implemented the ELL programme during 2022–23 (Regional Institute of English South India & IT for Change, 2022). Such a smooth implementation of a new EdTech programme across 14,000 schools within a single academic year is a testimony to the maturity of the public EdTech model. Because ELL uses FOSS, it can be used by any institution, any public education system or government, and freely implemented in all their schools without any license fee, vendor lock-in, or data theft. Each can also freely enhance/contextualise ELL based on their own needs, including extending it to their own languages.

The content of the ELL programme has been developed by the teachers in the Kerala public education system. They accessed existing open educational resources (OER) from the StoryWeaver portal (<https://storyweaver.org.in/en/>), which has thousands of stories for children, in numerous languages. Teachers created audio-visual complementing content for each story selected for the programme, in the KITE studio. These resources, consisting of reading aloud, enacting the stories, adding activities, assessments and so forth, are available for public access, on the KITE website. This model—of preparing teachers to use FOSS, access existing OER, and create/revise/contextualise new OER can be used by any public education system, to develop a rich learning environment that is multi-modal (text, image, audio, video, animations), multi-level (for instance the same story can be made simpler or more complex, activities can be at varying levels of complexity), and multilingual (for catering to multilingual classrooms and for learning different languages; Kasinathan, 2021).

Universal provisioning of digital education during the pandemic

This maturity concerning the use of technology in education enabled Kerala to address the pandemic crisis inclusively. Like other states, Kerala was also subject to a nationwide lockdown from May 2020. KITE started broadcasting lessons (called, First Bell) through its Vikters TV

channel a short while later, and supported teachers to conduct online classes. KITE identified families who did not have access to digital devices and launched a programme for such families to get devices through donations, which addressed the device shortage (Anuparma & Sreekala, 2020). A special equity focus ensured that communities that were least provided for, such as migrants, were prioritised in resource allocation. Due to CPD programmes, teachers were able to use digital and online education to reach students during school closures.

Of course, this is not to suggest that the online and digital education modes were an adequate replacement for in-person learning during the pandemic. There were challenges in Kerala as well because online education could not cover students in remote, hilly areas and in tribal habitations. Also, in-person learning benefits resulting from physical engagement and social interactions were not available. However, the public education system was able to design universal digital education programmes while avoiding constraints and dangers from proprietary platform vendors.

A survey by UNICEF in six Indian states concluded that students fell behind in social skills, fitness, job prospects, and so forth, during the pandemic (UNICEF, 2021). More than two-thirds of parents stated that their wards' overall progress was significantly or somewhat behind. However, in Kerala, about 70 per cent of parents believed that their wards' overall learning progress had been the same or better than it would have been in school, and more than 90 per cent reported that students were speaking with their teachers (UNESCO & UNICEF, 2021). The public EdTech model of Kerala offers a compelling alternative to the mainstream vendor-driven, proprietary EdTech model.

Conclusion

The pandemic clearly showed that privatised and proprietary EdTech solutions will take us away from our aim of universal and inclusive education. Unlike proprietary EdTech, public EdTech can offer teachers and schools agency in designing its curricular integration. Hence, the question is not “Do we need technology?” or “Can we do without it?” but “How can we offer teachers the agency to design and deploy tech in ways that meet their students' educational needs?”

When a school system supports teachers and helps in building their capabilities to engage with EdTech, exploring its use, designing its appropriation in a manner relevant to their contexts and needs, and avoids EdTech that the school or teacher cannot own, then it enables agentic possibilities for teachers to appropriate EdTech. Therefore, school systems should move to the public EdTech model in line with the ethos of education as a public good. Only such a model can work for equitable outcomes in education.

References

- Anuparma, R. A., & Sreekala, V. S. (2020, July 7). *How the Kerala model of bringing classrooms home works*. The Wire. <https://thewire.in/education/kerala-covid-19-education>
- Batra, P., Baza, A., Ranjit, N., Kaur, H., Das, R., & Shanmugan, A. (2021). *Impact of the COVID-19 pandemic on education, livelihoods, and health in India*. Transforming Education for Sustainable Futures: Indian Institute for Transforming Settlements. <https://doi.org/10.24943/icpelhi08.2021>
- Bhopal, S. S., Bagaria, J., Olabi, B., & Bhopal, R. (2021). Children and young people remain at low risk of COVID-19 mortality. *The Lancet Child & Adolescent Health*, 5(5), E12–E13. [https://doi.org/10.1016/S2352-4642\(21\)00066-3](https://doi.org/10.1016/S2352-4642(21)00066-3)
- Brittain, B. (2023, September 7). *Open AI, Microsoft hit with new US consumer privacy class action*. Reuters. <https://www.reuters.com/legal/litigation/openai-microsoft-hit-with-new-us-consumer-privacy-class-action-2023-09-06/>
- Brown, N., Te Riele, K., Shelley, B., & Woodroffe, J. (2020). *Learning at home during COVID-19: Effects on vulnerable young Australians* (Independent Rapid Response Report). University of Tasmania, Peter Underwood Centre for Educational Attainment. https://www.utas.edu.au/__data/assets/pdf_file/0008/1324268/Learning-at-home-during-COVID-19-updated.pdf
- Castells, M. (2010). *The information age: Economy, society, and culture: Vol. 1: The rise of the network society* (2nd ed.). Wiley-Blackwell.
- Cavanagh, S. (2017, May 8). *Amazon, Apple, Google, and Microsoft battle for K-12 market*. Market Brief. <https://marketbrief.edweek.org/sales-marketing/amazon-apple-google-and-microsoft-battle-for-k-12-market-and-loyalties-of-educators/2017/05>
- Colclough, C. (2020). *Teaching with tech: The role of education unions in shaping the future*. Education International. https://issuu.com/educationinternational/docs/2020_ei_research_teachingwithtech_eng
- Crawford, L. (2020, May 18). *Why the COVID crisis is not EdTech's moment in Africa*. Center for Global Development. <https://www.cgdev.org/blog/why-covid-crisis-not-edtechs-moment-africa>
- Crew, M. (2021). *Literature review on the impact of COVID-19 on families*. The National Literacy Trust. https://cdn.literacytrust.org.uk/media/documents/Updated_COVID-19_Literature_Review.pdf
- Deccan Herald. (2024, May 17). *Angry CM pulls up officials for granting grace marks for SSLC exams*. <https://www.deccanherald.com/india/karnataka/angry-cm-pulls-up-officials-for-granting-grace-marks-for-sslc-exams-3027834>
- Dutta, N. (2015, May 20). *13 Traits “sharmaji ka beta” has that you don't*. Storypick. <https://www.storypick.com/sharma-jr-is-better-than-you/>
- Education Emergency. (2022, May 28). *Right digitalisation in education? Summary note with suggestions for action*. <https://educationemergency.net/2022/05/right-digitalization-in-education-summary-note-with-suggestions-for-action/>

- Electronic Frontier Foundation. (2015). *Google deceptively tracks students' internet browsing, EFF says in FTC complaint*.
<https://www.eff.org/press/releases/google-deceptively-tracks-students-internet-browsing-eff-says-complaint-federal-trade>
- European Centre for Disease Prevention and Control. (2023). *The Swedish advice-making process for distance learning in schools, November 2020–April 2021*.
<https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-swedish-advice-making-process-schools-2020-2021.pdf>
- eWeek. (2018, August 16). *Google location tracking continues even after turned off, probe finds*.
<https://www.eweek.com/cloud/google-location-tracking-continues-even-after-turned-off-probe-finds>
- Financial Express. (2022, October 7). *Finland partners with Kerala govt to replicate little KITEs model*.
<https://www.financialexpress.com/jobs-career/education-kite-it-kerala-finland-education-mode-helsinki-2703658/>
- Flynn, S. (2020, November 16). *13 Cities where police are banned from using facial recognition tech*. Innovation & Tech Today.
<https://innotechtoday.com/13-cities-where-police-are-banned-from-using-facial-recognition-tech/>
- France, P. E. (2020, July 6). *Three tips for personalizing in a pandemic*. Make Teaching Sustainable.
<https://maketeachingsustainable.org/blog/2020/07/06/three-tips-for-personalizing-in-a-pandemic>
- Friere, P. (2000). *Pedagogy of the oppressed*. Bloomsbury.
- Garbade, M. (2020, May 28). *Free software vs open source vs freeware: What's the difference?* DZone.
<https://dzone.com/articles/free-software-vs-open-source-vs-freeware-whats-the>
- Gilbert, R. M. (2009). *Distance education: Is the classroom becoming obsolete?* UNI ScholarWorks.
<https://scholarworks.uni.edu/grp/758/>
- Graham, M., & Elias, J. (2021, October 13). *How Google's \$150 billion advertising business works*. CNBC.
<https://www.cnn.com/2021/05/18/how-does-google-make-money-advertising-business-breakdown.html>
- Han, H. J. (2022). *"How dare they peep into my private life?"* Human Rights Watch.
<https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments>
- Hirth, J., & Rhein, M. (2021, April 30). *Algorithmic assembly lines: Digitalization and resistance in the retail sector*. Longreads.
<https://longreads.tni.org/algorithmic-assembly-lines-digitalization-and-resistance-in-the-retail-sector>
- International Telecommunication Union. (2020). *Measuring digital development: Facts and figures*.
<https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2020.pdf>
- Kasinathan, G. (2009). *ICTs in education: Outsourced versus integrated approach* (Policy brief). IT for Change.
<https://itforchange.net/index.php/policy-brief-%E2%80%93-icts-education-outsourced-versus-integrated-approach>

- Kasinathan, G. (2018). Exploring teacher agency: ICT programme design in school education. *Voices of Teachers and Teacher Educators*, VII(1), 121–128.
https://ncert.nic.in/pdf/publication/journalsandperiodicals/vtte/vtte_aug_2018.pdf
- Kasinathan, G. (2020). Making AI work in Indian education. *Artificial Intelligence in India*, 6.
<https://dx.doi.org/10.2139/ssrn.3873187>
- Kasinathan, G. (2021). National Education Policy 2020: Imagining digital technologies as a resource to achieve educational aims. *Voices of Teachers and Teacher Educators*, X(II), 20–28.
https://ncert.nic.in/pdf/publication/journalsandperiodicals/vtte/Dec_Issue-2021.pdf
- Kasinathan, G., & Dasarathy, A. (2022). The EdTech Leviathan. *Economic and Political Weekly*, 57(1), 36–40. <https://www.epw.in/journal/2022/1>
- Koenig, R. (2021, July 26). *Online tutoring in China was booming. Then came a dramatic shift in regulations*. EdSurge.
<https://www.edsurge.com/news/2021-07-26-online-tutoring-in-china-was-booming-then-came-a-dramatic-shift-in-regulations>
- Kumar, K. (1988). Origins of India's "textbook culture." *Comparative Education Review*, 32(4), 452–463.
<https://www.jstor.org/stable/1188251>
- Kwet, M. (2023, June 23). *Flying the KITE high against digital colonialism: FOSS in the era of EdTech*. Bot Populi.
<https://botpopuli.net/flying-the-kite-high-against-digital-colonialism-foss-in-the-era-of-edtech/>
- Li, G., Zhang, X., Liu, D., Hao, X., Hu, D., Lee, O., Rilling, C., Ma, Y., Abbey, C., Fairlie, R., Loyalka, P., & Rozelle, S. (2020). *Education and EdTech during COVID-19: Evidence from a large-scale survey during school closures in China*. Rural Education Action Programme.
https://fsi-live.s3.us-west-1.amazonaws.com/s3fs-public/education_and_edtech_during_covid-19-final-08032020.pdf
- Mehmood, F. (2021). *COVID-19: Bridging the digital divide in education*. Centre for Human Rights.
<https://cfhr.com.pk/wp-content/uploads/2022/01/Covid-19-Bridging-the-Digital-Divide-in-Education-CFHR-Report-2022.pdf>
- Ministry of Education. (2022). *National digital education architecture: NDEAR ecosystem policy*.
<https://www.ndear.gov.in/images/pdf/NDEAR-Ecosystem%20Policy-Version.pdf>
- Ministry of Human Resource Development. (2020). *National education policy 2020*.
https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English.pdf
- Mishra, P., & Koehler, M. J. (2006) Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054.
<https://psycnet.apa.org/doi/10.1111/j.1467-9620.2006.00684.x>
- Postman, N. (1998, March 28). *Five things we need to know about technological change*.
<https://web.cs.ucdavis.edu/~rogaway/classes/188/materials/postman.pdf>

- Postman, N. (2009). *Teaching as a subversive activity: A no-holds-barred assault on outdated teaching methods-with dramatic and practical proposals on how education can be made relevant to today's world*. Random House.
- Regional Institute of English South India & IT for Change. (2022). *Impact study: KITE e-language lab: Endline study report*. <https://kite.kerala.gov.in/KITE/KITEELL.pdf>.
- Sadowski, J. (2020). The internet of landlords: Digital platforms and new mechanisms of rentier capitalism. *Antipode*, 52(2), 562–580. <https://doi.org/10.1111/anti.12595>
- Scherer, M. (2012, February 1). *Perspectives: The teacher-proof myth*. Association for Supervision and Curriculum Development. <https://www.ascd.org/el/articles/the-teacher-proof-myth>
- Stallman, R. (1983, September 27). *Initial announcement*. GNU Project. <https://www.gnu.org/gnu/initial-announcement.html>
- Stobierski, T. (2020, November 12). *What are network effects?* Harvard Business School Online. <https://online.hbs.edu/blog/post/what-are-network-effects>
- Thadani, R. (2014, March 28). Is the end of Windows XP support putting ATMs at risk? *Quick Heal Blog*. <https://blogs.quickheal.com/is-the-end-of-windows-xp-support-putting-atms-at-risk/>
- The Ken. (2019, May 27). *BYJU'S and the art of the deal: Inside a one hour pitch*. <https://the-ken.com/blog/byjus-and-the-art-of-the-deal/>
- Toyama, K. (2011). *There are no technology shortcuts to good education*. Educational Technology Debate. <https://edutechdebate.org/ict-in-schools/there-are-no-technology-shortcuts-to-good-education/>
- UNESCO. (2022). *COVID-19 recovery. Education: From school closure to recovery. Monitoring of school closures*. <https://en.unesco.org/covid19/educationresponse>
- UNESCO & UNICEF. (2021). *India Case study situation analysis on the effects of and responses to COVID-19 on the education sector in Asia*. https://www.unicef.org/rosa/media/16511/file/India_Case_Study.pdf
- UNICEF. (2021). *Rapid assessment of learning during school closures in the context of COVID*. <https://www.unicef.org/india/media/6121/file/Report>
- United Nations. (2020). *Right to education: Report of the Special Rapporteur on the right to education*. <https://www.ohchr.org/en/documents/thematic-reports/ahrc4439-right-education-impact-coronavirus-disease-crisis-right>
- United Nations. (2022, April 19). *Impact of the digitalisation of education on the right to education*. <https://www.ohchr.org/en/documents/thematic-reports/ahrc5032-impact-digitalization-education-right-education>
- van Dijck, J., & Poell, T. (2015). Higher education in a networked world: European responses to US MOOCs. *International Journal of Communication*, 9(1), 2674–2692. https://www.researchgate.net/publication/281029492_Higher_Education_in_a_Networked_World_European_Responses_to_US_MOOCs
- van Greunen, D., Kativu, K., Veldsman, A., & Botha, J. (2021). *Enhancing ICT readiness of schools in South Africa*. Republic of South Africa. https://www.dst.gov.za/images/Policy_Brief_June_2021.pdf

- Vollmer, C., Randler, C., Horzum, M. B., & Ayas, T. (2014). Computer game addiction in adolescents and its relationship to chronotype and personality. *SAGE Open*, 4(1).
<https://doi.org/10.1177/2158244013518054>
- Watters, A. (2020, June 21). *The Ed-Tech imaginary*. Hack Education.
<http://hackeducation.com/2020/06/21/imaginary>
- West, M. (2023). *An ed-tech tragedy? Educational technologies and school closures in the time of COVID-19*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000386701>
- Zimmermann, A., Di Rosa, E., & Kim, H. (2020, January 9). *Technology can't fix algorithmic injustice*. Boston Review. <https://www.bostonreview.net/articles/annette-zimmermann-algorithmic-political>

Notes on the author

Gurumurthy Kasinathan is the Director of IT for Change, and Lead—Education and Technology.

Address for correspondence

Guru@ITforChange.net

Higher education during COVID-19 crisis: Situation, presence, and place

Padma M. Sarangapani

Tata Institute of Social Sciences, Mumbai, India

Abstract

This paper uses a phenomenological approach to focus on the experiences in higher education institutions during the crisis caused by the COVID-19. Using an auto-ethnographic recollection of experiences as they unfolded over the two-year period of the crisis, the paper attempts to examine the pandemic's effects by piercing through the successes and issues of the various educational technologies that were deployed: the effective management through which elite institutions achieved business as usual. By focusing on the psychological and emotional phases through which faculty and students dealt with new learning, teaching, and institutional forms, the paper seeks to draw attention to the effects of shock (im)mobility during the crisis, and its continuing effects thereafter. It draws attention to the importance of adopting ethnography and interpretative phenomenological analyses, arguing that this enables engagement with the core and distinctive effects of the pandemic on the aims and process of education, and on the persons of learners and teachers, thereby leading to a focus on the centrality of place, presence, and situation in understanding the practice and effects of higher education.

Keywords: phenomenology, emergency educational technology, COVID-19, shock mobility, higher education

Sarangapani, P. M. (2024). Higher education during COVID-19 crisis: Situation, presence, and place. *Southern African Review of Education*, 29(1), 84–99.

work/study/teach-from-home ways. Much of this, where devices and internet were available, involved using proprietary apps and platforms including WhatsApp and Telegram, Zoom, Google Meet, and Webex, and learning management systems such as Moodle and other platforms developed by national education systems or offered by private digital companies such as Google and Microsoft and Cisco. Research literature from developing country contexts in Africa and South Asia/Asia Pacific on experiences of the pandemic in the higher education sector brings to light similarities of issues that were experienced by faculty and students. In this literature, which is discussed below, two broad strands emerge: the impact of the need to transition to ICT use, and the psychosocial effects of dealing with crisis and technology.

A common feature was the challenges experienced in teaching and learning due to a lack of preparation and skills, and the digital divide that affected students (Pokhrel & Chhetri, 2021). Even though in South Africa and in India, a trend of ICT integration into higher education was already well underway as a part of national agendas (Government of India, 2020; Singaram & Mayer, 2022), overall systems, particularly those of faculty and secretariats, were underprepared for the extent of ICT use required for management and curriculum delivery. Correctly noting that this was emergency remote teaching rather than simply online/digital/remote education, papers from various parts of the developing world have pointed out that the unpreparedness, abruptness, speed, and trial and error, with poor institutional frameworks and administration that marked the adoption of new technologies gave experience of these technologies a unique and different form that had similarities with, but cannot be understood simply as, online teaching learning (see, for example, Coetzee et al., 2021; Prabhu et al., 2021; Roy & Brown, 2022). The most common technologies that were deployed to continue education during this period used ICT and digital technologies. More traditional remote learning technologies such as radio, television, or print were neither used as much, nor accessed much by learners (van Cappelle et al., 2021).

Research also shows that inequalities in ability to access or benefit from digitally mediated higher education largely followed existing socio-economic and gender inequalities and marginalities, and were pro-rich (see Liu, 2021; Motala et al., 2021; Nwosu et al., 2022; Sharaievska et al., 2022). The experiences of privileged and less privileged students were vastly different because of the digital divide (cost of devices and data being the primary reason for very unequal access to, and experience of, digitally mediated classrooms and multimedia resources hosted on platforms) because students had to rely on private resources to access and continue their education. The experiences of teachers drew attention to their vulnerable and limited professional competence—highlighting their under preparedness for teaching using ICT, the limited support they received to make the transition, and their experiences of technostress (Harunavamve & Ward, 2022; Menon & Motala, 2021). More often noted in the context of private schools (but also affecting privatised higher education), were the difficulties in normalising after a period of dwindled income and low staff productivity on account of COVID-19 (Tamrat, 2021).

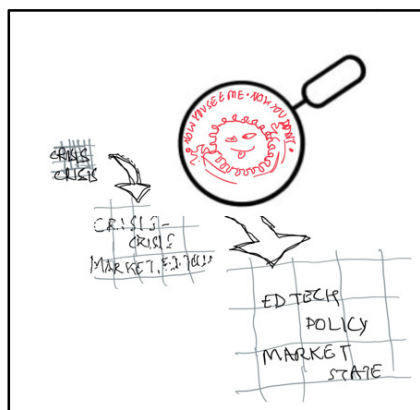
Also noted in the literature, were the associated psychosocial aspects. There was widespread intensification of work experienced by teachers of school and higher education (Chandran et al.

(2021), affecting women academic in particular, and who also saw a precipitous decline in productivity (Singh et al., 2022; Walters et al., 2022). Depression, burnout, negative emotions, senses of isolation and fatigue were all widely noted (Fouche & Andrews, 2021; Otu et al., 2023; Thompson & Christian, 2022; van der Ross et al., 2022, Van de Velde et al., 2021). Figure 1 was drawn by the author during COVID, and represents the multi-tasking she and her colleagues were engaged with.

Now you see me, now you don't

Figure 2

Zooming in on crises



There is agreement that the pandemic has had impact on the education system. Yet, when a group of researchers and students from South Africa and India involved in the NIHSS-supported research seminar series¹ examined and debated aspects of the crisis and read research literature, it seemed that discussions that began with COVID-19 and its manifest forms in health, or mobility, or employment and earning, or state-mandated campus closures, soon developed into conventional critiques of edtech, the market, and state policy in higher education. These included familiar problematics such as overstated claims by educational technology in delivering education; private interests shaping the sector; privacy, datafication, privatisation, and market forces; problems of social inequalities and digital divide; the politics of the times; neoliberalism and the changing nature of the state and the market; and the vulnerability of faculty, particularly women. It is as if, when we start trying to focus on the COVID crisis, instead of the features of the crisis becoming clearer, they become diffused and soon show themselves to be pre-existing and familiar problematics: edtech, the market, the state and state policy or social reproduction of inequality, and stratification (see Figure 2). It is as if our experience of the crisis becomes reconstituted as it becomes assimilated into familiar pre-crisis phenomena or categories, leading us to wonder, do

¹ Re-imagining Research and Teaching and Learning During Times of Crises, was a four-part hybrid seminar series supported by the National Institute for the Humanities and Social Sciences, in which faculty and student researchers from University of Johannesburg and Cape Peninsula University of Technology, South Africa and Tata Institute of Social Sciences, Mumbai and Hyderabad, India, collaborated to present and deliberate on aspects of the COVID crisis, between May 2022 and January 2023.

crises primarily intensify existing social, political, and educational processes and forms that are already unfolding around, and enfolding us? Are there methodologies that can enable us to focus on and examine the experience of the pandemic and the crisis it has caused, resisting the pull of familiar categories and constructs?

In this paper, I make an effort to think through the experience and meaning of the crisis and research it. In an attempt to stay focused on the crisis rather than allowing it to become a lens or an instance, I explore a methodology of examining experience of self—running an intense inward gaze on the phenomenon of self-in-the-world moving-through-experience. As I explicate in the paper, this method affords the psycho-phenomenological lens needed to delve into experience. It is similar to interpretative phenomenological analysis (IPA), an approach to examining topics that are complex, ambiguous, and emotionally laden (Smith & Osborn, 2015). In IPA, understanding life experiences involves a process of critical interpretation. Chattaraj and Vijayraghavan (2021) used an IPA approach to explore students' experiences of emergency remote learning during the pandemic, alighting on the importance of learning space.

I teach at a university in the western part of India. The university is reputed for its postgraduate teaching in various areas of applied social sciences (with emphasis on inclusive education, community orientation, and field action), and its involvement in local, state, and national policy advocacy and development. In this paper, I stay with my own experiences during two phases of COVID: the period of March 2020 until about March 2022 of intense immobility (lockdowns and campus closures), and the subsequent post-vaccination time of freeing up of movement. I draw on the immediate and intimate intensity of personal experience, memory, and reflection to still my attention and remain focused on the crisis of COVID and its effects. By engaging with the crisis in this anthropo-philosophical, interpretative phenomenological manner, I draw out its unique significance to expose aspects of reality that usually remain tacit and invisible.

Analysis

My analysis is developed in five sections. This is followed by theorisation and a conclusion. I begin with the overarching collective endeavour at my university to go about business as usual. Then I examine my experience as the crisis prolonged and extended in the following two sections: a creeping sense of crisis, and co-option into triumphant resilience. Next, I reflect on how these led to a crowding out of the crisis and finally, I look at my progressive sense of becoming unsituated—manifested in my inability to engage with context on hand and progressive inability to engage with technology-mediated reality. I then use this analysis to draw attention to and theorise the importance of presence, place, and situation as the tacit substratum of authenticity in higher education. I reflect on their salience in enabling teaching, learning, and education to be constituted, and to enable teachers and learners to achieve intent, purpose, and outcomes in the course of education.

Business as usual

By March 2020, it seemed that we were entering a phase of prolonged uncertainty and delay with regard to getting back onto campus for teaching and learning. The university had to close campus. Students in hostels were asked to return home immediately, and the dining hall was closed. Most semester teaching was over, and admission interviews, which were on at the time, had to be cut short. The first focus was adhering to protocols and tasks to comply with prescribed regulations for health safety and the nationwide lockdown. The university already had a few online meeting platform subscriptions and was able to quickly transition to meeting online to sort out and coordinate various matters—the admissions, the research dissertations, and the results.

As a member of the middle class, and faculty of a reasonably well-endowed university, it seemed that I was able to carry on with business: wrapping up teaching and assessment; meeting students, colleagues, and staff to coordinate tasks; submitting research reports; and so forth. My centre² had been using various online collaboration and meeting tools such as Webex and Zoom, telephone conferencing, as well as Google Docs quite extensively for five years in the course of coordinating a large-scale multi-sited international field action edtech project. Carrying on with the daily tasks from home seemed unproblematic.

As early as March 2020, our university was anticipating that there would be uncertainty regarding campus reopening, and that we could well expect the new academic session to begin without returning to campus. By the last week of March, we had begun discussions on how to transition to online should the need arise, and taken stock of options and technologies to support this. My colleagues are knowledgeable about and accustomed to using edtech tools to interact and collaborate. We have also engaged in experimenting with, and innovating, the design and development of interactive and engaging online and blended continuous professional development courses for school teachers. Thus, being a centre with a strong engagement in experimenting and innovating with technology use in school and teacher education, and working with distributed groups and individuals, we were set with the tools, devices, and practices to not only to get on with using technology, but also to do it well—in a manner that engaged learners and fostered communication, community, and learning.

I offered our centre's expertise to guide the university to gear up for a semester of online teaching and learning. We set up a group to design our learning management system platform and to develop norms to guide online learning design. By May and June of 2020, with no sight of either lockdown being lifted or campus reopening, it was fairly clear that the new year would need us to be online. We were prepared for this. A faculty capacity building course was designed, ready, and offered. Our university was already using Moodle to distribute readings to students and for managing assignments. The version of Moodle was updated and customised to serve as a more

2 The Centre of Excellence in Teacher Education, which has development and research expertise in using educational technology in developing country contexts and has designed and led several large-scale initiatives on using edtech in schools and for teacher professional development.

comprehensive learning management system. Guidelines for online teaching and how to use Moodle were developed and discussed. Secretariats were oriented to managing and supporting faculty and students. Careful protocols and helplines were put into place and existing batches of students drawn in to support new students.

Some of the centres and faculty in the university were also engaged with responding to the crisis in society, which included a few community initiatives and helplines. The infectious nature of the pandemic had affected the hands-on, in-community form of disaster response that the university had adopted on several occasions in the past. Instead, we offered services and support from the confines and safety of our homes. My centre launched COOL (connected open online learning) resources, which we curated for high schools, school teachers, and teacher educators, and we shared these widely. By July, it was clear that the semester would start online and our COOL activities were put on the back burner when the semester teaching began.

Across the university, all faculty schools and programmes geared up. Until then, blended and online learning were familiar ideas—of which, most faculty were sceptical. But left with no option, and with the added new tools of synchronous online meeting and WhatsApp, many came around to the possibility of managing classes online to keep the show going. We exercised judgement on which courses to prioritise and take up in the online mode, hoping that the next semester would give us an opportunity to return to campus for the practice-based, experiential, hands-on, laboratory-type courses. The academic session 2020–2021 was launched online by about August 2020. We inducted not only the existing batch of students, but also the incoming batch into the norms and practices for online learning. We knew things were abnormal and not suitable but, on the whole, we felt fairly prepared for the transition to the online. A faculty colleague, reflecting on her experience of this transition, noted the assistance she had received from the university—guidelines, faculty development, and support (Nigudkar, 2022).

The fact of the crisis was first felt in the form of the digital divide among our students. There were several who were caught at home without the right devices, or internet, or bandwidth—having to access class on mobile phones, sitting in public spaces to catch internet. The university had anticipated these problems, and had made efforts to support them through aid to buy data and by sending them devices. We ensured that all Zoom classes were recorded and stored to be accessed later by students. Students were encouraged to form support systems for each other. A little later, some students began to confide in us that paying fees was going to be difficult. This had also been anticipated. We knew we would have to organise more student assistance—devices, aid, shift submission dates. Beyond this, students needed to manage and cope. Exigencies would be addressed on a case-by-case basis. All of these seemed to be problems with which we were familiar—similar to what we generally encountered on campus, only on a larger scale. It seemed we were not being challenged by new matters, only the familiar inequalities related to access to resources, cultural capital, and knowledge of English.

Creeping sense of crisis

Towards the end of this first semester of 2020, and more so in the following semester, the sense of crisis began to creep in as things started changing. Student attendance in online classes began to drop. Reading before class, or for class, came virtually to a standstill. Videos remained switched off during online classes. I often felt I was speaking to just two or three students who responded in chat or left their videos on to keep interaction going. Students and faculty came together to organise a few social interactions to create informal get-togethers. We organised listening to music together, or sharing stories, and some fun activities and quizzes, which were engaging. But very few students logged in for these events.

We talked about these problems at the centre's faculty meetings. As the year progressed and it became clear that the academic session of 2021–22 would also start and run in this way, we thought about how we could find better ways of connecting with our students. We discussed many possibilities: try to organise our own local meet-ups in different parts of the country (there was no official university policy on this matter), send students printed copies of readings so they would not need to be on the screen to such an extent, keeping office hours on Zoom with personal rooms where students could drop in.

At about this time, I began experiencing the crisis as a problem of personal psychology—personal motivation, commitment, and time-and-task management. I found it difficult to keep up my own motivation to read for and log into class; my focus began to shift to getting the classes done. I thought about reaching out to talk to each student at a personal level, but I did not seem to have the energy or time to do this, apart for a few. During centre faculty meetings I began to wonder how many of us were listening to each other and not switching off when we thought the agenda not relevant to us. It began to be difficult to establish a sense of place, institution, and profession, within the screen of my laptop, WhatsApp groups on my phone, and trying to keep track of Zoom links and meeting times.

It seemed as if with a little more effort or input we could get things more on track. We were haunted by “if onlys”—if only I could be more organised; if only I could add another hour and make those calls; if I could just discipline myself to spend time on reading and preparing for class and design my class with more interaction, some breakout room activity maybe?; if only I could spend a little more time and write out those personal encouraging messages to my students or younger colleagues; if only we could call another meeting—or do a little more planning so our social event would work; if only we could be more efficient and get the laptops out to students on time; if only everyone could finalise their readings early enough and send them to be printed and despatched on time!

It seemed that what I needed to do had not changed—only how to do it. Moreover, I felt I knew what I needed to do to get the how right, and to get it done. I felt what was needed of me was to manage my time and work better. The crisis seemed to have morphed. It did not seem to be about the pandemic and the consequences it was having on livelihoods, and health, and disruption. It was being experienced as coping and managing (business as usual) by using technology and giving

more time and effort. There was no change in the business itself—not in the what, nor in the when.

Co-option into triumphant resilience

Then, on 29 July 2020, the Government of India (2020) announced the National Education Policy (NEP 2020; Government of India, 2020), which had been finalised in 2018 but not released to the public. The announcement of the policy in the midst of the pandemic was unexpected. It was followed by a flurry of online meetings called by the Ministry of Education, and several online conferences to discuss all aspects of the policy—for school and for higher education. It was immediately clear that the changes this policy envisaged for university education were far reaching—from the requirement that universities be multi-disciplinary, master's programmes be one year, and undergraduate programmes four years with entry and exit options. It seemed imperative that the university should deliberate on these matters, plan changes, and devise responses. By August 2020, as the university was gearing up for its first semester of teaching online, committees were formed to discuss the NEP 2020 and its implications. Managing the semester was streamlined with Zoom accounts, and faculty and student orientations: the creative effort being demanded of us to respond to the NEP 2020, and no longer to the crisis of COVID! Committees were set up to deliberate on aspects of the policy, and to review and plan curricular changes particularly in the undergraduate programme.

The curriculum response to COVID was in the form of shifting courses between semesters, reducing the credit load of some courses, allowing students to do courses in place of a research dissertation, and redesigning practicum components to make them suitable to an online environment. These were reported to the Academic Council in August 2020. At the same time, new courses, new programmes, and changes continued to be presented for approval to the Academic Council. These were matters that had been in consideration by schools and universities prior to COVID or in response to the NEP 2020. Soon, the direction, form, and pace of curriculum and programme restructuring were being set almost entirely by the NEP 2020. With the exception of a greater confidence in, and adoption of, online modalities, no other changes seemed to be evident due to the COVID-19 pandemic. Programme and course revisions and changes were made in response to the NEP 2020. COVID-related matters in administration, or curriculum, or pedagogy did not come onto the agenda. Rather, various ideas thrust on higher education academia took the forefront. Multi-disciplinarity in programme structure, possible one-year master's self-financed courses, and the pressing need to expand undergraduate enrolment and align the curriculum to four-year programmes, were being discussed at length. In short, we were engaging with all of the activities that a higher education institution would, following a new NEP. The fact that we were still off-campus and running an emergency remote learning online university during the pandemic did not seem to change or alter any of the work or tasks.

The fact of a health pandemic and a pandemic management response that had severely disrupted life, economy, and education seemed to have become invisible in the quotidian. As television reports increased about the distress of the illness and of the economy, it seemed as if it was happening around us, being witnessed from the confines of our homes. Most of us faculty, as

members of the middle class, were in a cocoon in which we had to carry on doing what we were supposed to as an institute of higher education. We not only conducted all our teaching and announced grades, but we also managed fully online admissions and fully online convocation. We triumphantly announced our resilience, establishing that we had adapted and overcome challenges, and by using technology.

Crowding out the crisis

It seems that busyness, engendered both by the need to manage business as usual as well as cope with new educational demands created by the NEP 2020 announcement, crowded out the real crisis around us. The pandemic was crowded out of our minds as an object of attention and engagement—not in teaching nor in our research.

During this time, there were a few online seminars that afforded me opportunities to think about the impact of and responses to COVID: the use of technology, the fact that family support was crucial for engagement through technology, that initiative taken by teachers in making learning interactive and authentic was crucial, and so forth. However, these seemed to be fleeting changes of track. Views that could have redirected or refocused my attention, potentially altering what I was doing, did not remain with me for long. Thoughts of resisting the flow, reflection on redirection, and re-forming my view on what we should or could be doing at such a time did not stay with me.

I wanted, but did not manage to find a way to situate my classes and the course content in what was happening around us. Students were experiencing a range of effects of the pandemic—their own digital access, the affordances of technology, being isolated and not having a space of their own at home, seeing their siblings and relatives engaged in school-conducted online classes or none at all, and so forth. However, these experiences did not find their way into the classes or our courses.

Becoming doubly unsituated

Now, *here*, you see, it takes all the running *you* can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that! (Carroll, 1882, p. 42)

In retrospect, I feel becoming unsituated was the crisis. This involved finding oneself suspended in space and time, and running to be able to stay in a familiar world—curiously, now conjured up virtually—while the real world had moved elsewhere on a different course. Perhaps this limited and tentative sense of foreground frames experience for those in areas affected by conflict and crises.

Why was my ability to engage with the current reality disabled? Why did my thinking and reflexes become unsituated? How did I end up being absorbed into a virtual world? It started out as the familiar world in which I participated in meetings and interactions with students and colleagues. But, over time, I began to find it more and more difficult to invest online interactions with attention and presence, with meaningful closure or ontological consequences, rather than feeling that it was merely generating stress and farce. I found myself doubly unsituated. I seemed unsituated from reality on the one hand, and also seemed to find myself becoming progressively unsituated from

the virtual/online/tech-enabled space on the other.

I had experienced technology-mediated working and teaching–learning for over a decade prior to March 2020, using online learning management system discussion and Zoom for engaging with students, designing and conducting classes and courses for meaningful engagement, interacting with colleagues, and managing large-scale multi-sited projects. Goodyear (2006) has noted the challenge of space and time experienced in online and distance learning. As a pedagogue, I was familiar with strategies to create and secure attention. I knew the importance of a building community of learners and that, contrary to popular belief, teaching online is as, if not more, time consuming. I also knew it is possible to conduct work meetings of large teams over Zoom or Webex—share presentations and chat. These had taken place when I was situated in the world: able to move around, meet colleagues and students occasionally, have a workplace, and a rhythm of to-and-fro between work and life.

But now, the challenge of forging real, meaningful coordinated action had grown and was demanding much more energy and time. The challenge was not merely to do with the aspects of dialogue and exchange, that is, communication. Synthesis, convergence, decision making, and action were all becoming increasingly difficult to realise. The pandemic placed us in isolated boxes, arresting our movement to the home—effectively, unsituating us. We were enabled to interact and work with each other only through technologically mediated means. This offered us interaction without material co-presence. However, by being immobilised in our homes, we were no longer situated or occupying place. ICT offered multi-modality in engagement. We realised the importance of voice over the visual but this missed the non-vocal and visual aspects of being co-located, experiencing place, and each other’s presence.

Although it seemed that the medium was suited to sharing print, even favouring literate modalities, it also seemed that induction into academic literature and academic genre was limited by a limited access to educational and scholarly cultures—especially how they manifest in unique material artefacts (particularly the blackboard, but also books and print materials). For our students, these were now being mediated mostly through smart phone screens. Corridors that serve to remind us of place and presence were missing completely. Disciplinary cultures were barely accessible to students who found themselves receiving content and having simultaneously, a surplus of digitally mediated international conferences and seminars—which gave access, but also limited experience of disciplinary enactments. I now examine this experience of crisis made uniquely possible by the pandemic in terms of presence, place, and situation to make visible these taken-for-granted features of the substratum of education.

Presence, place, situation: The tacit substratum of education

In institutional forms of education with which we are familiar (the face-to-face classroom on campus)—presence, place, material culture, and situation—are aspects of a taken-for-granted, tacit substratum essential in enabling educational interactions and processes to have effects and become experiences with intended desirable consequences. Chattaraj and Vijayaraghavan (2021,

p. 348) noted that the “perception of space, as constituted by recursive relationship between spatial and social interactions” was disrupted during COVID when students experienced immobility. Space in this sense is not merely a “resource” of higher education institutions or a “stage” where interactions are enacted. On the contrary, space and social interactions co-constitute each other. The shock (im)mobility (Xiang & Sørensen, 2020) that altered access to physical higher education can be related to a range of experiences voiced by students: a sense of temporariness, lack of intimacy, being uneasy about engaging with class from home, senses of loss and of monotony (Chattaraj & Vijayaraghavan, 2021). Gomes (2022) noted its effect on students’ sense of temporality, disabling their ability to anticipate the future and their senses of purpose and time.

Research on distance and online learning prior to the pandemic has noted the difficulties posed by such lack of access to learning space as a key aspect of learners’ experiences as they struggled to get into the mind space of a programme without the physical campus to scaffold this transition (Goodyear, 2006, Marsden 1996). Especially where adults are concerned, there is far greater attention given to the social and cultural aspects of higher education learning, drawing attention to the fact that this learning is not primarily or merely content transfer or knowledge transmission. The social refers not only to interaction, but also to embodied material co-presence in distinctive physical spaces. Arguably, theorising learning in distance learning programmes has drawn attention to this core aspect of the learning process, and requiring that if embodied co-presence is not possible or a feature of the medium, then some other strategy or technique would be necessary to create co-presence. Affordances of ICT and online access provide new possibilities of designing learning environments that can scaffold authentic presence and engagement.

In normal remote/distance/online learning, learners and teachers are situated in their own contexts. They may not have embodied co-presence by co-locating in the same place, but they do occupy a place from where they act on the world and from where they cultivate their senses of future and purpose. The emergency remote/distance/online learning environment caused as a response to COVID-19 did not merely lock us out of our familiar higher education space. COVID-19 lockdowns induced shock (im)mobility—an acute disruption that affects human activity (Xiang & Sørensen, 2020)—and we were placed in an emergency remote learning environment for which learners and teachers did not have scripts (Chattaraj & Vijayaraghavan, 2021). The state of being acutely immobile progressively altered the experiences of learners and teachers. Studies have noted learners reporting feelings of lethargy, procrastinating, being unable to focus, feeling apathetic, being unmotivated to do school work. These changes were not only to do with habits of being and attending to work, but extended into senses of purpose and time: having less routine, losing concept of time, each day blending into the next, and time feeling meaningless (Sharaivska et al., 2022, Yazgan, 2022). Yazgan (2022) further noted that students developed avoidance and lack of sincerity. Following Xiang and Sørensen’s (2020) conception of *shock mobility*, Gomes (2022) called this *shock temporality* caused by the pandemic, leading to students feeling that their professional and personal agendas and aspirations were in suspension.

Conclusion

Research about the impact of the pandemic on learning and education during the two years of full or partial lockdown, and subsequently, is systematically revealing a number of issues of grave concern regarding how, as a society, we are able to respond to emergency situations—especially with regard to our ability to address existing inequalities, which as research shows, further exacerbate and are exacerbated during crises. Research on schooling in the Global South related to the COVID crisis (especially in South Asia and Africa) has shown underutilisation of the lessons that were beamed via radio and television, and also the impact of teacher contact on adolescents' perceptions of learning gains. It has also shown that girls were affected more than boys, and that students in private schools received more educational opportunities compared to their peers in government schools (van Cappelle et al., 2021). Greater flexibility was needed in the ways devices were used and the extent to which the home was used as a resource for learning.

This research draws attention to the need to cultivate greater familiarity among both students and teachers of the variety of ways in which they can come together in person and via other media, and in other spaces, to engage with education. It also draws attention to the need for a wider range of educational aims towards which institutions need to be geared. We still need to understand and engage with the ongoing effects of the COVID crisis because we receive batches of students who were deeply affected by the emergency learning situations into which they were thrown, and from which they have not yet healed. Young graduates in our institutions are manifesting myriad mental health issues—unable to turn in assignments on time, unable to listen in class (much less read alone or come to class), apathetic about meetings and attending lectures in person, and asking if they may just login online. These are indicative of deeper existential crises induced by a two-year-long shock state (experiencing a loss of sense of time and purpose) during a crucial period of adolescence having deep impact on habits of being and doing. Research and conceptual frameworks to understanding the state of mind and being of our students, and the implications for the conduct of higher education is imperative.

Our ability to address such shortcomings in response in future crises depends on being able to withstand shock and resist being co-opted into the cult of business as usual. For this, finding a sense of place and situating oneself and others is essential. New technologies will continue to play a role in engagement and response. They will probably grow in relevance as climate change brings unexpected new crises that could disrupt the organisation of higher education as we know it, altering co-access to spaces of higher education by students and faculty. We must develop strategies, pedagogies, and discourses that enable us to situate and relate through the technologies and the tasks. Rather than thin mediation of face-to-face classrooms in which we ride on co-presence to evoke authentic engagement, we will need to develop thick mediation for remote learning that can create cognitive states akin to co-presence or being situated, of being able to be attentive. Exploring how students' own local contexts as place could be central, and immediate contexts be leveraged into the pedagogic process to provide a locating experience would be worthwhile. Classroom discourse is also likely to shift towards greater student voice to enable a

synthesised shared location to which the learning community and theory must relate. We need to experiment more with technologies, pedagogies, and learning resources. Educational goals are likely to shift and evolve in relation to the learning experiences, and we need to explicitly work to achieve goals such as metacognition, identity, location, and agency of learners.

References

- Carroll, L. (1882). *Through the looking glass, and what Alice found there*. Macmillan.
https://www.google.co.za/books/edition/Through_the_Looking_glass_and_what_Alice/IIIVAAAACAAJ?hl=en&gbpv=1&printsec=frontcover
- Chandran, M., Sharma, P., Kannamma, E., Gajinkar, A., Paulose, A. (2021). *Impact of the COVID-19 pandemic on education and teaching in Asia-Pacific: Future of work in education*. Education International-Asia Pacific. <https://tinyurl.com/2fv9ax88>
- Chattaraj, D., & Vijayaraghavan, A. P. (2021). Why learning space matters: A script approach to the phenomena of learning in the emergency remote learning scenario. *Journal of Computers in Education*, 8(3), 343–364. <http://dx.doi.org/10.1007/s40692-021-00182-z>
- Coetzee, J., Neneh, B., Stemmet, K., Lamprecht, J., Motsitsi, C., & Sereeco, W. (2021). South African universities in a time of increasing disruption. *South African Journal of Economic and Management Sciences*, 24(1), Article 3739. <http://dx.doi.org/10.4102/sajems.v24i1.3739>
- Fouche, I., & Andrews, G. (2022). “Working from home is one major disaster”: An analysis of student feedback at a South African university during the COVID-19 lockdown. *Education and Information Technologies*, 27(1), 133–155. <https://doi.org/10.1007/s10639-021-10652-7>
- Gomes, C. (2022). Shock temporality: International students coping with disrupted lives and suspended future. *Asia Pacific Education Review*, 23(2), 527–538. <http://dx.doi.org/10.1007/s12564-022-09793-2>
- Goodyear, P. (2006) Technology and the articulation of vocational and academic interests: Reflections on time, space and e-learning. *Studies in Continuing Education*, 28(2), 83–98.
<http://dx.doi.org/10.1080/01580370600750973>
- Government of India. (2020). *National education policy, 2020*.
https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- Harunavamwe, M., & Ward, C. (2022). The influence of technostress, work-family conflict, and perceived organisational support on workplace flourishing amidst COVID-19. *Frontiers in Psychology*, 13.
<https://doi.org/10.3389/fpsyg.2022.921211>
- Liu, R. (2021). Disparities in disruptions to postsecondary education plans during the COVID-19 pandemic. *AERA Open*, 7(1), 1–19. <https://doi.org/10.1177/23328584211045400>
- Marsden, R. (1996) Time, space and distance education. *Distance Education*, 17(2), 222–246,
<https://doi.org/10.1080/0158791960170203>
- Menon, K., & Motala, S. (2021). Pandemic leadership in higher education: New horizons, risks and complexities. *Education as Change*, 25(1), 1–19. <http://dx.doi.org/10.25159/1947-9417/8880>

- Motala, S., Sayed, Y., & de Kock, T. (2021). Epistemic decolonisation in reconstituting higher education pedagogy in South Africa: The student perspective. *Teaching in Higher Education*, 26(2), 1–17. <http://dx.doi.org/10.1080/13562517.2021.1947225>
- Nigudkar, M. (2022). A classroom of windows and names: Reflections on online teaching during COVID-19. *The Indian Journal of Social Work*, 83(1), 11–28. <https://tinyurl.com/bdedfy6h>
- Nwosu, C. O., Kollamparambil, U., & Oyenubi, A. (2022). Socio-economic inequalities in ability to work from home during the coronavirus pandemic. *Economic and Labour Relations Review*, 33(2), 290–307. <https://doi.org/10.1177/10353046221085598>
- Otu, M. N., Ehiane, S. O., Maapola-Thobejane, H., & Olumoye, MY (2023) Psychosocial implications, students integration/attrition, and online teaching and learning in South Africa's higher education institutions in the context of COVID-19. *Sustainability*, 15(8), Article 6351. <https://doi.org/10.3390/su15086351>
- Pokhrel, S., & Chhetri, R. (2021), A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(3), 234763112098348. <http://dx.doi.org/10.1177/2347631120983481>
- Prabhu, M. N. B., Bolar, K., Mallya, J., Roy, P., Payini, V., & Thirugnanasambantham, K. (2021). Determinants of hospitality students' perceived learning during COVID-19 pandemic: Role of interactions and self-efficacy. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 30, 1–12. <https://www.sciencedirect.com/science/article/pii/S1473837621000368>
- Roy, S., & Brown, S. (2022). Higher education in India in the time of pandemic, sans a learning management system. *AERA Open*, 8(2), 1–15. <http://dx.doi.org/10.1177/23328584211069527>
- Sharaievskaya, I., McAnirlin, O., Browning, M., Larson, L., Mullenbach, L., Rigolon, A., D'Antonio, A., Scott, C., Thomsen, J., Metcalk, E., & Reigner, N. (2022). Messy transitions: Students' perspectives on the impacts of the COVID-19 pandemic on higher education. *Higher Education*, 1–18. <http://dx.doi.org/10.1007/s10734-022-00843-7>
- Singaram, S., & Mayer, C. H. (2022). The influence of the Fourth Industrial Revolution on organisational culture: An empirical investigation. *Frontiers in Psychology*, 13. <http://dx.doi.org/10.3389/fpsyg.2022.919157>
- Singh, U. G., Watson, R., Nair, C. S. (2022). Comparative reflections of Australian and African female academics on working from home during COVID-19. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.944384>
- Smith, J. A., & Osborn, M. (2015). Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British Journal of Pain*, 9(1), 41–42. <http://dx.doi.org/10.1177/2049463714541642>
- Tamrat, W. (2021). Enduring the impacts of COVID-19: Experiences of the private higher education sector in Ethiopia. *Studies in Higher Education*, 46(1), 59–74. <http://dx.doi.org/10.1080/03075079.2020.1859690>

- Thompson, L., & Christian, C. (2022). “. . . It just broke me . . .”: Exploring the psychological impact of the COVID-19 pandemic on academics. *BMC Psychology*, 10, Article 289. <http://dx.doi.org/10.1186/s40359-022-01008-y>
- UNESCO Institute for Statistics. (2022). *COVID-19 education responses: Country dashboard*. <https://covid19.uis.unesco.org/global-monitoring-school-closures-covid19/country-dashboard/>
- van Cappelle, F., Chopra, V., Ackers, J., & Gochyyev, P. (2021). An analysis of the reach and effectiveness of distance learning in India during school closures due to COVID-19. *International Journal of Educational Development*, 85(3), Article 102439. <http://dx.doi.org/10.1016/j.ijedudev.2021.102439>
- van der Ross, M. R., Olckers, C., & Schaap, P. (2022). Engagement of academic staff amidst COVID-19: The role of perceived organisational support, burnout risk, and lack of reciprocity as psychological conditions. *Frontiers in Psychology*, 13. <http://dx.doi.org/10.3389/fpsyg.2022.874599>
- Van de Velde, S., Buffel, V., van der Heijde, C., Çoksan, S., Bracke, P., Abel, T., Busse, H., Zeeb, H., Rabiee-khan, F., Stathopoulou, T., Van Hal, G., Ladner, J., Tavoracci, M., Tholen, R., & Wouters, E. (2021). Depressive symptoms in higher education students during the first wave of the COVID-19 pandemic: An examination of the association with various social risk factors across multiple high- and middle-income countries. *SSM: Population Health*, 16. <https://doi.org/10.1016/j.ssmph.2021.100936>
- Walters, C., Mehl, G. G., Piraino, P., Jansen, J. D., & Kriger, S. (2022). The impact of the pandemic-enforced lockdown on the scholarly productivity of women academics in South Africa. *Research Policy*, 51(1). <http://dx.doi.org/10.1016/j.respol.2021.104403>
- Xiang, B., & Sørensen, N. (2020). *Shock mobility: Long-term impacts of the COVID-19 pandemic and lock-down* (Policy brief). Danish Institute for International Studies. <https://www.diis.dk/en/research/shock-mobility>
- Yazgan, Ç. Ü. (2022). Attitudes and interaction practices towards distance education during the pandemic. *Education and Information Technologies*, 27, 5349–5364. <https://doi.org/10.1007/s10639-021-10843-2>

Notes on the author

Padma M. Sarangapani is Professor of Education and Chair of Centre of Excellence in Teacher Education at the Tata Institute of Social Sciences, Mumbai, India.

Address for correspondence

psarangapani@tiss.edu

Education policymaking during the COVID-19 pandemic in India and South Africa: Implications for equity and quality

Rekha Pappu

Tata Institute of Social Sciences

Yusuf Sayed

Cambridge University

Abstract

Hindsight has made it clear that policymaking during the COVID-19 pandemic was hasty and reactive; it relied on limited evidence but seemed to largely align itself with the needs of the privileged. This manner of policymaking has had implications for various sectors, including education, and on various people, primarily the impoverished. Our paper returns to the context of the pandemic in India and South Africa to provide a grounded account of the nature of the education policies that emerged in these two countries of the Global South during the pandemic. The overarching questions that the paper addresses in relation to India and South Africa are as follows: “What education policies and education choices were made during the COVID-19 pandemic?” “What ramifications have these choices and policies had on equity and quality in education?” The paper examines several education policies introduced in both countries during the pandemic for modifying the academic calendar, revising the curriculum, adopting new pedagogic and assessment strategies as well as altering the role of teachers. An examination of the manner of documentation and analysis of education policies during the pandemic can go a long way in shaping a response to future crises in education wherein neither equity nor quality considerations are compromised.

Key words: education policies, pandemic, policymaking, equity, quality

Pappu, R., & Sayed, Y. (2024). Education policymaking during the COVID-19 pandemic in India and South Africa: Implications for equity and quality. *Southern African Review of Education*, 29(1), 100–115.

Introduction

The COVID-19 pandemic profoundly impacted social, political, and economic realities worldwide, forcing governments to respond swiftly with policies intending to minimise the immediate consequences while weighing future options. The pandemic illuminated and exacerbated social inequalities, further marginalised the impoverished, and plunged fragile economies of the Global South into disarray. In education, decisions the world over were made rapidly, often depending on the patchy and limited evidence available: whether about closing down or re-opening educational institutions, about pedagogies, teacher professional development, support and well-being, modes of assessments, entrance exams or use of new technologies. The choices made in education impacted the impoverished and the vulnerable most adversely in the initial shutdown and later reopening of educational institutions due partly to inequities in access to technology and cultural and material resources necessary to manage the crisis. The pandemic not only resulted in a loss of academic learning that further deepened learning inequities but also highlighted the absence of social and emotional learning, care, and empathy for both teachers and learners in education.

This paper returns to the context of the pandemic to reflect on specific aspects of education in India and South Africa to provide an account of the nature of the education policies that emerged in these two countries of the Global South during the pandemic. The overarching questions that the paper addresses in relation to the two countries are as follows: “What education policies and education choices were made during the COVID-19 pandemic?” “What ramifications have these choices and policies had on equity and quality in education?” In relation to these questions, the discussions in this paper are restricted to policies meant for school education and not the sector as a whole. This paper is a reflective piece on education policy choices in India and South Africa drawing largely on a review of policies and guidelines issued to schools by key policymaking and regulatory bodies of the government made available in the public domain. Where appropriate, it draws on reports of national governments and organisations such as UNESCO.

The paper begins with a brief introduction to India and South Africa before proceeding to specifically discuss the education policy response in each country to the COVID-19 pandemic. We first present a more general country contextual overview, followed by a brief description of the response in each country to COVID-19 in general, and education more particularly.

India and South Africa: Brief country contexts

With a land area of 2,973 thousand square kilometres and a population of 1366.40 million, India is the largest democracy in the world. However, the democracy index (which ranges between 0 and 10, with the index of 10 indicating that the country is most democratic) tellingly revealed that India had slid down to 6.9 in 2019 from 7.8 in 2014, highlighting notable flaws in its structure and functioning as a democracy (Sarangapani & Pappu, 2021). The rich diversity of India in terms of its terrain, language, culture, cuisine, and religion envelops deep inequalities. A 2022 report on the

state of inequality in India tracked the multidimensional nature of the country's inequality while also acknowledging that,

Inequality is far more acute in India due to its ethnic, religious, class and caste-based differences that influence community experiences of inequality. These identity markers seldom operate in isolation, thereby making an intersectional approach to inequality all the more urgent in the Indian context. Historically, colonisation introduced social and economic inequality that was carried forward even after independence. (Kapoor & Duggal, 2022, p. 15)

All these inequalities were further exacerbated with the COVID-19 pandemic.

The myriad impact of the lockdown on various people groups in India was evident right from the beginning when lockdown was imposed in the country on 24 March 2020 with about four hours' notice. Much has been written about the struggles that followed shortly after the announcement, particularly of migrant workers forced to travel by foot and any other means available in the face of suspension of all kinds of transport services in the country. This mass movement was headlined by a newspaper as the "greatest exodus since partition" (The Guardian, 2020). The lockdown had four phases that extended between 24 March 2020 and 31 May 2020. India witnessed more than 10 million COVID cases in the period between January 2020 and October 2021, with 155,000 COVID deaths reported in this time. In fact, India is regarded as the second most impacted country in the world after the United States but with overall, fewer deaths (UNICEF & UNESCO, 2021).

South Africa, with a population of about 57 million, is located on the southernmost tip of Africa, covering an area of 1,221 thousand square kilometres. The country has a rich ethnic diversity and has 11 official languages. Like India, it has a long colonial history, having first been colonised by the Dutch, then the British, followed by the gruesome years of apartheid that ended in April 1994 with its first democratic elections. The World Bank (2018, p. 60) contended that "South Africa remains a dual economy with one of the highest inequality rates in the world, with a consumption expenditure Gini coefficient of 0.63 in 2015." In 2019, South Africa was listed as the most unequal country in the world followed by Namibia, Suriname, and Zambia. Whilst it made its transition to democracy more than 25 years ago, the country has many interlocking crises including crises of health, such as HIV and tuberculosis; crises of environment, such as intermittent drought; crises of consumer goods, such as power outages and intermittent water shortages; and crises of politics, such as gross social and economic inequality, unemployment, and corruption. All these crises weakened the country's response to the COVID-19 pandemic.

In the South African context, the then President, Cyril Ramaphosa, announced that South Africa would be instituting a countrywide lockdown commencing 18 March 2020, similar to most other countries globally. This lockdown included a stay-at-home order for the entire population, with restrictions placed on movement except for essential goods and services. The economy came to an almost complete halt, leading to the demise of many small-to-medium business enterprises and adding about three million more people to the already high unemployment rate. By September 2020, South Africa, despite having stopped the testing for COVID-19 at many public hospitals, had one of the highest infection rates in the world.

In South African education, the COVID-19 pandemic comprised several phases. The total lockdown phase, which came into effect 26 March 2020, saw the closure of all schools and the suspension of all in-person school activities, including school feeding schemes. Educators were expected to support home learning and provide alternative forms of school feeding. In the second phase (May 2020 to September 2020), restrictions were gradually reduced accompanied by the phased or rotational return of learners by grade. Priority was given to learners in the terminal phases of schooling (Grade 9 and Grade 12). The third phase (October 2020 to December 2020) continued with the phased return strategy so that by 1 February 2021, the state returned to full in-person attendance.

The schooling systems in pre-COVID India and South Africa

The student population in India across primary, upper primary, secondary, and senior secondary levels was 240 million just before the countrywide lockdown was imposed in 2020. The total number of schools—including government, government-aided, private unaided, and others—was 1.5 million; the total number of teachers estimated at 8.5 million. Most schools were close to ending the 2019/2020 academic year when the pandemic-induced lockdown was introduced. It is estimated that as a result of school closures, not only was student learning adversely affected, but the midday meal programme also stopped, impacting about 115 million children who ran the risk of high malnutrition (Murali & Maiorano, 2021).

The *School Realities* report (Republic of South Africa, 2019) released by the country's Department of Basic Education, suggested that by the end of 2019, there were 13.04 million learners in 24,998 schools (including public and independent schools) and 444,857 teachers in the country. The highest proportion of learners were in the Foundation Phase (Grades 1–3) and the lowest in the Further Education and Training Phase (Grades 10–12); there more males than females in the schooling system, with males being the most in Grade 1 and females being the most in Grades 11 and 12.

As noted earlier, initial education policy responses to the pandemic in both India and South Africa, as in most parts of the world, were to quickly close schools. Soon after, when the discourse turned towards continuing education in the remote mode, an altered education calendar was issued in the two countries involving various forms of phased and rotational access to schooling. A slew of policy guidelines characterised state responses to educational provisioning including trimming of curriculum, modifying the role of teachers, using digital technology for teaching and learning, modifying modes of assessment, and introducing home learning. The sections that follow focus on some of the policies framed during the pandemic in the two countries to gauge the nature of response that the COVID-19 crisis elicited from policymakers.

Education calendar adaptation: Changing the rhythms of education

In India, under the aegis of the Ministry of Human Resource and Development, the National Council for Educational Research and Training (NCERT) developed an alternative academic calendar (AAC) for schools—for all subjects and all classes. The AAC was shared separately in two parts for primary and secondary levels in April 2020, barely a few weeks after school closure. The speed with which the calendar was issued indicated that the education policymakers prioritised educational “continuity” over a reflective process of stock taking involving all stakeholders. In the Foreword to the AAC document, NCERT (2020, p. v) explained the rationale for producing the alternative calendar: “It is necessary because in the present environment of stress we have to not only keep our children busy but also maintain continuity of their learning in their new classes.” All schools in the country were expected to follow the AAC, which included week-wise plans of activities linked to themes chosen from the textbook and syllabus. The AAC was initially prepared for a period of four weeks but when the lockdown period was extended, guidelines for another eight weeks were provided. The central government claimed through its press briefings and publications that it was in regular consultation with states and union territories and had introduced various measures to ensure no loss of education. Ground reports, though, suggested confusion among government schoolteachers between March and May 2020 about alternate arrangements for teaching before official instructions required a complete shift to an online mode of teaching (Batra et al., 2021; Oxfam India, 2020)

The “unlock” approach through the Indian government’s orders began from 1 June 2020 but the partial reopening of schools was made possible only through the Unlock 6 guidelines of the Ministry of Home Affairs from 1 November 2020 onwards. The Ministry of Education laid down the standard operating procedures for the reopening of schools, with guidelines for health, hygiene, and other safety protocols. Given the kind of facilities available at schools, more than three-quarters of the schools were unable to follow those procedures. Only a few Indian states such as Andhra Pradesh, Assam, Goa, Uttarakhand, and Uttar Pradesh reopened schools after permission to do so (UNICEF & UNESCO, 2021). And even in these states, government schools reopened only for students in Grades 9 and 10.

In South Africa, the first most notable policy response of the South African government in relation to education was the nationwide closure of schools. The closure of schools was total, shifting all learning to the “home.” Schools and teachers were expected to send workbooks and lessons to the home using technology and, if necessary, through post. The educational assumption was that students could continue to learn at home using technology to interact with teachers. As various commentators have noted, this assumption of total closure was driven by a narrow reading of the evidence base, and by the erroneous assumption that homes were all stable, middle class, and nuclear, espousing the necessary cultural capital for meaningful epistemic engagement.

Strict lockdown was followed by phases in which the state moved towards forms of rotational and phased schooling. These assumed various forms and included staggered and phased returns, prioritising the return of learners at the terminal ends of their education. This meant that in the

primary schools, Grade 7 was the first to return and in the high schools, Grade 12 was the first to return. Restricted return also included rotational entry in which same grade learners attended on different days. In other words, of the total class, some learners attended one day and the other learners on alternating days. Thus, learners attended partial school in a typical week, with the assumption of home learning on the days not in school.

The conditions of return in South Africa were based on centrally dictated norms, for example, learners could only return to school if there was clean running water, sufficient personal protective equipment for learners and teachers, a sufficient stock of hand sanitiser and sufficient class space for social distancing of learners. These criteria—predicated on middle-class schooling (Sayed et al., 2021)—assumed that each school had the resources and capacity to ensure the meeting of such “norms” to mitigate the effects of the virus. But this was not the case.

Curriculum modification and adaptations

Curriculum revision during the pandemic was an undertaking common to both India and South Africa. This took the form of trimming and cutting curriculum content to what was considered essential, driven by a narrow conception of learning in which breadth and depth of learning was reduced to that which states deemed vital—resulting in adverse consequences for learners. The curriculum modification process motivated by the crisis allowed some states to nurture their particularistic, and in some cases chauvinistic, nationalist agendas where, as in the case of India, curriculum content at variance with government ideology was removed in the name of “rationalising” the curriculum for the “good” of learners and learning.

In India, the AAC released in April 2020 by NCERT to coincide with school closures, in fact, initiated the actual process of curriculum modification. Themes to be taught were truncated through the AAC although most of the learning outcomes were still to be delivered. In the context of the upheaval wrought by the pandemic, 30% of the curriculum was removed in an effort to reduce the burden on learners. The reason given for excluding certain topics from textbooks was that they either overlapped with others or were “irrelevant.” However, a striking feature about the exercise was that most of the dropped topics were those that were inconvenient for the ruling Bhartiya Janata Party. These included lessons on the Gujarat riots, Mughal courts, Emergency, Cold War, and the Naxalite movement, among others. As pointed out in the report produced by Transforming Education for Sustainable Futures on the impact of COVID-19 on education and livelihoods:

In the garb of reducing curriculum load on students during the period of stress and anxiety, the CBSE [Central Board of Secondary Education] deleted critical content from the social science textbooks. The chapters deleted from the syllabi include critical constructs such as, secularism, citizenship, gender and caste, federalism, democracy and diversity, nationalism, India’s relations with its neighbours, and the growth of local governments in India. The Maharashtra government took similar measures noting that “farmer suicides” is not compulsory to be taught. (Batra et al.,

2021, p. 16)

The curriculum rationalisation process that began during the pandemic continued in 2021–2022 leading to further excisions, especially from social science textbooks (Barman, 2022). Given that the revised textbooks had been printed for use in the academic year 2023/2024, the issue led to heated debates in parliament with members of the opposition criticising the move (India Today, 2023). Widespread criticism notwithstanding, the process of textbook revision has continued to date in the manner initiated during the pandemic.

Yet another notable feature of the approach adopted in India for the conception and delivery of curriculum during the pandemic was that it was highly centralised. The processes laid down by various policy guidelines for curriculum modification left no scope for meaningful teacher participation in the process of curriculum rationalisation. As pointed out by a government schoolteacher, “A teacher knows what her/his students will understand, what is the nature of knowledge that children will respond to. But when the schoolwork is mass produced it does not take into consideration diverse learning levels of children” (cited in Batra et al., 2021, p. 16). However, no effort was made to solicit teacher understanding of learners to make the curriculum meaningful to the learners.

In South Africa, like in India, “curriculum trimming” as it became known pruned the curriculum to that which was deemed essential, focusing only on teaching “basic concepts” in various learning areas and in high schools. This response to curriculum, whilst welcomed in a crowded curriculum, begs key questions about what is deemed essential, who decides, and the likely consequences. The trimmed curriculum ignored key aspects of education such as psychosocial learning; a narrow, basic approach was privileged. Furthermore, at the discretion of school management teams, learners were allowed to drop subjects and pick them up again in 2021, when it was argued that gaps needed to be addressed. Curriculum trimming in South Africa reflected a mode of centralised policymaking during crisis done in haste and without teacher involvement.

Lockdown pedagogy and online pedagogy

In both countries, remote emergency teaching and learning during lockdown took the form of online teaching and learning, the default pedagogy during the crisis. Emergency policy dictated that teachers switch to remote and online modalities to continue teaching and learning, despite difficult contextual factors such as lack of access by the majority of the impoverished learners (and teachers) in the country.

It was evident from the very beginning when NCERT in India introduced the AAC that a key feature of the policy approach towards continuing education was the introduction of digital technology and social media tools for remote teaching. Subsequent to the introduction of the alternative calendar, in July 2020 the Ministry introduced the *PRAGYATA Guidelines on Digital Education* (Government of India, 2020a). The *PRAGYATA Guidelines* included eight steps of online/digital learning: plan, review, arrange, guide, yak (talk), assign, track, and appreciate.

These steps were intended to guide various aspects of online and digital education—the use and duration of screen time, inclusion of all students, conducting of offline activities, physical and mental well-being of students—drawing upon and unifying digital resources available on platforms such as DIKSHA, SWAYAM, and IITPAL. The *PRAGYATA Guidelines* as well as the *Students Learning Enhancement Guidelines* (Government of India, 2020b) were prepared by “experts” drawn from NCERT, National Institute of Education Planning and Administration, and CBSE. This approach, like previous ones involving the preparation of the AAC, neglected the involvement of other stakeholders such as students, teachers, parents, teacher unions, educationists, education researchers, or representatives of civil society. As pointed out by a critical voice:

The hurriedness to conduct online classes and the impending pressure on the school management and educators could be attributed to the fear of missing out and the need to occupy children while elders work from home. The pressure mounting from parent-teacher associations and aggressive marketing by conference software brands regulate(d) the live classrooms. (Cherian, 2021, p. 13)

While the guidelines were detailed with a clear directive that no child was to be left behind, they were far removed from on-the-ground realities. As reported by the Indian Ministry of Education itself in Parliament, nearly 30 million children did not have a digital device to access online education during the pandemic (Kapur, 2021). Various other studies and reports have captured the entire gamut of struggles faced by both teachers and learners in their efforts to adapt to the online teaching mode adopted during the COVID-19 pandemic (Batra et al., 2021; Cherian, 2021; Oxfam India, 2020; Singh et al., 2020; UNICEF & UNESCO, 2021). Challenges included the lack of access to digital devices; absence of digital literacy among teachers, students, and parents; lack of internet connectivity; lack of access to a space conducive for teaching and learning; extended power cuts; difficulty concentrating on online lessons; and the inability in many instances of students to decode instructions for assignments and to upload as required. Batra et al. drew attention to yet another difficulty emerging from online teaching:

Language also emerged as a major barrier for children during online classes. According to the NCERT Learning Enhancement Guidelines (2020), the major online platforms used in schools are: WhatsApp, Google Classroom, Google Meet, and G Suite. None of these have easy provisions for the use of regional languages. Children from marginalised sections of society are most affected also because of the limitation of diverse language use in online classes. For example, in Odisha, tribal children are taught in tribal languages such as Santali, Ho, Kui and Kolha. It has become very challenging to conduct online classes using these languages, pushing several children to drop out. (2021, p. 12)

In South Africa and many other countries globally, during lockdown as well as during the staggered starts of schooling, alternative methods of teaching and learning occurred. In South Africa, the state utilised multiple pedagogic approaches including online platforms, television broadcasts, and radio programmes. The dominant modality, however, was teaching and learning using computer technology. Many commentators (see Sayed et al., 2021 for a review) noted the

inequities inherent in this approach and the assumptions upon which it rested about the nature of home as a site of learning. In particular, the notion that what was offered in school could be done virtually (synchronously or asynchronously) assumed that learning could be reduced to content exchange, ignoring the sociality of learning (Sayed, in this issue). Even television as a mode of teaching and learning made assumptions about homes as spaces of epistemic engagement with access to such technologies. Even when hard copy resources were made available to learners, there was an erroneous assumption that these could be mediated without the presence of the teacher.

As phased and rotational schooling was introduced, pedagogy shifted to blended learning, that is, a mixture of online and face-to-face learning. Learners attended classes at school two to three days a week and alternated face-to-face learning with online learning on opposite days. This blended approach was initiated to accommodate social distancing measures in classes. And whilst blended learning offered impoverished learners some engagement with teachers, it was misleading, as teacher representatives noted, to assume that learners were engaging in meaningful online and home learning. An equity-focused pedagogic approach would have privileged physical access to those learners who needed such access the most instead of this blended rotational learning as dictated by the state. Again, lack of meaningful teacher involvement reveals the fault lines of a centralised mode of policymaking.

Assessments: Adopting unprecedented modes

The turn towards online teaching and learning necessitated a rethink of the conduct of tests and exams in both countries. Interestingly, in contrast to the usual hype around end-of-term examinations, typically regarded as high stakes, the policy approach during the pandemic was to downplay the importance of these examinations. And in many countries across both the Global North and South, greater emphasis was placed on school- and teacher-based assessment for certification than on externally driven high-stakes examination, although unevenly so in India and South Africa.

In India, for example, online quizzes, project-based learning, virtual labs, and self-paced learning were prioritised in the guidelines issued. However, on the ground, difficulties associated with the online mode of teaching and learning extended to these online assignments as well. It was arguably an acknowledgement of these difficulties that exams and tests conventionally regarded as high-stakes in India were cancelled in 2020. In the following year too, in 2021, alternate arrangements were recommended for assessing student performance in the X and XII grades.

Various examinations boards in India took decisions that were unprecedented. For instance, the CBSE declared that no exams would be conducted for Class X. Instead, assessments would be based on criteria prioritising internal assessments or averages of previously taken examinations. As for Class XII, CBSE initially announced the postponement of exams and later, their cancellation. The Council for the Indian School Certificate Examinations did the same. In fact, in a gesture that draws attention to the significance of the decision, it may be pointed out that Prime Minister Narendra Modi (2021) chose to announce the decision about exam cancellation on social

media with his post on X reading, “Government of India has decided to cancel the Class XII CBSE Board Exams. After extensive consultations, we have taken a decision that is student-friendly, one that safeguards the health as well as future of our youth.” Many state boards also cancelled the examinations for Secondary School Certificate and Higher Secondary School Certificate. Likewise, International Baccalaureate (IB) and International General Certificate of Secondary Education (IGCSE) decided not to conduct exams for Indian schools. IB was to use teacher predicted grades and internal assessment of coursework, whereas IGCSE grades were to be based on portfolios for each course. In putting alternative arrangements in place, the state found substitutes to external high-stakes examinations, including school-based and teacher-based assessments. In fact, these approaches to assessment had already been consistently recommended by many educationists and researchers but had been largely ignored in the pre-pandemic period (Kapur, 2019; Nawani, 2015).

In South Africa, there were two directions of change to assessment. For grades below the National Senior Certificate (Grade 12), there were moves towards a weighting in favour of school-based assessment (SBA). Formative assessment based on the professional judgement of teachers featured more prominently in determining learner progress. For example, SBA for Grades 10–11 increased in weighting from 25% prior to the pandemic (2019) to 60% during the pandemic (2020–2022). In 2023, the SBA component was weighted at 40%. Arguably, the pandemic resulted in a greater shift towards SBA, which has always been a key policy thrust in South Africa (albeit muted in recent times given critics’ view that it is unreliable and inaccurate). During the crisis, South Africa was prepared for greater trust in school-based and teacher assessments, measuring learner progression on work completed in school and as assessed by teachers. Learners in schools were assessed on a reduced curriculum as defined by the annual teaching plans.

The South African government chose not to make any changes to assessment at the Grade 12, school-leaving level. For Grade 12, the government push during the pandemic was to assess the full curriculum content without any changes in assessment modality, privileging high-stakes external examinations and maintaining the SBA component of 25% as before the pandemic. The only concession made to Grade 12 learners was a delay of the formal external examination to enable learners to cover more of the curriculum. This approach was consistent with, as described above, the move by government privileging the return to school of Grade 12 learners. Of note, is the fact that COVID-19 resulted in the South African government, for a while at least, trimming the curriculum and refocusing assessment up until Grade 12.

Teachers: Need, preparedness and support

The initial responses of numerous states globally, exemplified by South Africa, to consult only scientists to determine how best to mitigate the spread of the virus was limiting and revealed a narrow understanding of policymaking and over-reliance on scientific evidence. Meaningful and robust public participation including input from diverse constituencies, teachers in particular, is a

fundamental element of democratic policymaking that was essentially disregarded and even disabled during the COVID-19 pandemic.

In India's periodic press briefings, the government referred to the various policies introduced during the pandemic to ensure continued learning for all children. These included guidelines for parents for home-based education as well as for teacher education institutes. Notably, all newly introduced school education policies for the purposes of dealing with the pandemic invariably required the pro-active involvement of teachers. Yet while these policies outlined what was expected of teachers, they neither conveyed an understanding of the challenges inherent in the new roles of teachers during the pandemic nor acknowledged the additional burden on teachers during the crisis. Conspicuous by its absence from the long list of policies introduced was a policy that should have directly addressed teachers, focusing as much on their responsibilities as their needs.

In the initial phase of the pandemic, as schools closed, teachers were expected to connect with students, and parents, and guardians through the remote mode—either through tele-calls or online. However, the situation turned chaotic for most teachers when summer vacations ended in June 2020. Teachers were given extremely short notice in many parts of the country, and were mandated to return to teaching duties in spite of the fact that restrictions on movement prevailed in various parts of the country and COVID-19 cases continued to escalate. In such a harrowing situation, widespread fear of losing jobs was prevalent, especially among contractual teachers. Teachers faced added pressures of being told to buy laptops or tablets so that online classes would not be disrupted, as had occurred with the use of phones. Teacher efforts to skill themselves to meet the requirements of virtual modes of teaching, which were largely unsupported, led unsurprisingly, to a deep sense of helplessness and frustration. Moreover, their own sense of inadequacy apart, teachers were tasked with ensuring student attendance and participation in online classes. In a scathing critique of the sudden new expectations of teachers, one teacher commented:

Centralised ways of ensuring online learning have homogenised curricular content and pedagogic approaches. As a result, teachers are unable to address the diversity and different developmental levels of children in their classes. Teachers are being coerced into playing a techno-managerial role involving the dissemination of outsourced, teaching-learning materials. The central role of the teacher has become one of keeping records of students who can or cannot access the videos and the worksheets. (Batra et. al., 2021, p. 15)

Teacher autonomy, which had been on the decline in recent decades due to various system “reforms,” was further eroded during the pandemic.

In addition to the challenges that teachers in India experienced as part of the education system, they were deployed at various sites to handle a range of COVID-19 duties—essentially putting their own lives at risk. In the state of Uttar Pradesh, for instance, several teachers deployed for state election duty lost their lives to COVID-19 (Pandey, 2021). Directives were sent to teachers at regular intervals to conduct surveys to collect COVID-19-related information. They were even tasked with checking body temperature, pulse rate, and oxygen levels of people in public spaces

such as airports, as well as collecting fines from those not wearing masks in public (Batra et al., 2021).

The effects of the initial policies during the pandemic reveal a clear lack of understanding by government of the daily realities of teachers and learners in India and South Africa. Successful implementation of *any* policy relies on robust consultations with key stakeholders at the school micro level—teachers and teacher representatives—because this gives teachers, the frontline educators, autonomy and flexibility to act.

The absence of teachers in policymaking in South Africa also extended to lack of support for navigating and managing online teaching. Teachers in South Africa were not provided with access to adequate ICT infrastructure and connectivity for facilitating quality learning, nor were they afforded support for online pedagogy. Not only did teachers lack professional development (PD) support during the pandemic, but they were also not provided with sufficient psychosocial support for their personal well-being. It is noteworthy that many curriculum and teaching and learning recovery programmes initiated by the South African government did not accommodate the needs and well-being of teachers but instead, focused solely on learners.

Successful delivery of the curriculum requires teachers who are committed, motivated, and supported. Teacher PD must form part of a continuing development programme that carries on after initial teacher education, thereby ensuring that teachers receive relevant PD as the basis for the provision of quality education.

By way of conclusion: Some reflections

COVID-19 plummeted the Indian and South African public school systems into further disarray, exacerbating and intensifying existing weaknesses and frailties. Policy responses to education in both countries, India and South Africa, adversely impacted the already severe inequality in these countries by reducing meaningful access to education for impoverished learners. Whilst digital technology may have seemingly sufficed as an alternative to face-to-face teaching and learning during the pandemic, digital modes of education delivery, as this paper has argued, were less than effective given infrastructural inequities, inequities in home and schooling contexts, and inequities in teacher support and preparation. In this way, the policy solution of digital learning and pedagogy became the problem; the policy choices became the mirror reflecting the perilous state of education. Yet the pandemic also produced possibilities for introducing education policies and changes of a kind that had earlier been considered sacrilegious. In particular, trimming the curriculum and revising modes of high-stakes assessments became part and parcel of a new education discourse, albeit not without problems.

Education policymaking during the pandemic suggests several important lessons for the future. First, a key characteristic of education policymaking in India and South Africa has been, as noted in this paper, its centralisation. And in the initial stages, lockdown measures were draconian,

adversely impacting the provision of education in these two countries. And as argued earlier, education policies were drafted by governments with a select group of experts, ignoring education stakeholders. In particular, the deep experiential and practical knowledge of teachers as frontline workers was ignored, along with their professional and psychosocial needs. And so were the views of parents. Policymaking during times of crisis and disruption requires multiple perspectives and a comprehensive understanding of the local context. As pointed out, diversity of voice in the policymaking process is important because it improves the quality of collective judgements; it can legitimise political decisions and thereby encourage public compliance, and it identifies who may be marginalised in the process, mitigating this effectively. It is important to prioritise, enable, support, and respect teachers and listen to their opinions and accounts of their experiences. Input from teachers in policies relating directly to teaching and learning in times of crisis is critical because they are at the frontline of the provision of this public good. But teacher and stakeholder involvement in policymaking should extend beyond crises. The UNESCO & ILO (1966) *Recommendation Concerning the Status of Teachers* underscored the value of teachers and other stakeholders as part of social dialogue in education choice making.

Second, a narrow view of learning post pandemic, as in India and South Africa, that prioritises learning recovery of the basic essentials, important as they are, to the exclusion of learners' psychosocial health and well-being is harmful. Prioritising the affective dimension of learning as part of a holistic understanding of education will enable learners to deal with future crises. It is crucial that psychosocial support and learning be integral to the common curriculum corpus and not delegitimised in favour of basic literacy and numeracy skills. Basic skills acquisition is possible only when learner well-being and resilience are nurtured in education.

Third, schools and classrooms as sites of learning are important spaces of interaction, building relationships, and aiding the sociality of learning. They offer important protective spaces for learners, particularly impoverished learners, and especially females, whose homes do not always serve as safe spaces of learning. The effect of the COVID-19 pandemic on the distribution of midday meals and school feeding in India and South Africa, and the increase of gender-based violence, tellingly reveal the deleterious effects of the closure of education institutions. Understanding that schools are more than spaces for curriculum delivery is essential in managing and mitigating future crises and should have been key to education policy responses during the COVID-19 pandemic.

Fourth, the crisis has offered progressive and innovative education alternatives. The most significant of these has been in the realm of high-stakes assessment. In many contexts, the privileging of school- and teacher- and project-based assessment point to educationally progressive alternatives to the pressure of high-stakes testing, which severely impact the impoverished. Curriculum adaptation and trimming in both countries are positive measures to focus on skills and competences of learners as opposed to merely content, and an unhealthy obsession with syllabus coverage. Such changes made during the crisis will make possible, if retained post pandemic, a strengthening of teacher agency and professional autonomy. Yet, as

Sayed et al. (2021) pointed out, this is unlikely given that government efforts in South Africa and elsewhere post pandemic have been more lesson plan scripting and scripted pedagogy under the guise of learning loss recovery.

This review of select education policymaking during the COVID-19 pandemic suggests, as the economist Jean Drèze (News18, 2020, para. 1) noted about India, “almost a death sentence” for the impoverished. The question is why such choices have been made. Our analysis, resonating with that of Jean Drèze who, in that interview with the Indian television channel, also pointed out that “policies are made or influenced by a class of people who pay little attention to the consequences for the underprivileged” (News18, 2020, para. 3). Policy, as a middle-class settlement, and policy choices as discursively constituted in favour of the privileged, need to be disrupted and challenged. An important starting point is to recognise crises as the confluences and intersections of inequalities straddling class, race, gender, ethnicity, religion, and sexuality. In so doing, according to Batra et al. (2021, p. 27), it is necessary “to problematise the concept of learning crisis rather than view it simplistically as ‘loss of learning’ due to non-attendance of school.”

Simultaneously, the pandemic has also offered a possible progressive alternative policy imaginary. Crises, as disruptions, require education policy choices that mitigate the most inequitable egregious effects of disruption whilst developing education approaches that fundamentally address educational inequities as the necessary condition for building a resilient and just education system that responds more equitably to future crises. Crises as disruptive events are the liminal spaces for social justice in and through education.

References

- Barman, S. R. (2022). *At table reworking school curriculum: 24 with RSS links*.
<https://indianexpress.com/article/express-exclusive/express-investigation-part-4-at-table-reworking-school-curriculum-24-with-rss-links-7980779/>
- Batra, P., Bazaz, A., Shanmugam, A., Ranjit, N., Kaur, H. & Das, R. (2021). *Impact of the COVID-19 pandemic on education, livelihoods and health*. TESF India.
<https://doi.org/10.24943/ICPELHI08.2021>
- Cherian, R. (2021, 27 March). The odd one is “out”: Voices from the classroom. *Economic and Political Weekly*. <https://www.epw.in/engage/article/odd-one-out-voices-virtual-classrooms>
- Government of India. (2020a). *Pragyata: Guidelines for digital education*. Ministry of Human Resource Development. https://www.education.gov.in/sites/upload_files/mhrd/files/pragyata-guidelines_0.pdf
- Government of India. (2020b). *Students’ learning enhancement guidelines*. Ministry of Education. https://ncert.nic.in/pdf/announcement/Learning_%20Enhancement_Guidelines.pdf
- The Guardian. (2020, March 30). *India racked by greatest exodus since partition due to coronavirus*.
<https://www.theguardian.com/world/2020/mar/30/india-wracked-by-greatest-exodus-since-partition-due-to-coronavirus>

- India Today. (2023, April 6). *NCERT syllabus rationalisation gives rise to fresh row: Topics removed and why the syllabus was cut down*.
<https://www.indiatoday.in/education-today/news/story/ncert-syllabus-rationalisation-gives-rise-to-fresh-row-topics-removed-and-why-the-syllabus-was-cut-down-2356572-2023-04-06>
- Kapoor, A., & Duggal, J. (2022). *The state of inequality in India report*. The Institute for Competitiveness.
https://competitiveness.in/wp-content/uploads/2022/05/Report_on_State_of_Inequality-in_India_Web_Version.pdf
- Kapur, M. (2019, October 24). *India's culture of high stakes testing needs to be dismantled*. Quartz India.
<https://qz.com/india/1728666/indias-high-stakes-testing-culture-needs-to-be-dismantled>
- Kapur, M. (2021, August 5). *At least 30 million Indian kids had no way of attending online school during the pandemic*. Quartz India.
<https://qz.com/india/2042509/covid-19-30-million-indian-kids-had-no-access-to-online-school>
- Modi, N. [@narendramodi.]. (2021, June 1). *Government of India has decided to cancel the Class XII CBSE Board Exams. After extensive consultations, we have taken a* [Post]. X.
<https://x.com/narendramodi/status/1399729887020126212>
- Murali, V. S., & Maiorano, D. (2021). *Education during the COVID-19 pandemic in India* (Working Paper No. 352). Institute of South Asian Studies.
<https://www.isas.nus.edu.sg/papers/education-during-the-covid-19-pandemic-in-india/>
- National Council for Educational Research and Training. (2020). *Alternative academic calendar for the primary stage*. New Delhi: National Council for Educational Research and Training.
https://ncert.nic.in/pdf/Eight_Weeks_AAC_Primary-English.pdf
- Nawani, D. (2015). Rethinking assessments in schools. *Economic and Political Weekly*, 50(3), pp. 37–42.
<https://www.epw.in/journal/2015/3/perspectives/rethinking-assessments-schools.html>
- News18 .(2020, 1 May). *Lockdown and labour pain: The demand for MNREGA has never been so strong, says economist Jean Dreze*.
<https://www.news18.com/news/india/lockdown-labour-pain-the-demand-for-mnrega-work-has-never-been-so-strong-says-economist-jean-dreze-2600383.html>
- Oxfam India. (2020). *Status report: Government and private schools during COVID-19*.
<https://www.oxfamindia.org/knowledgehub/oxfamianction/status-report-government-and-private-schools-during-covid-19>
- Pandey, A. (2021, 14 June). How the lives of UP's teachers were risked for an election. *The Caravan*. <https://caravanmagazine.in/health/how-the-lives-of-up-teachers-were-risked-for-an-election>
- Republic of South Africa. (2019). *School realities* (Department of Basic Education Report).
<https://www.education.gov.za/Portals/0/Documents/Reports/School%20Realities%202019%20Final%20.pdf?ver=2020-02-07-101051-330>
- Sarangapani, P. M., & Pappu R. (2021). Education systems in South Asia: An introduction. In P. M. Sarangapani & R. Pappu (Eds.), *Handbook of education systems in South Asia: Global education systems* (pp. 1–26). Springer. https://doi.org/10.1007/978-981-13-3309-5_77-1

- Sayed, Y., Cooper, A., & John, M. V. (2021). Crises and disruptions: Educational reflections, (re)imaginings, and (re)vitalization. *Journal of Education*, 84, 9–30.
<http://dx.doi.org/10.17159/2520-9868/i84a01>
- Singh, A. K., Satyavada, R. S., Goel, T., Sarangapani, P., & Jayendran, N. (2020). Use of EdTech in Indian school education during COVID-19: A reality check. *Economic and Political Weekly*, 40(44), 16–19.
<https://www.epw.in/journal/2020/44/commentary/use-edtech-indian-school-education-during-covid-19.html>
- UNESCO & ILO. (1966). *Recommendation concerning the status of teachers*.
https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@sector/documents/normativeinstrument/wcms_162034.pdf
- UNICEF & UNESCO. (2021). *India case study: Situation analysis on the effects of and responses to COVID-19 on the education sector in Asia*.
<https://www.unicef.org/rosa/media/16511/file/India%20Case%20Study.pdf>
- The World Bank (2018). *Overcoming poverty and inequality in South Africa: An Assessment of drivers, constraints and opportunities*.
<https://documents1.worldbank.org/curated/en/530481521735906534/pdf/Overcoming-Poverty-and-Inequality-in-South-Africa-An-Assessment-of-Drivers-Constraints-and-Opportunities.pdf>

Notes on the authors

Professor Rekha Pappu is faculty with the School of Educational Studies at the Tata Institute of Social Sciences, Hyderabad.

Yusuf Sayed is Professor of Education in the Faculty of Education at the University of Cambridge.

Address for correspondence

rekha.pappu@tiss.ac.in

South–South collaboration during the COVID-19 pandemic: The case of CL4STEM

Tanushree Rawat and Payal Aggarwal
Tata Institute of Social Sciences

Abstract

The COVID-19 crisis brought with it several challenges to field-based interventions in education in the Global South. It affected the functioning of schools and institutions within countries and also affected multi-sited international collaborations. This paper reflects on how one such multi-sited international collaborative project—Connected Learning for STEM (CL4STEM)—negotiated the challenges of COVID-19. CL4STEM is a South–South partnership between Nigeria, Bhutan, Tanzania, and India, to pilot a scalable education technology teacher professional development (TPD) innovation using open educational resources and mobile-based communities of practice to build STEM teachers’ knowledge, attitudes, and practices for higher order thinking with inclusion and equity. The CL4STEM project was designed for scale and sustainability, and drew on principles relevant to TPD reform in the global South: 1) the need for contextualisation and adaptation, 2) maintaining a dialectical linkage of theory and practice for professional learning, and 3) enabling collaborative professional community formation. In response to COVID-19, the project transitioned to an increased use of technology. Mitigation of the challenges on account of the increased engagement with technology and keeping the project on track were made possible through two crucial elements: 1) flexibility and responsiveness, made possible by a focus on fidelity to the guiding principles rather than on product of innovation, and 2) thick technology mediation that fostered deep engagement, trust, dialogue, and a social learning environment and enabled fidelity to principles. We argue that even during crises, deep authentic engagement, and focusing on human elements of mutual trust and respect, can strengthen South–South collaboration for sustainable educational innovation.

Keywords: scaling and sustainability, practice-based pedagogy, Global South collaboration, trust-based non-hierarchical partnership, technology mediation, fidelity to principles

Rawat, T., & Aggarwal, P. (2024). South–South collaboration during the COVID-19 pandemic: The case of CL4STEM. *Southern African Review of Education*, 29(1), 116–133.

Introduction

In the context of the COVID-19 pandemic, neoliberal digitalisation gained momentum with a profit-making agenda taking control over the content and process of education (Sayed et al., 2021). Policies and narratives propagated in response to the pandemic emphasised a narrow set of educational priorities and offered solutions through technical intervention. This kind of techno-education “is reflective of how neo-colonialism continues to hold the Global South in a dependent relationship through the new technologies and new platforms evident during the pandemic” (Sayed et al., 2021, p. 17). Many education systems of the Global South continue to be defined and shaped by ideas from the Global North, their erstwhile colonisers, through aid programmes and global circulation of policy (Sarangapani, 2022). Such reform agendas serve as commonsense—often at the expense of Indigenous institutions and practices, which are objectified as deficit and in need of reform (Sayed & Sarangapani, 2021). Such forms of neocolonialism using deficit arguments regarding institutions and the state are used to justify market-based or over-designed and prescriptive solutions from the Global North, and are brought into teacher education in the Global South (Saavedra & Pérez, 2018). In contrast, South–South collaborations built on horizontal relationships and mutual trust, and which seek to support the development of education systems, could provide an alternative to the hierarchical relationships in North–South collaborations. Trust is one of the basic virtues of Freire’s (1968/2005) notion of liberation, without which the agenda of humanising education can fall prey to mere sloganism and superficial conversations.

This paper is written retrospectively about how Connected Learning for STEM (CL4STEM), a South–South project, was able to successfully navigate the COVID-19 challenges. CL4STEM was developed on a model of collaboration through authentic discussion and respectful critical exchange to strengthen the capacities of secondary school science and mathematics teachers in Bhutan, Nigeria, and Tanzania, with India as the technical lead. It was funded by the Global Partnership for Education-Knowledge and Innovation Exchange (GPE-KIX) grant. Through this project, the Connected Learning Initiative (CLIX), which was originally developed in India for scaling up teacher professional development (TPD), was to be adapted and integrated in the education systems of Bhutan, Nigeria, and Tanzania. CLIX used a practice-based approach and developed a culture of peer professional support through mobile-based communities of practice (CoPs; CLIX, 2020). Through CL4STEM, it was envisaged that university teacher education faculty (henceforth, TEs) in Bhutan, Nigeria, and Tanzania would be the key agents for adapting, contextualising, and integrating CLIX into their education systems. The CL4STEM project award was negotiated and finalised in 2020 and began in April 2021, at the height of the COVID crisis and worldwide lockdowns. Expectedly, this multi-country project faced a number of challenges within countries and between countries’ engagement on account of COVID-related restrictions and problems, and also on account of having to adopt ICT far more extensively than was originally envisioned.

In this paper, we highlight the centrality of the core principles of the project design and of thick mediation in guiding the use of and expectations from ICT and ICT-mediated systems. Our analysis draws on the documentation maintained by all project teams as well as data from interviews. We argue that negotiating extensive technology use and its attendant challenges, as well as addressing other difficulties raised on account of COVID on the ground, required both flexibility and focus. This was made possible because 1) the project kept an overall focus on maintaining fidelity to principles of the innovation over fidelity to the structure of activities, and 2) the project relied on technology mediation that fostered deep engagement, trust, dialogue, and a social learning environment. In this paper, we term such technology mediation *thick technology mediation* because it moves beyond using technology for emergency remote interaction and aims instead to make the educational engagement more authentic and collaborative. Such thick technology mediation foregrounds human elements of trust and dialogue to encourage authentic interactions that are essential for scaling TPD in South–South collaboration.

This paper begins with a short discussion of the case study methodology adopted. It then introduces the project, CL4STEM, and its core design principles: adaptation and contextualisation, linking theory and practice, and facilitating professional learning in collaborative communities. This is followed by analyses through which we present how the project negotiated challenges thrown up by COVID. The analysis is presented around the key principles and the contributions of thick technology mediation. We conclude with reflections on the significance of the core principles for a crisis-resilient scaling-up process in the Global South. We also reflect on how using thick technology mediation to foster deep engagement, trust, dialogue, and social learning enables, and is enabled, by relevant principles for navigating the crisis.

Methodology

Our paper uses a case study methodology to reflect on aspects of South–South project collaboration during the pandemic. A case study “presents an in-depth understanding of the case” (Creswell, 2013, p. 98) by using a range of data types such as documents, observations, and interviews (Merriam & Tisdell, 2015). Using the theory of change, we analysed various documents including project proposals (multiple versions), work plans, notes from meetings, as well as interviews with TEs, researchers, and members of the project governance team from the four partnering universities in Nigeria, Tanzania, Bhutan, and India. Additionally, because it is essential to define the boundaries of the case—for example, a specific place or time (Creswell, 2013)—this paper covers the period from December 2019 until May 2022, which roughly coincides with the COVID pandemic. The GPE-KIX award to the CL4STEM proposal was announced in December 2019. Between December 2019 and December 2020, the proposal and governance arrangements were substantially revised. The project finally commenced in April 2021 with the Ibrahim Badamasi Babangida University-Lapai (IBBUL), Nigeria as the lead institute. The time boundary of the case study from April 2021 to May 2022 was the first phase of the project involving knowledge transfer.

This case is also bounded by the nature of data that were examined. The CL4STEM proposal documents originally submitted and selected for the GPE-KIX award in the pre-COVID period and revised during the COVID phases were compared to find the changes made in the design because of the pandemic. All the other documents examined as part of data analysis were generated in 2021, when CL4STEM was negotiating implementation within COVID-imposed restrictions. Our focus was restricted to data that directly or indirectly impacted the knowledge-transfer phase that took place in April 2021–May 2022. Documents analysed for the case study present the findings pertaining to the time when COVID restrictions were imposed. Interviews with TEs were conducted in the last quarter of 2021, whereas governance team interviews were conducted both in 2021 and in 2023. A total of 57 interviews were analysed, which included interviews with 36 TEs (Bhutan: 15, Tanzania: 10, Nigeria: 11) who stayed on with the project until its completion, 11 members of the India team, and 10 governance team members. Based on the analysis of documents, the two broad themes of impact of knowledge transfer, and COVID-induced changes during knowledge transfer were identified. The interviews were inductively coded on the two themes from document analysis. All participants were assigned codes to anonymise and protect their identities.

CL4STEM: Background and design

CL4STEM is a South–South collaboration between universities in Bhutan, Nigeria, Tanzania, and India focused on professional development of secondary school science and mathematics teachers. IBBUL, Nigeria was the lead, with the Open University of Tanzania and the Samtse College of Education (SCE), Bhutan as partners, and the Tata Institute of Social Sciences (TISS), India as the lead technical consultant. The objective of this South–South consortium was twofold: firstly, to pilot the CLIX model of TPD in newer geographies in Africa and South Asia and secondly, to develop research on scaling and sustaining the innovation after the pilot (www.connectedlearningforstem.org).

The CLIX TPD model involved using ICT and was developed and piloted at scale in four Indian states covering government school teachers of science, mathematics, and English. CLIX TPD involved teachers taking blended learning courses designed around pedagogical content knowledge (Shulman, 1986) principles to promote pedagogies for higher-order thinking. These courses designed and offered by TISS, required teachers to register for three 6-week-long courses, during which they engaged with online educational resources and content, practised in classrooms, and shared their experiences and reflections in mobile-based online CoPs (CLIX, 2020; Thirumalai et al., 2019). Between 2015 and 2018, CLIX TPD was offered to 3,509 government school teachers of mathematics, English, and science working in four states under low resourced conditions (CLIX, 2020). CL4STEM involved piloting this TPD innovation to three new geographies. In addition to the core elements of CLIX, CL4STEM also included knowledge and practice of inclusion in STEM teaching.

The CL4STEM project had three key design features: firstly, the partnership was anchored in each country by a university that had a teacher education department and community of TEs. The TEs were identified as key agents from a long-term sustainability perspective as well as the short term in adaptation and contextualisation of the innovation to each country's context. Secondly, a governance structure was established for all four country leads to meet regularly for collective stock taking, reporting, planning, and reflection; given the multi-country character it was envisaged that this would be a mix of in-person and online meetings. Thirdly, the innovation design for scalability and sustainability identified three core guiding principles: 1) need to adapt and contextualise the innovation, 2) linking theory and practice for professional learning 3) to facilitate professional learning in collaborative communities. These core principles of the CL4STEM project were derived from literature on sustainable educational reform practice and validated in the context of CLIX in India.

Adaptation and contextualisation

Reforms in the Global South that are based on borrowing practices from developed countries fail to bring change in teachers' practices because they are poorly suited to the context of teachers (Johnson et al., 2000). Successful reforms allow local actors to adapt and modify the innovation according to their local context within the bounds of the core principles of the reform (Morel et al., 2019). Such adaptation of innovation requires capacity development of the local users to understand the core principles of the innovation as well as their local context (Coburn, 2003; Klingner et al., 2013, Morel et al., 2019). Such adaptation can lead to scale in terms of transfer of ownership while maintaining fidelity to principles of the innovation (Coburn, 2003).

Linking theory and practice

Brief one-time training models providing the theory or activities that can be readily applied in the classroom fail to conceptualise teachers' knowledge as embedded in their practice and their context. In contrast, a practice-based learning approach provides opportunities to educators to inquire into their practice by connecting it with theoretical ideas (Ball & Cohen, 1999). A practice-based pedagogical approach necessitates teachers and TEs to engage in theory–practice dialectics so that their practice is informed by theory, and reflections on their practice can influence their theoretical understanding (Peercy & Troyan, 2017; Thirumalai et al., 2019). It fosters teacher agency by providing an authentic learning environment (Charania, 2022).

Professional learning in collaborative communities

According to Wenger (1998), learning is a social practice that involves mutual engagement of people in a CoP to make sense of their experiences and the world around them. Participation in CoPs by mutually engaging in a joint enterprise can help in developing teachers' knowledge and practice (Thirumalai, 2022). Similarly, Hadar and Brody (2010) suggested that collaboration among TEs can improve teaching and contribute to their professional development by breaking their isolation. The development of trust and supportive relationships is seen as a precursor to learning from each other. To achieve depth of mutual engagement, it is important that people trust

each other to seek help, and help others to solve problems together and engage genuinely (Cranston, 2011; McGee & Lawrence, 2009).

CL4STEM focused on the fidelity to principles approach to scaling (Coburn, 2003), emphasising building the pedagogical and technological understanding of TEs.

Navigating COVID

The principles of adaptation and contextualisation, dialectically linking theory and practice, and professional learning in collaborative communities were meant to be operationalised in all phases of the project. In the capacity-building phase of the project, it was envisioned that TEs from all three countries would participate in design labs to adapt and develop open educational resources (OERs) for their contexts while engaging with the theory–practice dialect collaboratively in professional learning communities. All of these activities had to transition to an entirely ICT-mediated form.

We organise analysis of experiences of this phase under the three principles, and reflect on how thick mediation played a crucial role in navigating challenges brought about while taking up activities required in accordance to the principles while at the same time, the same activities enabled and fostered thick mediation.

Adaptation and contextualisation

CL4STEM drew on the idea that local adaptation and contextualisation of the programme would enhance relevance and foster ownership. Each country's governance team was expected to lead the innovations adaptation to their context, engaging TEs within their university to create the contextualised OERs to be used in modules meant for teachers. To meet this objective, the project focused initially on developing shared understanding about the project with the governance team and TEs. The original plan included a visit to India and to CLIX field sites and an in-person design lab in which TEs from all three countries would participate. COVID-related restrictions led to changes.

Given that the form of these activities changed to online modes, their intent was partially achieved, however, this was accompanied by new challenges. Firstly, the scheduled quarterly in-person meetings of the governance team had to be cancelled due to inter-country travel restrictions. These meetings had been planned to serve mutual understanding of context, appreciating the CLIX innovation, and overall, the process of relationship building. In their place, a system of fortnightly online Zoom meetings were instituted. Alternate Thursdays at 11.30 Nigerian Standard Time was fixed and calendarised for this. IBBUL, as lead university, anchored the meetings, setting up the agendas, making minutes, and providing the meeting link on a WhatsApp group created for coordination. In general, meetings were long, often up to two hours because the group gave time for each partner to articulate issues or present reports, and internet connectivity created disruptions, requiring waiting and repetition.

Secondly, travel restrictions also resulted in the cancellation of the 2-week, in-person design lab for TEs to be held in India. This design lab was aimed at TEs working closely and collaboratively in subject- and country-wise teams to select, adapt, and contextualise OERs, integrate approaches to enhance understanding of pedagogical content knowledge (PCK) and inclusive education, link theory and practice, and understand how to build and foster vibrant CoPs that can support professional learning.

In place of a design lab, which would have enabled greater fluid interaction and exchange, a more structured knowledge-transfer process had to be adopted. The team from TISS led TEs from partner countries through a series of workshops spread over two months in which they engaged successively with pedagogy courses from Reflective Teaching with ICT (developed for CLIX), understanding PCK, design thinking, and universal design for learning. This was expected to then proceed to subject teams curating, adapting, and designing. Although technology was integral to CL4STEM, carrying out all these activities online proved to be a challenging and slow process. TEs from all three implementation countries found it difficult to secure access to a steady and fast internet. Some of them were located in remote areas. Gaps in technology infrastructure and preparation for EdTech in teacher education also emerged. Nigeria reported that teacher preparation courses did not provide enough meaningful opportunities to employ ICT-based teaching strategies for teachers, and also hinted at the low level of technology literacy of the TEs (IBBUL, 2022). Similarly, the school and college faculty in Bhutan faced numerous challenges due to a lack of adequate skills and knowledge about ICT tools and techniques (SCE, 2022).

The TEs faced intense network connectivity issues along with high costs of internet data, leading to very limited participation in the knowledge transfer and they were unable to attend weekly meetings (CL4STEM, 2022). As one Nigerian TE expressed:

Some of the resources that we need goes on the 'net, this challenge of internet connectivity. We also have the problem of light. From where I'm talking to you now, there is no light since last night. If we need power to run some things, then these challenges. Then, like I have said earlier, the ICT level of some of us still looks like those will be challenges also (TE 3901).

TISS faculty and research associates reflected on the knowledge-transfer process, and noted that the lack of access and low technology literacy made participation in the knowledge-transfer activities slow and time consuming.

In each country, efforts were made to support TEs with data and devices. Some Nigerian TEs purchased new smartphones to be able to access the internet and participate in knowledge-transfer activities (Country Lead 3001, Nigeria). In Bhutan, TEs accessed the internet through free university Wi-Fi. Additionally, some TEs also used Indian internet data, taking advantage of physical proximity to India and low Indian internet data rates (Country Lead 1002, Bhutan). Similarly, TEs in Tanzania were given access to internet data packs to enable them to participate in CL4STEM activities (Country Lead 2000, Tanzania). Based on the TEs' experience with internet access issues, it was decided that all TPD modules should be accessible offline for teachers to participate easily, and all participating teachers should get access to the internet through

CL4STEM.

Increased reliance on technology mediation because of COVID-19-induced restrictions brought forth its own set of ICT-related challenges requiring more resources to meet increased costs and investment of time. In the face of the crisis, it would have been easier to give up design for adaptation and instead simply adopt existing OERs, but these would not have been suitable to each country's context. However, the principle was retained and scope and timelines were changed. The number of modules to be created was reduced. Because "it need[ed] more time to contextualise and localise the modules" (India, Lead Consultant, 4015), to enable TEs to deepen their understanding of pedagogical principles engage with the OER in order to adapt and develop a localised approach to their use in scale, the timeline for module creation was extended and the time available for implementation was reduced from 12 to six months. An important decision was taken that the TPD modules would be made available to teachers both online and offline.

This process of valuing the professional knowledge of TEs, and seeing them as partners for scaling innovation, which was considered essential for sustainability and ownership of the programme by the three countries, effectively led to the process of innovation scaling being adapted.

Linking theory and practice

TEs leveraged technology to experience high quality, exemplary OERs to develop their understanding about OERs and PCK using the CLIX Reflective Teaching with ICT courses. These courses had been designed, researched, and implemented successfully at scale in the Indian context (CLIX, 2020; Thirumalai et al., 2019). The courses are theory based with a strong component of practice embedded in them. While going through each course, TEs were expected to develop lesson plans, teach school students, and write their reflections on this teaching experience. However, because schools were shut down, TEs did not have access to students in classrooms and this necessitated a change in strategy. TEs therefore worked with any group of children in their neighbourhood or in their homes to implement the plans. Alternatives such as dropping the requirement or watching video lessons were not taken up.

TEs later reported that this practice-based component of the course had been a good learning experience for them. One Bhutan TE shared that while teaching a science concept to a student, she came to know the difficulties that they might face—the concept, which might seem simple to the teacher, may seem difficult for the student:

Before, I was always thinking that some of the concepts are very easy for the students to understand. And I did not put in effort to give additional examples and so on, thinking the concept is very easy. But when I was trying to do this CL4STEM, some of the lesson that we had to do with the high school students to see how they are . . . coping with the lessons and then through hands-on practices with them, I realised that our students sometimes do not understand the lesson, they just do not learn. (TE 1001)

Making connections between theory and practice while experiencing and designing OERs

required TEs to reflect on their practice and beliefs. TEs shared different ways in which the participation in knowledge transfer affected their practice:

After taking the course, I have used those games . . . those softwares in the classroom, so that I could engage my children . . . my students, more. So, in one of the classrooms, I've used the Police Squad game in teaching analytic geometry. I remember the Police Squad game and GeoGebra. I also use GeoGebra to teach students about graphs . . . the different things that we can do in the graph. (TE 1916, Bhutan)

The first thing I came to realise especially after undergoing this course, I realised that preparation for teaching should take more time than the time for teaching itself. That a teacher needed to use more time in preparation than in having to teach . . . I think from whatever I have experienced, we normally rush, when we are preparing for teaching. You need to use more time for preparation. (TE 2913, Tanzania)

After using the OER, TEs had synchronous workshops on universal design for learning and design thinking to develop understanding about equity and inclusion, and the design thinking process—thereby leading to the creation of “meaningful, and pedagogically valid teaching-learning resources and modules” (CL4STEM, 2022). A TE from Tanzania shared the shift in his understanding as he engaged in the process of OER creation:

When you start creating your content to teach, and the methodology you are going to use in teaching, the resources . . . there is a need to think about the diversities in learners. Just make sure that everybody is included in your . . . outcome at the end of the day. (TE 2912)

Thus, it can be seen that TEs' understanding grew as they made connections of theories with their own practice. Although a technology-based online course and an accompanying CoP were being used, it was the practice-based pedagogy (Charania, 2022; Peercy & Troyan, 2017) and reflection on practice (Thirumalai et al., 2019) that anchored the learning. The learning was made much more effective by situating it and directing the attention of the learners to what they were learning from the process.

Continual engagement in dialectics of theory and practice made the work of TEs demanding. Taking an inquiry stance on one's own practice, and creating interactive reflective practice-based OERs for teachers required deep engagement (Motala & Menon, 2022a) compared to traditional modes of capacity development that focus on building theoretical understanding. They shared that though they valued intellectual engagement, the project increased their workload, especially given the COVID-induced challenges faced by the education system. TE (1916, Bhutan) shared:

I thought . . . the pedagogical aspects and approaches would be very easy compared to the content itself. But later on, I understood that building approaches and finding or designing approaches suitable for the content was a very difficult task.

Similarly, TE (3970, Nigeria) shared:

We have other official assignments, our primary assignments, so many of the activities of the projects were clashing with, you know, our official duties, and some of the aspects of the project, you know, that required our time and quite active engagement. So, this clashed with our busy

schedules.

Intensification of TEs' workload due to participation in knowledge transfer was a consistent theme shared by most TEs. Because they could not participate in focused face-to-face workshops, TEs had to manage their pre-existing work in their universities as well as develop OERs. TEs raised concerns about not having enough time to work on the module writing and reading the articles shared. The need to continue with business as usual when the familiar script and tacit substratum of educational interaction has been disrupted demanded more energy and time (see Sarangapani, this issue).

Hence, as already noted, a first step towards responding to this challenge involved resetting scope and timelines. Additionally, considerable time during the weekly meetings with TEs was spent on discussing the reading, and the task of developing the module was done later. In the entire process, technology was leveraged to foster dialectical engagement with theory and practice. In contrast to techno-education (Sayed et al., 2021) where technology reduces educators to mere implementers of innovations and hence dehumanises them (Freire, 1968/2005), here, educators were seen as reflective practitioners engaged in recursive cycle of action and reflection for creating contextualised OERs. Technology was used to mediate this dialectical process of action and reflection that led to deepening of the TEs' knowledge. This is in line with Freire's (1968/2005) views of praxis. It is only when people engage in action that encompasses critical reflection, do they move from naïve understanding of reality to higher understanding. Moreover, this action was not individualistic in nature but embedded in and mediated by collaboration, as we elaborate below.

Professional collaborative community formation

The principle of collaborative community formation refers to social learning environments (Wenger, 1998) and learning communities as an essential means for professional learning (Izadinia, 2014). This principle worked in CL4STEM at two levels. Firstly, as CL4STEM was a unique South–South initiative with TEs from four different countries, it was planned that CoPs would be formed across countries to internationalise the professional TE community. Technology mediation of this aspect was a natural enabler, with Zoom and Telegram bringing this diverse group together. Secondly, every teaching–learning situation is based on relationships and mutual engagement between the teacher and the student. The knowledge-transfer phase was, in a way, a teaching–learning situation. It was not merely a transfer of technical know-how but was aimed at developing the TEs' understanding, namely, their beliefs, attitudes, and practices. Strengthening and modification of beliefs and attitudes is enabled in a social learning environment infused with the element of mutual trust (Wenger, 1998). And, it is easier to establish trust when one meets face to face (Henttonen & Blomqvist, 2005). Though the TEs were consistently meeting on Zoom calls, it could not compensate completely for in-person meetings. These feelings were echoed by the people involved in the project. When asked about challenges of the project, the technical lead for India (4010) shared:

We have not been able to visit each other's country. And I think that is important. I mean, I'm concerned a little bit about that. It's also from our side and from them. You know, when we interact in person, I feel there is an exchange of just coming to know the other in a very genuine way. So, from Zoom, we have experienced a tremendous amount of genuineness. . . . Isn't it? That I feel the commitment even on Zoom. I think when we interact in person, the understanding of each other's intent and the development of trust should be that much more deep, not just in the core governance team. . . . I think we enjoy tremendous mutual trust and respect. But it could actually then permeate into the actual members who are involved in this. . . . And I think somehow bringing them into this level of knowledge of the other would hugely contribute to knowledge transfer itself. I wish we could do that.

A lack of familiarity between the TEs, their contexts, and the existing infrastructural challenges, coupled with increased reliance on technology for all communication, posed challenges in enabling a social learning environment. Multiple modes of technology were used to design social learning environments that scaffolded informal interaction along with authentic presence and engagement (Sarangapani, this issue); these included synchronous meetings using Google Docs, and running a mobile-based CoP.

Synchronous meetings were held on a weekly basis, and were used to develop familiarity and a shared understanding of theory and practice amongst the TEs. During these interactions, engaging in informal conversation helped the TEs open up and become familiar with each other. Presentations on the culture and education (in particular, teacher education) of each country helped in understanding the contexts of partner countries (CL4STEM, 2022). Additionally, key messages were shared on Google Docs in synchronous Zoom meetings to enable clearer communication and reduce language accents-related comprehension issues. As researcher (4001, India) explained:

We do keep a Google Doc on the screen wherein I try to capture most of the questions and the concepts that we are brainstorming on, and type it on the screen for them so that, you know, it becomes easier for them to maybe understand what we are saying.

She explained that after these measures to ease the communication were instituted, participation from TEs increased. Similarly, at the time of module creation, working on the shared Google Docs made it easier to provide and receive continual feedback, and work collaboratively. Engagement in the social learning environment was manifested by TEs jointly creating TPD modules. Mobile-based CoPs were created where TEs could discuss their experiences and reflections asynchronously. Borrowing from CLIX, every Friday, a trigger question (Thirumalai, 2022) was posted by the TISS team in these groups for TEs to respond to. At the time of module creation, Monday prompts were posted in the CoPs to help TEs maintain continuity with the project (CL4STEM, 2022). These prompts, communicated at the end of the day, were a way to engage the TEs between two synchronous sessions, and helped them stay in touch with the programme, building shared imagination and alignment (Wenger, 1998).

TEs used CoPs to spark discussions, reflect, raise concerns, and share information and artefacts. Some strategies used for nurturing CoPs as a safe space were responding positively and validating TEs' experiences, and regularly replying to their questions and concerns. Here, TEs discussed not

only theoretical perspectives but also their personal experiences such as their childhood experiences with their school teachers. For example, TE (1910, Bhutan) shared:

Other teachers taught me history through history lessons during history classes, science through science lessons during science classes, geography through geography lessons during the geography classes only, but DP Sir taught me maths through numerous ways: sometimes through narrating stories from epics, sharing his own love story with a beautiful girl, letting me go to his kitchen to cook his lunch during his maths classes, and many more are there in the list. He was my inspiration.

Sharing personal stories created opportunities to break down isolation (Hadar & Brody, 2010) and to develop familiarity with each other and generate trust—a precursor to learning from each other (Henttonen & Blomqvist, 2005). Despite being separated by different geographical borders, these stories highlighted the commonality that exists across different cultures.

The reflections of governance team members also suggest that CL4STEM was able to achieve authentic, consequential communication (Sarangapani, this issue) going beyond emergency technology adoption. All involved in the project admitted that because all the countries of the consortium belonged to the Global South, and faced similar challenges (related to working in a pandemic situation with low resources), it was easier for them to understand each other's problems and devise strategies collaboratively. This was brought out in the reflections of the leads from all three countries as reported below:

With the South–South [collaboration], you can always think in a similar way and look at things in a relatively same way. . . . For instance, when . . . we're saying that there is a problem of computers and smartphones and things like that. It's not very easy. For anybody coming from the North to think that there will be a school without computers. (Country Lead 2002, Tanzania)

It's sometimes difficult for the [people from North] to understand. The electricity is not there, for instance, the internet is down, or this person didn't join the call, but they literally cannot, there are so many things going on. So it was difficult. You know, they manage at some point to understand, but I know it's when you don't live in that context, you hardly can appreciate how things can happen . . . out of . . . people's control. So I think that's also why a Global South–South collaboration will achieve more understanding and trust than a Global North–South, because there is lived experience, about the circumstances and the situations in the Global South. (Country Lead 3001, Nigeria)

When you work together within a . . . a project like this, this kind when it is a South–South partnership, I think there is a level of comfort, where you do not . . . really hesitate to share your views. . . . And we, I've never felt deficient, of being . . . able to work in this South–South partnership. . . . The kind of . . . collegiality and the camaraderie that . . . we have managed to build as a . . . governance team was to me quite encouraging and motivating. . . . We never had issues, you know, I don't remember [feeling] offended because of the kind of differences that people brought to the meetings, I found it quite . . . comforting, very safe to share any kind of views and opinions in the governance meeting. (Country Lead 1000, Bhutan)

The hierarchical epistemological relationship of North and South posits one as the knower and

other as learner, thereby manifesting a deficit outlook towards the Global South (Santos, 2016). However, the above quotes reflect that no such hierarchies were perceived in this programme; instead, thick technological mediation enabled dialogical encounters (Freire, 1968/2005), and developed a sense of camaraderie and collegiality grounded in the environment of trust and respect.

Discussion and conclusion

Two core features characterising the processes of navigating the COVID crisis were described in the previous section. Firstly, fidelity to principles served as a guiding compass in selecting priorities and making changes while adapting to altered circumstances. Secondly, thick technology mediation was necessitated; this took the form of additional time and attention paid to ICT-based processes, and thick mediation was made possible by the activities abiding with the core principles. In this concluding section of the paper, we discuss these two features.

Fidelity to principles as the guiding force for navigating the crisis

COVID-19 led to the global shutdown of face-to-face meetings, forcing educational institutions to abruptly adopt online learning, which did little more than reverse engineer the traditional classroom (Kalantzis & Cope, 2020). Higher education institutes employed emergency remote teaching to continue their business as usual. The sudden shift to online modes of interaction brought forth various challenges that deeply affected the implementation of CL4STEM. Overall, given the relatively privileged place of higher education institutions even within Southern contexts, and the fact that this project already involved technology use for collaboration, it may seem that the COVID-19 disruption was tidied over by adopting technology more extensively into the project's operations. However, such emergency technology adoption and disruption brought more fundamental disruption to educational engagements and communication (Sarangapani, this issue).

To navigate these disruptions, and working for authentic engagement and communication, various adaptations in the design and modalities of the programme had to be made. These adaptations were based on the core commitment to the underlying principles of adaptation and contextualisation, dialectical linkage of theory and practice, and professional collaborative community formation. These principles served as a guiding compass to ensure the programme maintained its direction, and decisions were made that were consistent with these core principles (Coburn, 2003; Morel et al., 2019). The principles guided the process of technology mediation through which participants were able to cope with the dislocating effects of intense technology use, retain agency, and form relationships with others. These three principles on which CL4STEM project was designed had been selected because they are relevant to enabling large-scale reform-oriented initiatives in the Global South to stay flexible and adaptable without losing sight of core purpose or being merely co-opted into other agendas. These principles revealed themselves to be robust and relevant to contexts of extreme crisis such as that induced by COVID-19. By foregrounding local agency, linking theory and practice, and collaborative communities, these principles also enabled thick

mediation necessary in times of intense technology usage to ensure that they can lead to core epistemic constructs and practices, which are central to mediating sustainable change.

Thick technology mediation as a medium for navigating crisis

Post COVID, there has been an increased acceptance of technology as a magic wand and one-stop solution to the educational crisis. Enhanced use of technology is being promoted in schools, universities, policy directives, and for scaling educational reform. The large-scale reforms that emphasise transferring best practices from one context to another, prioritising technology usage as pre-packaged products, are being advocated while neglecting social and human elements such as relationships and the environment surrounding that technology (Woltering et al., 2019). Scholars have argued for the need to go beyond emergency online practices and include collaborative and social components in online learning to make participation more inclusive (Carrillo & Flores, 2020). Arguing against the use of standardised digital resources, Charania et al. (2021) suggested that practice-based TPD needs to enable teachers to adapt technologies for constructive teaching pedagogies. Motala and Menon (2022b) suggested that while technology can be used to ossify pre-existing structures and practices, it can also afford to create new possibilities for engagement and compassion in order to design better educational experiences.

In alignment with the literature that argues for authentic engagement through technology, this paper has presented the case of a TPD programme that was scaled up through the use of thick technology mediation to foster deep engagement (Motala & Menon, 2022a), dialogue, trust (Freire, 1968/2005), and social learning environments (Wenger, 1998). Technology mediation was used to develop professional learning communities where the TEs mutually engaged in the process of co-creating contextualised OERS. In the process, they developed a shared repertoire of common language (Wenger, 1998), and shared understanding of the core principles of innovation (Morel et al., 2019) by establishing dialogue and trust (Freire, 1968/2005). A fundamental aspect of Freire's dialogical encounters, namely, deep respect for the knowledge and experiences that each participant brings, was the underlying feature of the technology-mediated interactions. There was a conscious attempt to create democratic space in which all voices were equally heard and their concerns valued. These dialogic encounters provided a safe space for horizontal South–South collaboration, rather than the hierarchical structure of knowledge production and dissemination that may play out in the North–South relationship (Sayed et al., 2021).

Although technology can be used to mediate the process of knowledge creation, the approaches to ICT integration in scaling TPD should be human-centric (Bozkurt & Sharma, 2020). The narratives built around COVID-19 gave misplaced importance to technology mediation at the cost of human elements like developing trust, collaboration, and authentic engagement. There is a need to create narratives that keep the mutuality of relationships in the forefront wherein technology, or any other form of mediation, is seen as a means to foster that relationship.

References

- Ball, D. L., & Cohen, D. K. (1999). Developing practice, developing practitioners: Toward a practice-based theory of professional education. In G. Sykes & L. Darling-Hammond (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 3–32). Jossey Bass.
- Bozkurt, A., & Sharma, R. C. (2020). Education in normal, new normal, and next normal: Observations from the past, insights from the present and projections for the future. *Asian Journal of Distance Education*, 15(2), 1–x. <http://dx.doi.org/10.5281/zenodo.4362664>
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466–487. <http://dx.doi.org/10.1080/02619768.2020.1821184>
- Charania, A. (Ed.). (2022). *Integrated approach to technology in education in India: Implementation and impact*. Routledge.
- Charania, A., Bakshani, U., Paltiwale, S., Kaur, I., & Nasrin, N. (2021). Constructivist teaching and learning with technologies in the COVID-19 lockdown in Eastern India. *British Journal of Educational Technology*, 52(4), 1478–1493. <https://doi.org/10.1111%2Fbjet.13111>
- Coburn, C. E. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. *Educational Researcher*, 32(6), 3–12. <http://dx.doi.org/10.3102/0013189X032006003>
- Connected Learning for STEM. (2022). *Knowledge transfer: Process documentation report*. Tata Institute of Social Sciences. <https://www.connectedlearningforstem.org/wp-content/uploads/2022/11/KT-Process-Documentation-Report.pdf>
- Connected Learning Initiative. (2020). Making EdTech work for secondary school students & their teachers: A report of research findings from CLIX Phase I. Tata Institute of Social Sciences. clix.tiss.edu/wp-content/uploads/2021/01/Making-Edtech-Work_Research-Findings_CLIX-Phase-I.pdf
- Cranston, J. (2011). Relational trust: The glue that binds a professional learning community. *Alberta Journal of Educational Research*, 57(1), 59–72. <http://dx.doi.org/10.55016/ojs/ajer.v57i1.55455>
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE.
- Freire, P. (2005). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). Continuum. (Original work published 1968)
- Hadar, L., & Brody, D. (2010). From isolation to symphonic harmony: Building a professional development community among teacher educators. *Teaching and Teacher Education*, 26(8), 1641–1651. <http://dx.doi.org/10.1016/j.tate.2010.06.015>
- Henttonen, K., & Blomqvist, K. (2005). Managing distance in a global virtual team: The evolution of trust through technology-mediated relational communication. *Strategic Change*, 14(2), 107–119. <http://dx.doi.org/10.1002/jsc.714>
- Ibrahim Badamasi Babangida University-Lapai. (2022). *Situation analysis: Nigeria*. CL4STEM. <https://tinyurl.com/4ze3s5tk>

- Izadinia, M. (2014). Teacher educators' identity: A review of literature. *European Journal of Teacher Education*, 37(4), 426–441. <http://dx.doi.org/10.1080/02619768.2014.947025>
- Johnson, S., Hodges, M., & Monk, M. (2000). Teacher development and change in South Africa: A critique of the appropriateness of transfer of northern/western practice. *Compare: A Journal of Comparative and International Education*, 30(2), 179–192. <http://dx.doi.org/10.1080/713657456>
- Kalantzis, M., & Cope, B. (2020). After the COVID-19 crisis: Why higher education may (and perhaps should) never be the same. *Educational Philosophy and Theory*, 40(1), 51–55. <http://dx.doi.org/10.46786/ac20.9496>
- Klingner, J. K., Boardman, A. G., & McMaster, K. L. (2013). What does it take to scale up and sustain evidence-based practices? *Exceptional Children*, 79(2), 195–211. <http://dx.doi.org/10.1177/0014402913079002061>
- McGee, A., & Lawrence, A. (2009). Teacher educators' inquiring into their own practice. *Professional Development in Education*, 35(1), 139–157. <http://dx.doi.org/10.1080/13674580802268994>
- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Morel, R. P., Coburn, C., Catterson, A. K., & Higgs, J. (2019). The multiple meanings of scale: Implications for researchers and practitioners. *Educational Researcher*, 48(6), 369–377. <http://dx.doi.org/10.3102/0013189X19860531>
- Motala, S., & Menon, K. (2022a). The hill we climb: In search of a new pedagogy. *Southern African Review of Education with Education with Production*, 27(1), 140–159. https://hdl.handle.net/10520/ejc-sare_v27_n1_a9
- Motala, S., & Menon, K. (2022b). Pedagogical continuities in teaching and learning during COVID-19: Holding up the bridge. *Scholarship of Teaching and Learning in the South*, 6(1), 7–32. <http://dx.doi.org/10.36615/sotls.v6i1.249>
- Peercy, M. M., & Troyan, F. J. (2017). Making transparent the challenges of developing a practice-based pedagogy of teacher education. *Teaching and Teacher Education*, 61, 26–36. <http://dx.doi.org/10.1016/j.tate.2016.10.005>
- Saavedra, C. M., & Pérez, M. S. (2018). Global South approaches to bilingual and early childhood teacher education: Disrupting Global North neoliberalism. *Policy Futures in Education*, 16(6), 749–763. <https://doi.org/10.1177/1478210317751271>
- Samtse College of Education. (2022). *Situation analysis: Bhutan*. CL4STEM. <https://tinyurl.com/3fjcxkfx>
- Santos, B. D. S. (2016). Epistemologies of the South and the future. *From the European South: A Transdisciplinary Journal of Postcolonial Humanities*, 1, 17–29. <https://tinyurl.com/3fdmuah8>
- Sarangapani, P. M. (2022). Pedagogy and diversity: Difference or deficit. *Journal of Human Values*, 28(1), 20–28. <https://doi.org/10.1177/09716858211069596>
- Sayed, Y., Cooper, A., & John, V. M. (2021). Crises and disruptions: Educational reflections, (re)imaginings, and (re)vitalization. *Journal of Education*, 84, 9–30. <http://dx.doi.org/10.17159/2520-9868/i84a01>

- Sayed, Y. M., & Sarangapani, P. M. (2021). Understanding teachers and teaching in South Asia. In P. M. Sarangapani & R. Pappu (Eds.), *Handbook of education systems in South Asia* (pp. 1199–1217). Springer.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4–14. <https://doi.org/10.3102/0013189X015002004>
- Thirumalai, B. (2022). *A study of teachers' community of practice in the Indian context* [Unpublished doctoral dissertation]. Tata Institute of Social Sciences, Hyderabad.
- Thirumalai, B., Ramanathan, A., Charania, A., & Stump, G. (2019). Designing for technology-enabled reflective practice: Teachers' voices on participating in a connected learning practice. In R. Setty, R. Iyengar, M. Witenstein, E. J. Byker, & H. Kidwai (Eds.), *Teaching and teacher education: South Asian perspectives* (pp. 243–272). Palgrave Macmillan.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.
- Woltering, L., Fehlenberg, K., Gerard, B., Ubels, J., & Cooley, L. (2019). Scaling—from “reaching many” to sustainable systems change at scale: A critical shift in mindset. *Agricultural Systems*, 176, 102652. <http://dx.doi.org/10.1016/j.agsy.2019.102652>

Author Note

CL4STEM is funded by the International Development Research Centre, Canada (IDRC) under the Global Partnership for Education Knowledge and Innovation Exchange. The views expressed herein do not necessarily represent those of IDRC or its Board of Governors.

Notes on the authors

Tanushree Rawat works at the Centre of Excellence in Teacher Education, Tata Institute of Social Sciences, Mumbai as the research coordinator for CL4STEM.

Payal Aggarwal is a consultant currently working with Centre of Excellence in Teacher Education, Tata Institute of Social Sciences, Mumbai.

Address for correspondence

tanushree.rawat@tiss.edu
payalwork0@gmail.com

Researching in the time of COVID-19: Doctoral student experiences from South Africa and India

Ekta Singla

Tata Institute of Social Sciences

Halima Namakula

University of Johannesburg

Emaya Kannamma

Tata Institute of Social Sciences

Abstract

Doctoral studies are challenging and complex because they require a significant investment of time, effort, and resources. The COVID-19 pandemic further complicated these demands, causing disruptions to doctoral students' educational trajectories and research activities and affecting their well-being. This paper draws on UNESCO's *The Right to Higher Education* (Sabzalieva et al., 2022) social justice framework as a lens to gain a deeper understanding of the question of access in conducting research in South Africa and India during the pandemic. It employs a literature review and comparative thematic analysis to compare the experiences of doctoral students. It focuses on how the shift to an online mode affected access to research-related resources, facilities, sites, participants, supervisors, and social interactions, considering historical and socio-economic disparities. The results indicate varying problems with access to physical and online research-related resources based on the research area, gender, and geographical context. Severe mental health challenges were also reported, along with limited or no available support. Students adopted flexible and community-oriented strategies to mitigate COVID-19-related challenges. The paper concludes with actionable recommendations to remove structural barriers and enhance student access to research-related resources, aiming to build resilient and inclusive support systems in higher education and achieve the transformative potential of higher education.

Keywords: COVID-19, doctoral education, higher education, student access, social justice

Singla, E., Namakula, H., & Kannamma, E. (2024). Researching in the time of COVID-19: Doctoral student experiences from South Africa and India. *Southern African Review of Education*, 29(1), 133–151.

Introduction

In this era of the knowledge economy, the importance of doctoral education extends far beyond personal accomplishments because it can significantly contribute to societal and economic transformations (Keane et al., 2023; Molla & Cuthbert, 2016). In South Africa, increasing the number of doctoral graduates is part of the country's strategic vision for 2030 (Council on Higher Education, 2022; Namakula & Ndaba, 2024). As stated in the National Development Plan, the goal is to produce more than 100 doctoral graduates per million people annually by 2030, a significant increase from the current rate of approximately 46 doctorates per million (Maluleka & Ngoepe, 2019; Namakula & Ndaba, 2024). This aspiration is driven by the need to boost knowledge production, drive innovation, and develop a highly skilled workforce that can compete globally and address the country's complex social and economic challenges (van Lill, 2024).

India has also seen a rise in demand for doctoral graduates, particularly in science and technology, owing to the need for expertise in these fields (Niazi, 2021). The Indian government plans to restructure the currently fragmented higher education system to create multidisciplinary education and research universities, colleges, and higher education institution (HEI) clusters/knowledge hubs with high global standards that cater for more than 3,000 students. This is aimed at helping to create communities of scholars across disciplines to serve as incubation centres. The plan includes efforts to strengthen academia's relationship with industry in order to promote research and innovation (Government of India, 2020).

Structure of HEIs in South Africa and India

South Africa's higher education system comprises 26 public universities categorised as traditional, technology, or comprehensive universities. Traditional universities emphasise research, universities of technology focus on vocational courses, and comprehensive universities offer a mix of academic and vocational programmes (Council on Higher Education, 2022). There are also 131 private HEIs, 50 public technical and vocational education and training colleges, 287 private colleges, and nine community education and training colleges (Republic of South Africa [RSA], n.d., p. 22). Doctoral degrees in South Africa are classified as either General (PhD), which emphasise original research or Professional (e.g. DTech), which focus on applied research for practical problems. In 2021, 24,725 doctoral students were enrolled in public universities nationwide (RSA, 2023).

In the case of India, the regulatory framework of HEIs is complex and comprises three tiers: the university, the college, and the course (Shah, 2015). The Ministry of Education classified universities in India into five types based on the form of management: central, state, private, institutions deemed to be universities, and institutes of national importance. According to the *All India Survey on Higher Education, 2021–22* (Government of India, 2024a) there were 1,113 universities and 43,796 colleges in 2021, and more than 40 million students enrolled in HEIs. The total doctorate enrolment was 212,474 students: 24.8% in engineering and technology, and 21.3%

in science and other major disciplines including social sciences, medical science, and management (Government of India, 2024a). In the past, doctoral aspirants in India needed to undergo national-level, subject-specific examinations for admission/fellowships such as the University Grants Commission's national eligibility test (UGC-NET), the joint Council of Scientific and Industrial Research-University Grants Commission's national eligibility test (CSIR-UGC NET), or entrance examinations conducted by respective HEIs. However, from March 2024, the national eligibility test has become mandatory for doctorate admission (Government of India, 2024b).

Impact of COVID-19 on doctoral education

The elaborate and extensive structure of HEIs in both countries highlights the social value of higher education and the role of doctoral research in national development, in particular. Doctoral education is now linked to national innovation, employability, and the labour market, where the emphasis is placed on employable competencies to gain a competitive advantage in the new knowledge-based economy (Cardoso et al., 2022). The traditional doctoral education within an apprenticeship-type period has become a more structured, time-bound, formal process with components of project-based research, publishing, and teaching (Sarrico, 2022). Despite the challenging nature of work and skills that doctoral students now undertake in this stressful and time-bound environment amid higher education inequalities, especially in countries like South Africa and India, there are few studies that capture the complexities of doctoral students' research experiences.

The COVID-19 pandemic further exacerbated doctoral students' challenges, disrupting the research process and progress, and resulting in additional hurdles (Muchaku et al., 2024). According to Maboe (2024), the pandemic made pursuing a doctoral degree more challenging because of changing goals, uncertain time commitment, poor work-life balance, financial insecurity, and uncertainty about career prospects. In India, the pandemic disproportionately impacted graduate students, causing financial hardship and exacerbating mental health struggles (Alamu et al., 2023). Studies on COVID-19 challenges faced by doctoral students highlighted issues of access to resources and deterioration of mental health among students in a university, region, or particular field of study (for example, biodiversity, neuroscience). In addition, many of the studies gathered data through closed, online, structured questionnaires where respondents were unable to elaborate on their experiences. Through a scoping review where narrative accounts of students' COVID-19 experiences were also included, this study aims to gain a holistic understanding of doctoral student experiences of conducting research during COVID-19 in South Africa and India to understand the systemic nature of their challenges and mitigation strategies, and to make possible recommendations.

Inequality in access to higher education resources

Historically, higher education has functioned as an exclusive space, shaping educational processes and institutional culture for a select few (Badat, 2010). In countries like South Africa and India that have a history of institutional injustices, higher education has emerged as an instrument of social transformation (Jayaram, 1979; Osman & Maringe, 2019). However, in South Africa and India, access to higher education, particularly doctoral research, is limited to a select few. Behera and Mathew (2022) showed the underrepresentation of historically marginalised students in doctoral programmes in India. These include students belonging to the Scheduled Castes, Scheduled Tribes, and Other Backward Classes categories¹ recognised under the Constitution of India. In South Africa, women and Black students are disproportionately underrepresented in doctoral education (Idahosa & Mkhize, 2021).

In an attempt to address racial inequalities in South Africa, the post-apartheid government created unified and equitable HEIs to reduce disparities and improve quality. A new funding formula was introduced to promote equity by allocating resources based on student enrolment and institutional performance, and focusing on historically disadvantaged institutions (Cele & Menon, 2007). In India, reservations in higher education for historically marginalised students, especially Scheduled Castes, Scheduled Tribes, and other socially and economically backward classes, are guaranteed by the Constitution that was adopted in 1949 by the newly independent nation-state. Studies (see Namakula & Ndaba, 2024; Narwana & Gill, 2020) in both countries have consistently highlighted that enrolment among socially marginalised groups has increased, albeit with multiple challenges that question the transformative potential of higher education.

In India, students face rising tuition fees, lack of support, discrimination, and other obstacles (Xaxa, 2014). In South Africa, the legacy of apartheid has resulted in persistent inequalities, which include inadequate funding, unequal resource distribution, and socio-economic barriers that hinder the educational advancement of students (Chiramba & Ndofirepi, 2023). Navani (2020) argued that merely increasing numbers through market-driven means cannot promote inclusion in HEIs. A higher education system focused on market expansion where students are equal consumers fails to consider historical marginalisation or uphold principles of social justice (Das & Chattopadhyay, 2014). Consequently, it is unable to provide a suitable support system. The decision by the Government of India in 2022 to discontinue the Maulana Azad National Fellowship for minority students and award fellowships through a single national test exemplifies this neglect (Chitlangia, 2024).

Equitable access to higher education can increase social fairness (Singh, 2011), catalysing knowledge production, innovation, and professional development to become an instrument of social transformation. Widening participation in HEIs for diverse groups holds the promise of

1 Scheduled Caste, Scheduled Tribe, and Other Backward Classes are historically marginalised groups of people in India, recognised under the specific schedule of the Indian Constitution, given special status to guarantee their rights and prevent further discrimination. Individuals in the above categories are provided reserved spaces in higher education and employment for adequate participation and representation.

individual advancement and social mobility (Wankhede, 2015). However, student experiences within higher education have been homogenised to define outcome-based relations between students, academics, and HEIs, which limit students' agency and uphold a normative conception of students' experiences (Sabri, 2011). Bose (2023), in the context of India, argued that the influx of diverse student populations into the conventionally exclusive spaces of universities necessitates constant negotiations with the experiences of vulnerable students to promote inclusion. Foregrounding student experiences from a social justice viewpoint, this discussion delves into doctoral student experiences of access to higher education during the pandemic. Students' access to higher education inspired by social justice values cannot be limited to mere enrolment numbers; further measures are required to enhance students' day-to-day experiences at university. This paper aims to identify systemic gaps in higher education structures and make recommendations based on students' experiences.

Theoretical framework

The inequalities in higher education are not limited to access to HEIs but extend to pedagogical processes. During the pandemic when students enrolled in HEIs were forced to conduct research outside the university, they faced many barriers. Examining these issues can enhance our understanding of access concerning students' research experiences and help transform HEI processes to accommodate diverse student needs, prepare for a hybrid HEI structure, and prepare for a changing doctoral programme. We draw upon UNESCO's *Right to Higher Education (RTHE)* framework (Sabzalieva et al., 2022) to examine doctoral students' experiences of conducting research during COVID-19. According to the *RTHE* framework, wider access to higher education has individual (higher income and social mobility) and social benefits (fairness, inclusion, and greater participation in democracy, among others). In both South Africa and India, higher education plays a social and transformative role. Discussions of access to higher education centre on resources, opportunities, and pedagogical responses to diversity. However, access is also about inclusion and equity, seen from an intersectional perspective (Sabzalieva et al., 2022). Thus, having adequate teaching and learning environments that can support all students equally is crucial. This is especially so in the context of student experiences during COVID-19, which caused disruptions and widened social inequalities. Several structural, systemic, and cultural issues currently hinder inclusion. According to the *RTHE*, only when governments and HEIs take responsibility to make the a) availability, b) accessibility, c) acceptability, and d) adaptability of higher education inclusive, can education become a meaningful right. Thus, the requirements of e) accountability measures are necessary to measure and sustain progress.

Overall, the *RTHE* framework takes a systemic and structural approach to the notion of access with special emphasis on inclusion and equity, particularly during COVID-19, and pushes for decision-making and policies that address the needs of particularly vulnerable populations in each country (McPhail, 2021 in Sabzalieva et al., 2022). Drawing on the *RTHE* social justice

framework, this paper discusses doctoral students' experiences of access and their mitigation strategies. The paper then recommends ways in which HEIs in South Africa and India could create inclusive and sustainable systems to support students in the changing higher education landscape.

The main research question was: "How did COVID-19 impact doctoral students' research experiences in South Africa and India?" The following sub-questions helped guide the research: "What kind of challenges did doctoral students face in accessing research-related resources during COVID-19?" and "What strategies did students use to mitigate challenges in conducting research?"

Methodology

Author 2 is an early career researcher at an HEI in South Africa, and Authors 1 and 3 are doctoral students in an Indian university. They delivered presentations on the challenges of conducting research in their respective contexts at a seminar. The seminar presentations highlighted the similarities between the academic structures and the COVID-19 challenges for students in the two countries. These included a move to online education when in-person teaching-learning ceased, persistent student challenges in continuing research, and limited institutional support systems. The physical locations of the authors also granted them access to students in their respective HEIs. In addition, as researchers, they were personally affected by COVID-19, which motivated this collaboration. Following their presentations, the authors were invited to write for this special issue of the *SARE* journal on student experiences during COVID-19.

To understand doctoral students' experiences from both contexts, the authors conducted a scoping review using the following phrases: "doctoral student experiences during COVID-19 in South Africa," "doctoral student experiences during COVID-19 in India," and "research scholars/India/South Africa" on PubMed Central, Google Scholar, Journal Storage, and *Economic and Political Weekly*. The initial search produced more than 40,5000 results and after reading the abstract and methodology, peer-reviewed studies between 2020 and 2024 that explicitly dealt with, "doctoral students in India" and "doctoral students in South Africa" were selected. In addition, given the disruptive nature of COVID-19 when traditional field-based methods of social sciences failed and academic journals experienced months of delays, we came across doctoral student accounts and small sample studies in other local, peer-reviewed journals similar to *Economic and Political Weekly* that were also included. This review excluded books, news articles, theses, or academic articles written in languages other than English.

Based on these inclusion and exclusion criteria, nine studies from India and 10 from South Africa were included in the review. The review aimed to a) examine doctoral students' challenges in accessing research-related resources and b) identify any mitigation strategies used to overcome the challenges, as reported in the selected studies. Based on the research questions, the authors carried out a reflective and comparative thematic analysis (Braun & Clark, 2006), which involved familiarisation with the studies in each country. The authors engaged in coding and generating initial themes on "access," "challenges," and "solution." Results from both contexts were

discussed and reviewed, and common themes that captured the findings from the two contexts were developed, considering the differences under each theme.

Findings

These initial common themes were further refined, defined, and named, followed by writing the findings under each of the two research sub-questions.

Sub-question 1: What kind of challenges did doctoral students face to access research-related resources during COVID-19?

Lack of access to funding

The unexpected nature of the COVID-19 pandemic disrupted regular research processes, necessitating adaptation to newer research modes. However, the change also meant added expenditure. In India, the University Grants Commission's Junior Research Fellowship is a major countrywide fellowship for master's and doctorate students. Students, especially those from marginalised backgrounds, use the fellowship to meet daily expenses and support their families back home (Bhoi & Lakhra, 2022). During the pandemic, the release of fellowship funds was delayed for months (Kunju, 2020). Alamu et al. (2023) showed that among Indian doctorate students at Jawaharlal Nehru University, 66.2% of fellowship holders had not received any funding since the pandemic began, highlighting a significant disruption to fellowship disbursements. Even before the pandemic, fellowship payments for researchers in India were irregular. However, during the crisis, the delay in releasing funds further aggravated students' challenges. Before the pandemic, 40.1% of fellowship holders at Jawaharlal Nehru University used their fellowship funds to aid their families and cover research and daily expenses. As family income dwindled, this figure rose to 52.8%. Bhagwan's (2023) study in South Africa also pointed to students' stress in securing funding. In both countries, seven studies cumulatively suggested that limited or lack of funding was a major challenge to survival, supporting families in distress, meeting daily expenses, and accessing digital and essential research resources among all students across disciplines; this made it difficult to carry out research, and affected research scholars' progress in both countries.

However, given the unequal social position of students, learners overcoming generational poverty—like women and Black students in South Africa and students belonging to Scheduled Tribes, Scheduled Castes, and Other Backward Classes in India (Alamu et al., 2023; Bhakat & Das, 2023)—were more likely to be affected by delays in fellowship payments and lack of readily available financial support from family members (Hlongwa, 2020). Timely disbursal of funds is a major factor in ensuring the accessibility to doctoral programmes for students from historically disadvantaged groups. Student support programmes, like monthly stipends, are crucial in ensuring equal opportunities for students in higher education, enhancing access, and aiding in successful completion (Dynarski, 2003 in Sabzalieva et al., 2022).

Lack of access to essential research resources

HEIs, especially those in developing countries like South Africa and India, are endowed with essential material resources not necessarily available to students at their residences. These include a reading space, uninterrupted access to the internet, books, laboratories, and a community of sympathetic peers who understand the challenges of doctoral research. During the COVID-19 lockdown, doctoral researchers were forced to move back home, which made access to research-related resources extremely difficult.

Among Indian students, according to Alamu et al. (2023), almost 80% of research scholars could not bring essential research materials, such as books, photocopies, readings, and notes, from their hostels, library lockers, and laboratories back home. Several studies (see Alamu et al., 2023; Bapat et al., 2021; Pillay & Jarbandhan, 2023; Ramvilas et al., 2021) highlighted that students in both countries working in the fields of sciences, for whom access to a laboratory is an essential part of their research, faced massive disruptions to their work and progress.

The pandemic disrupted traditional modes of research, forcing doctoral students to adopt new research methods that relied on digital tools (Mudzi & Mudzi, 2022; Pillay & Jarbandhan, 2023). Because students were forced to work online at home, students in both countries faced many barriers to conducting research. First, only a small percentage of students in both countries enjoyed an uninterrupted electricity supply at their residences. Second, the availability of laptops or other digital devices was limited or, in many cases, shared among family members. Third, access to the internet was limited. In both countries, the digital divide affected some students more than others. The geographical location of students also affected the divide because students from rural India with limited digital infrastructure were more affected than their urban counterparts. Black students in South Africa, and women students in both countries, found uninterrupted access to online research to be difficult. In South Africa, the pandemic magnified the digital divide among historically Black universities. Pillay and Jarbandhan (2023) explained that historically White universities had the necessary resources to transition to online learning, while historically Black universities and students faced severe challenges. This disparity in access to technology disproportionately affected economically disadvantaged students and vulnerable universities (Bhagwan, 2023). Furthermore, the pressure of care-related responsibilities, particularly for women students, meant they did not have enough time for research. Given the varied nature of digital access among students, research from South Africa (see Bhagwan, 2023; Pillay & Jarbandhan, 2023) showed a direct effect on doctoral students' connection with their supervisors and the process of guidance—essential components of the doctoral research programme.

In India, students with access to the internet found that they could not access e-journals or books relevant to their research because the libraries in their universities had not digitised all pertinent content for their research work, and were ill prepared to support students' online research. Some universities had not bought online conferencing packages so classes faced regular interruptions (Alamu et al., 2023).

Restrictions on movement

The COVID-19 lockdown profoundly impacted doctoral research, bringing restrictions to movement in both countries. Humanities and social sciences doctoral students in both countries were most heavily affected during the data-gathering stage (Mudzi & Mudzi, 2022; Singla & Kannamma, 2022). The inability to carry out fieldwork meant a lack of access to participants, causing substantial setbacks to students' research projects. Students in both countries working with vulnerable populations who were digitally inaccessible, found themselves at a crossroads. In addition, a study based in India highlighted the impact of the lockdown on students researching biodiversity who were unable to travel (Ramvilas et al., 2021). In India, reliance on physical archives posed a substantial challenge because many of these resources were not digitised, further hindering research activities (Alamu et al., 2023). Ramvilas et al. (2021) also pointed to the effect of travel restrictions on professional gatherings essential for early career researchers' professional growth and networking. Lack of adequate opportunities for in-person interaction significantly affected research in primary areas of marine/estuarine ecosystems that require collaboration at scale, disproportionately affecting women scholars.

Issues with guidance

The availability of reliable internet connectivity and access to digital tools for adequate doctoral supervision became significant during the pandemic. Chigona and Sosibo (2024) argued that supervisors are critical for enabling doctoral students to achieve their goals through guidance and support. The shift to online supervision required students and supervisors to become competent in using digital technologies and tools in order to engage effectively in online settings. Pillay and Jarbandhan (2023) explained that the pandemic disrupted traditional modes of supervision, exposing the inadequacies in digital accessibility. The face-to-face supervision mode offers both students and supervisors an opportunity to interact in formal and informal settings, which is difficult to replicate in an online environment. Working remotely presented new challenges and created barriers to interpersonal connections for students and supervisors who needed more knowledge and understanding of the virtual research process and navigating the uncertainties and disruptions caused by the pandemic (Makama & Peters, 2023). Bhagwan (2023) explained that this elevated stress required supervisors to motivate their students to stay on course despite what was happening. Chigona and Sosibo (2024) and Makama and Peters (2023), in studies from South Africa, emphasised the importance of supervisors in providing guidance, support, and mentorship—especially during challenging times such as the COVID-19 pandemic. Studies among doctoral students from India also reported limited mentorship and unmet expectations of emotional support from supervisors (Bapat et al., 2021; Singla & Kannamma, 2022).

Given that the needs of research students are unique and depend as much on their disciplinary practices as on their socio-economic conditions, doctoral supervisors are required to be adaptable and provide exposure to different methodological approaches. Institutions are similarly expected to be flexible in administrative processes for course requirements based on the contextual needs of

a diverse student community. However, evidence from both countries suggested that universities and supervisors could not adapt to the changing circumstances to provide suitable support and guidance.

Well-being of students

Hoque (2024) explained that doctoral research is a lonely endeavour, often undertaken in isolation, and thus requires a strong mental capacity to cope with the stress, pressure, and expectations that come with it. The pandemic affected the day-to-day operations of universities, including doctoral students' research trajectories. The disruptions caused by the pandemic derailed doctoral students' research progress in both countries, as reported in 16 of the 19 studies reviewed. In South Africa and India, where the right to higher education is a crucial social justice issue, the pandemic exacerbated existing inequalities (Alamu et al., 2023; Menon & Motala, 2022). Lack of financial support in the face of increased spending on health, food, and essential research resources like the internet caused stress, anxiety, and depression among many Indian research students. Single male students in India living at home with reduced family income felt the financial burden of supporting their families, and reported higher levels of depression. Similarly, single women reported higher levels of depression as a result of an increased pressure to get married (Kapasias et al., 2022; Mondal et al., 2023).

The uncertainty of the research process also affected students psychologically in both countries. The sudden shift to online platforms, the disrupted research timelines, and lack of access to the field or the laboratory, which are core components of specific disciplines of doctoral studies, was a major concern for doctoral students because they had implications for the progress and completion of their studies (Bapat et al., 2021; Hoque, 2024; Mitchell et al., 2023). The increased workload associated with adapting to online modes of instruction and research further exacerbated the challenges students faced, potentially leading to overwhelm and burnout (Sosibo, 2024).

The lack of in-person interactions with supervisors and peers, and a lack of understanding among family members of what doctoral studies entailed, contributed to feelings of isolation and a diminished sense of community (Bapat et al., 2021). These disruptions also highlighted that the right to higher education is an elusive dream for some groups of people in countries such as South Africa and India because of persisting inequalities.

Sub-question 2: What strategies did students use to mitigate research challenges?

The difficulties caused by COVID-19 for research scholars as outlined in the earlier sections can be grouped into the following themes: lack of access to essential resources and guidance, restrictions on movement, lack of funding, and well-being of students. However, even in these extraordinary circumstances, various examples of students can be found who, with support from teachers and HEIs in both countries, found resilient and unique ways to mitigate disruptions to teaching–learning and research work, which can be a source of learning to prepare for any future disruption.

Strategies to overcome problems of access and guidance

Results from our review show that the first wave of COVID-19 (January 2020 to November 2020) was the most challenging period for doctoral students in both countries, given the sudden disruption to research with little time to prepare for alternative modes of conducting research. Strategies adopted by students to mitigate challenges related to resources depended on the stage of their research and the topic. First- and second-year doctoral students usually engage in course work, literature review, and finalising their research topic. The shift to an online mode of operation had implications for doctoral students' research methodology because they had to adapt to new modes of study and research (Akala, 2023; Mitchell et al., 2023). For instance, in one case where internet connection was limited, an agriculture university in India uploaded lectures and course-related material onto the university's website, allowing students to download content and learn at their convenience (Muthuprasad et al., 2021). Teachers and students also interacted through WhatsApp, YouTube, LiveChat, and email. Bhagwan (2023) reported that in South Africa, universities made provision for devices and data packages to facilitate remote learning. Students from a study in India reported using alternative sources like Sci-Hub and sharing e-books on mobile devices to provide access to reading material (Singla & Kannamma, 2022). And in South Africa, scheduled and flexible use of online meeting platforms allowed doctoral students to continue their research while maintaining social distancing measures and receiving guidance from their supervisors (Akala, 2023; Mitchell et al., 2023).

Strategies to overcome restrictions on movement

Lack of access to the field meant substantial changes in students' methodology and a rethink of their research designs. According to Pereira et al. (2021), researchers had to rely on surveys and desk research because of the restrictions on movement. Although these methods allowed the research to progress, students in South Africa reported that they preferred face-to-face interaction with participants because that would have provided deeper engagement and richer data (Pereira et al., 2021). Students in India reported choosing to extend, halt, or change their project objectives and activities (Ramvilas et al., 2021). In India, the University Grants Commission of India (an apex body responsible for overseeing the higher education processes in the country) extended research deadlines, which helped to address students' ongoing challenges and gave them time to recalibrate and prepare.

Finding alternative sources of funding

To address funding-related challenges, some students from South Africa had to take jobs to support themselves and finance their studies (Masutha & Motala, 2023; Mitchell et al., 2023). In India, students in at Jawaharlal Nehru University continued to engage with the administration to highlight student issues by writing letters requesting the release of funds or alerting the university's attention to students' needs, with further requests to set up an online mental health helpline. In the face of ongoing financial difficulties, some students took loans and others considered dropping out (Alamu et al., 2023).

Navigating issues of well-being

To navigate the challenges of well-being, students from both countries reported leveraging available support systems such as talking to family members and, in some cases, the research supervisor. In addition, effective time management was reported (Makama & Peters, 2023; Singla & Kannamma, 2022). Singla and Kannamma (2022) also mentioned the use of self-study, self-help books, yoga, solace in God, and prayer as strategies among Indian students to keep themselves motivated. Students realised the need for resilience and commitment to academic goals to push through difficult circumstances (Balu, 2021; Makama & Peters, 2023). In an Indian study, students reported minimal use of social media to avoid potentially morbid effects (Singla & Kannamma, 2022). However, others in the second wave of the COVID-19 pandemic reported using social media to create a sense of community and to socialise (Bhakat & Das, 2023).

Discussion

A review of studies from both countries highlights the sudden disruption of students' research processes during the COVID-19 pandemic. Physical access to the university, as the review shows, is crucial for students to access essential research resources like reading material, personal reading space, access to the internet, laboratories, journal articles or secondary material, peer communities of support, and easy access to supervisors for guidance. Although students in South Africa and India who had access to the internet mitigated these challenges by connecting online with peers and supervisors, the prolonged nature of the pandemic and persistent lack of access to essential research resources meant that students' progress suffered or, in the case of economically vulnerable students, their research progress came to a halt, or they were at risk of dropping out. According to the *RTHE* social justice framework, educational institutions must have the necessary infrastructure to support students' pedagogical needs, which should be accessible to all students (Sabzalieva et al., 2022). This is necessary to break barriers to student success, especially among students most likely to drop out. However, as our review shows, the pandemic affected students' access to resources and raises concerns about inequity. Historically, affirmative action and scholarships in both countries have aimed to protect vulnerable students; however, the delay in scholarship disbursement meant economically vulnerable students had no financial protection. In addition, given the disruptive nature of the pandemic, which increased expenses, studies (Hlongwa, 2020; Ramvilas et al., 2021) from both countries highlighted the need for emergency funds.

The *RTHE* framework proposed that broadening the conception of student success in higher education was necessary, with focus on finishing a degree. This may help to identify the obstacles to success. Given the changing nature of doctoral education and its expectations in a knowledge-based economy, the *RTHE* framed student success as “work/career readiness, student education goals, and holistic development” along with the completion of a degree, especially for socially vulnerable students (Sabzalieva et al., 2022, p. 23). From this perspective, during the pandemic, students faced many barriers to their success—not just limited to resources but also

guidance and the adaptability of universities and supervisors in imparting specialised disciplinary practical skills to doctoral students like writing and training in field- or laboratory-based methods for their research. These barriers and uncertainty over future employment opportunities affected students' well-being, further affecting their chances to succeed. As the section on mitigation strategies suggests, students continued to show resilience and looked for alternative research methods. In the case of universities and higher education regulatory bodies, student support was limited to online internet access and conferencing tools. This highlights the issue of accountability, an important dimension of the *RTHE* framework, to create and sustain equitable learning environments.

Limitations of the study

Authors 1 and 3 are doctoral students in an Indian university where informal conversations with peers showed that many LGBTQIA+ students were unable to disclose their identity to family members, fearing adverse consequences; some had to adapt to traditional gender roles, which affected their well-being severely. However, this study was unable to explore LGBTQIA+ doctoral students' experiences of conducting research in either country. In addition, we did not find any personal accounts from doctoral students with disabilities during the pandemic in South Africa or in India.

Conclusion

The *RTHE* framework highlighted five conditions necessary to make higher education accessible and inclusive: availability, accessibility, acceptability, adaptability, and accountability. As our review shows, persistent systemic issues aggravated by the pandemic continued to hinder students' sustained access to pedagogical processes in higher education. This paper concludes by sharing recommendations, based on students' COVID-19 challenges, to overcome existing barriers to students' success in HEIs in South Africa and India so that all students can access higher education processes, making them more inclusive.

1. Higher education processes should be more adaptable, accepting of diverse student needs, and ready to ensure availability. University administrative processes need to be flexible. They should invest in robust digital infrastructure to provide students and teachers with reliable internet and online resources. Teachers and students should be trained in essential pedagogical digital skills necessary to reimagine and adapt pedagogical processes to meet the needs of the changing doctoral programmes, ensuring that marginalised groups have equal epistemic access to learning opportunities.
2. Supervisors and institutions should understand students' challenges more thoroughly and adapt the research process and academic expectations accordingly. In the supervisor–student relationship, supervisors should avoid unrealistic expectations, ensure

availability, and prioritise regular meetings to address students' academic needs, even in times of crisis.

3. Student well-being is tied to several factors, including reducing the number of stress factors at HEIs. These include a timely disbursement of fellowship funds, access to research resources, availability of a mental health helpline as non-negotiable to support student well-being, and understanding and emotional support from supervisors.
4. There is a need to create a contingency plan in case of emergencies to help ensure the continuation of the teaching and research process, including access to essential research resources for students. Funds should also be allocated to economically vulnerable students for unexpected research-related expenses.
5. Lastly, students' challenges in both countries also highlighted the limits of an output-based higher education system where the measure of student success is singular. Students' well-being challenges bring attention to a relational pedagogy (Gravett, 2022) characterised by care and dialogue, underscoring the importance of fostering relationships among teachers, mentors, and students to cultivate a sense of belonging and to facilitate meaningful learning. A relational pedagogy recognises knowledge production's social and communal nature (Lave & Wenger, 1991), and acknowledges the power dynamics within educational institutions where students often occupy disadvantaged positions. It necessitates the creation of safe spaces, the promotion of peer relationships, and the intentional design of inclusive research journeys to ensure equitable treatment and amplify historically unheard voices.

A re-examination of higher education processes and a new conception of student success are necessary to build equitable processes. In the meantime, teachers and students can use their daily interactions as opportunities to foster effective relationalities (Su & Wood, 2023). Further research is required to understand the realities of diverse students, institutional regulations, and mentors' roles to integrate relational pedagogy into everyday university practices and systems.

Author note

The authors declare no conflicts of interest. No financial support was received for this paper.

Acknowledgements

Initial findings related to this paper were first presented online at the National Institute of Humanities and Social Sciences Seminar titled, *Re-Imagining Research and Teaching and Learning During Times of Crisis* by University of Johannesburg. Special thanks to Yusuf Sayed, Shireen Motala, and Rekha Pappu who initiated this collaboration. We extend our gratitude to the anonymous *SARE* reviewers for their constructive feedback, which greatly improved the paper.

References

- Akala, B. (2023). Inclusivity and the remote doctorate supervision experience of a student with disability in a South African university. *African Journal of Teacher Education*, 12(1), 1–20. <https://doi.org/10.21083/ajote.v12i1.7285>
- Alamu, R., Roy, Y., & Das, S. (2023). The neglect of researchers during the first COVID-19 pandemic induced national lockdown in India: Inside the lives of JNU's research scholars. *Higher Education*, 86(2), 243–270. <https://doi.org/10.1007/s10734-022-00927-4>
- Badat, S. (2010). *The challenges of transformation in higher education and training institutions in South Africa*. Development Bank of Southern Africa. <https://tinyurl.com/4h3vxjbj>
- Balu, G. (2021). In search of writing COVID-19 and research. *Economic & Political Weekly*, 56(52). <https://www.epw.in/journal/2021/52>
- Bapat, P., Bhat, S., Chakraborty, C., Chirmule, N., Kadam, R., Kashyap, S., Masurkar, S., Paul, R., Rao, D., Reddy, R., & Togar, T. (2021). Mentoring during the COVID-19 pandemic: A perspective from graduate students in biomedical science studies in India. *Proceedings of the Indian National Science Academy*, 87(2), 320–323. <https://doi.org/10.1007/s43538-021-00002-z>
- Behera, M., & Mathew, N. V. (2022). Underrepresentation of marginalised groups in India's higher education institutions: A critical analysis. *Indian Journal of Human Development*, 16(3), 618–626. <https://doi.org/10.1177/09737030221146017>
- Bhagwan, R. (2023). Insights into the effects of the COVID-19 pandemic on postgraduate students at a university of technology. *Perspectives in Education*, 41(4), 312–328. <https://doi.org/10.38140/pie.v41i4.6668>
- Bhakat, P., & Das, K. (2023). Status of mental health among college and university students during first and second wave of COVID-19 outbreak in India: A cross-sectional study. *Journal of Affective Disorders Reports*, 12(1), 100494. <http://dx.doi.org/10.1016/j.jadr.2023.100494>
- Bhoi, D., & Lakra, N. R. (2022). Marginality, educational opportunity and access to higher education: Experiences of scheduled caste and tribe students in India. *Contemporary Voice of Dalit*. <https://doi.org/10.1177/2455328X221129453>
- Bose, A. (2023). Learner diversity in higher education: Articulations of diverse subjectivities through everyday life experiences. *Society and Culture in South Asia*, 9(2), 264–298. <https://doi.org/10.1177/23938617231156549>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Cardoso, S., Santos, S., Diogo, S., Soares, D., & Carvalho, T. (2022). The transformation of doctoral education: A systematic literature review. *Higher Education*, 84, 885–908. <https://doi.org/10.1007/s10734-021-00805-5>
- Cele, N. O., & Menon, K. (2007). Social exclusion, access, and the restructuring of higher education. *South African Journal of Higher Education*, 20(3), 400–412. <https://doi.org/10.4314/sajhe.v20i3.25584>

- Chigona, A., & L. Sosibo. (2024). Research and postgraduate supervision during the Coronavirus-19 pandemic: Lessons learned. *South African Journal of Higher Education* 38(1), 42–61. <https://doi.org/10.20853/38-1-6281>.
- Chiramba, O., & Ndofirepi, E. S. (2023). Access and success in higher education: Disadvantaged students' lived experiences beyond funding hurdles at a metropolitan South African university. *South African Journal of Higher Education*, 37(6), 56–75. <https://doi.org/10.20853/37-6-6021>
- Chitlangia, R. (2024, 03 January). Nearly 2,000 beneficiaries of now-cancelled Maulana Azad fellowship await a stipend hike. *The Print*. <https://theprint.in/india/governance/nearly-2000-beneficiaries-of-now-cancelled-maulana-azad-fellowship-await-stipend-hike/1909345/>
- Council on Higher Education. (2022). *National review of South African doctoral qualifications 2020–2021: Doctoral degrees national report*. <https://tinyurl.com/y89sfu6p>
- Das, D. N., & Chattopadhyay, S. (2014). Academic performance indicators: straitjacketing higher education. *Economic and Political Weekly*, 49(50), 68–71. https://www.researchgate.net/publication/320322782_Academic_Performance_Indicators_Straitjacketing_Higher_Education
- Government of India. (2020). *National education policy (NEP) 2020*. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- Government of India. (2024a). *All India survey on higher education 2021–22*. <https://cdnbbsr.s3waas.gov.in/s392049debbe566ca5782a3045cf300a3c/uploads/2024/02/20240719952688509.pdf>
- Government of India. (2024b). *National eligibility test (NET) as an entrance test for admission to PhD*. https://www.ugc.gov.in/pdfnews/6669193_Letter-NET-for-Admission-to-PhD.pdf
- Gravett, K. (2022). *Relational pedagogies: Connections and mattering in higher education*. Bloomsbury.
- Hlongwa, M. (2020). Effects of COVID-19 lockdowns on PhD candidates. *Pan African Medical Journal*, 35(2), 123. <https://doi.org/10.11604/pamj.supp.2020.35.2.25117>
- Hoque, M. (2024). The psychological well-being during the COVID-19 lockdown of doctoral students at a private higher education institution in South Africa: An application of self-determination theory. *South African Journal of Higher Education*, 38(1), 217–26. <https://doi.org/10.20853/38-1-6245>
- Idahosa, G. E., & Mkhize, Z. (2021). Intersectional experiences of Black South African female doctoral students in STEM: Participation, success and retention. *Agenda*, 35(2), 110–122, <https://doi.org/10.1080/10130950.2021.1919533>
- Jayaram, N. (1979). Higher education, inequality and social change in India. *Sociological Bulletin*, 28(1/2), 46–58. <https://doi.org/10.1177/0038022919790104>
- Kapasias, N., Paul, P., Roy, A., Das, P., Ghosh, T., & Chouhan, P. (2022). Perceived academic satisfaction level, psychological stress, and academic risk among Indian students amidst COVID-19 pandemic. *Heliyon*, 8(5), e09440. <https://dx.doi.org/10.1016/j.heliyon.2022.e09440>

- Keane, M., Raciti, M., van der Westhuizen, G., Motala, S., Stanton, S., Gilbey, K., Manathunga, C., Qi, J., & Msimango, S. (2023). Indigenous knowledge systems in South Africa and Australia: Transforming doctoral education. *Curriculum Perspectives*, 43(S1), 83–93. <https://doi.org/10.1007/s41297-023-00183-1>
- Kunju, S. (2020, August 7). Research scholars complain non-payment of fellowships. *NDTV Education*. <https://www.ndtv.com/education/research-scholars-complain-non-payment-of-fellowships-2276077>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- Maboe, K. A. (2024). Obstacles for postgraduate health students at a South African distance-learning institute during the COVID-19 pandemic: A phenomenological study. *Cogent Education*, 11(1), 2359874. <https://doi.org/10.1080/2331186X.2024.2359874>
- Makama, R., & Peters, S. (2023). PhDing while panicking in a pandemic. *PINS-Psychology in Society*, 65(1). <https://doi.org/10.57157/pins2023vol65iss1a5855>
- Maluleka, J. R., & Ngoepe, M. (2019). An analysis of the throughput rate of doctoral students in LIS schools in South Africa, 2005–2015. *Mousaion: South African Journal of Information Studies*, 36(3), 1–15. <https://doi.org/10.25159/2663-659X/3710>
- Masutha, M., & Motala, S. (2023). Free yet? Progress, setbacks, tensions and the potential futures of South Africa’s free higher education policy: A 6-year “WPR” critical review. *South African Journal of Higher Education* 37(6), 193–216. <https://dx.doi.org/10.20853/37-6-6198>
- Menon, K., & Motala, S. (2022). Pandemic disruptions to access to higher education in South Africa: A dream deferred? *South African Journal of Higher Education*, 36(4), 47–65. <https://doi.org/10.20853/36-4-5188>
- Mitchell, V., Gredley, S., & Carette, L. (2023). Participatory relationships matter: Doctoral students traversing the academy. *Qualitative Inquiry*, 29(1), 232–243. <https://doi.org/10.1177/10778004221101591>
- Molla, T., & Cuthbert, D. (2016). In pursuit of the African PhD: A critical survey of emergent policy issues in select sub-Saharan African nations, Ethiopia, Ghana, and South Africa. *Policy Futures in Education*, 14(6), 635–654. <https://doi.org/10.1177/1478210316641567>
- Mondal, S., Pantoji, M., Divya, K., Deora, H., Shashidhar, A., Baishya, J., Garg, D., Elavarasi, A., Pahwa, B., Mehta, U., Tikka, S., Wadwekar, V., Dubey, S., Jain, K., Kumar, B., Viswanathan, L., & Asranna, A. (2023). COVID-19 pandemic and neurosciences in India—the coin study: Impact on neuroscience research and early career researchers. *Journal of the Neurological Sciences*, 455. <https://doi.org/10.1016/j.jns.2023.122563>
- Muchaku, S., Mwale, M., Magaiza, G., & Tjale, M. M. (2024). No doctoral studies without hurdles: A review on pathways to prevent dropouts. *Interdisciplinary Journal of Education Research*, 6, 1–12. <https://doi.org/10.38140/ijer-2024.vol6.14>
- Mudzi, P. Y., & Mudzi, W. (2022). Navigating postgraduate research during the COVID-19 pandemic: A scoping review. *Curationis*, 45(1), a2373. <https://doi.org/10.4102/curationis.V45i1.2373>

- Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during the COVID-19 pandemic. *Social Sciences & Humanities Open*, 3(1), 100101. <https://doi.org/10.1016/j.ssaho.2020.100101>
- Namakula, H., & Ndaba, M. (2024). Leaving no one behind: Leveraging support to promote access with success in post-graduate studies. *South African Journal of Higher Education*, 38(1), 28–41. <https://doi.org/10.20853/38-1-6248>
- Narwana, K., & Gill, A. S. (2020). Beyond access and inclusion: Dalit experiences of participation in higher education in rural Punjab. *Contemporary Voice of Dalit*, 12(2), 234–248. <https://doi.org/10.1177/2455328X20925592>
- Navani, M. T. (2020). Transition to HE and equitable learning outcomes: Challenges for Indian higher education. *Higher Education for the Future*, 7(2), 118–131. <https://doi.org/10.1177/2347631120930537>
- Niazi, S. (2021, February 12). Government proposes nine higher education hub cities. *University World News*. <https://www.universityworldnews.com/post.php?story=20210212075752727>
- Osman, R., & Maringe, F. (2019). *Transformation in higher education in South Africa toward the decolonization of South African universities*. Research Encyclopedia of Education. <https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-202>
- Pereira, C., Sullivan, P., & Kayari, U. (2021). *Research in a time of COVID-19: Lessons from Southern Africa* (Synthesis report of the #Openupyourthinking researchers' challenge). JET Education Services. <https://www.jet.org.za/resources/sadc-research-in-a-time-of-covid-19-synthesis-report-finalv2-1.pdf>
- Pillay, P., & Jarbandhan, V. (2023). Technological adoption and doctoral supervision during the COVID-19 pandemic: Challenges and opportunities for students and supervisors in South African universities. *African Journal of Public Administration*, 14(1), 123–145. https://hdl.handle.net/10520/ejc-ajpa_v14_n1_a6
- Ramvilas, G., Dhyani, S., Kumar, B., Sinha, N., Raghavan, R., Selvaraj, G., Divakar, N., Anoop, V. K., Shalu, K., Sinha, A., Kulkarni, A., Das, S., & Molur, S. (2021). Insights on COVID-19 impacts, challenges and opportunities for India's biodiversity research: From complexity to building adaptations. *Biological Conservation*, 255, 109003. <https://doi.org/10.1016/j.biocon.2021.109003>
- Republic of South Africa. (n.d.). *Department of Higher Education and Training: Revised strategic plan 2020–2025*. <https://tinyurl.com/yyh53az7>
- Republic of South Africa. (2023). *Department of Higher Education and Training: Statistics on post-school education and training in South Africa: 2021*. <https://tinyurl.com/37dmejz>
- Sabri, D. (2011). What's wrong with “the student experience”? *Discourse: Studies in the Cultural Politics of Education*, 32(5), 657–667. <https://doi.org/10.1080/01596306.2011.620750>
- Sabzalieva, E., Gallegos, D., Yerovi Verano, C. A., Chacón, E., Mutize, T., Morales, D., & Cuadros, J. A. (2022). *The right to higher education: A social justice perspective*. UNESCO International Institute for Higher Education in Latin America and the Caribbean. <https://unesdoc.unesco.org/ark:/48223/pf0000381750>

- Sarrico, C. S. (2022). The expansion of doctoral education and the changing nature and purpose of the doctorate. *Higher Education*, 84(6), 1299–1315. <https://doi.org/10.1007/s10734-022-00946-1>
- Shah, P. J. (2015). *Regulatory structure of higher education in India*. Centre for Civil Society.
- Singh, M. (2011). The place of social justice in higher education and social change discourses. *Compare: A Journal of Comparative and International Education*, 41(4), 481–494. <https://doi.org/10.1080/03057925.2011.581515>
- Singla, E., & Kannamma, E. (2022). COVID-19: Doctoral student experiences and recommendations. *Riyaz*, 3(1). https://tiss.edu/uploads/files/Riyaz_May_2022_compressed.pdf
- Sosibo, L. (2024). Key factors contributing to postgraduate students' success: Making a case for Coronavirus-19 and beyond. *South African Journal of Higher Education*, 38(1). <https://doi.org/10.20853/38-1-6263>
- Su, F., & Wood, M. (2023). Relational pedagogy in higher education: What might it look like in practice and how do we develop it? *International Journal for Academic Development*, 28(2), 230–233. <https://doi.org/10.1080/1360144X.2023.2164859>
- van Lill, M. H. (2024). A study of doctoral time-to-degree in selected disciplines at South African public universities. *South African Journal of Higher Education*, 38(1), 168–88. <http://dx.doi.org/10.20853/38-1-6268>
- Wankhede, G. (2015). Perspectives on social group disparities in higher education. In N. V. Varghese & G. Malik (Eds.), *India higher education report 2015* (pp. 97–112). Routledge. <https://doi.org/10.4324/9781315651163>
- Xaxa, V. (2014). *Report on the high level committee on socio-economic, health and educational status of tribal communities of India*. Ministry of Tribal Affairs, Government of India. <https://archive.nyu.edu/handle/2451/36746>

Notes on the authors

Ekta Singla is an Indian Council of Social Science Research doctoral fellow at the Centre of Excellence in Teacher Education, Tata Institute of Social Sciences, Mumbai.

Halima Namakula is a post-doctoral research fellow at the SARChI Chair for Teaching and Learning, University of Johannesburg, South Africa. She holds a Doctorate in Education from University of Witwatersrand, South Africa.

Emaya Kannamma is a doctoral scholar at the Centre of Excellence in Teacher Education, and Academic Lead, Teaching Excellence Lab, Pune.

Address for correspondence

ek.singla@gmail.com

Deliberating on student protests and the COVID-19 pandemic disruptions: The South African higher education case

Otilia Chiramba and Shireen Motala
University of Johannesburg

Abstract

Higher education in South Africa was significantly impacted by the student protests of 2015/2016 and the COVID-19 pandemic. The protests, motivated by concerns over decolonising higher education, high tuition fees, campus safety, and equitable access to education, disrupted teaching and learning across South African universities. The pandemic compelled a transition to remote learning, posing challenges for students who lacked technology and reliable internet access. These disruptions presented challenges to academic continuity and student engagement, underscoring the need for greater flexibility in higher education systems, especially in the delivery of teaching and learning during crises. The issues underlying the protests and the pandemic were connected to the apartheid era, which perpetuated inequality and underinvestment in Black communities, contributing to the challenges faced by students. Decolonisation has not fully addressed the knowledge project, leading to a partial understanding and practice of decolonisation in the sector. The convergence of the pandemic and the decolonisation movement in South Africa posed additional obstacles for higher education institutions, which involve addressing the pandemic's effects and responding to the demands for decolonisation. In this conceptual paper, we argue that the student protests of 2015/2016 and the COVID-19 pandemic have highlighted and worsened underlying problems within South African higher education. The events have emphasised the need for comprehensive structural and systemic reforms in the higher education sector. Institutions are grappling with tough choices regarding resource distribution, curriculum restructuring, and student support. And, without a holistic understanding, misdiagnosis and misdirection of policy and research could hinder transformative efforts in higher education. We conclude by emphasising the necessity for fundamental changes to be made in the higher education system of South Africa so that education will not be disrupted during future crises.

Keywords: COVID-19, crises, decolonisation, disruption, student protests

Chiramba, O., & Motala, S. (2024). Deliberating on student protests and the COVID-19 pandemic disruptions: The South African higher education case. *Southern African Review of Education*, 29(1), 152–165.

Introduction

The student protests of 2015/2016 and the COVID-19 pandemic have had a huge impact on higher education in South Africa. The authors contend that the protests have been a consistent disruptor in South African higher education's teaching and learning processes. Since 2015, students have protested over issues such as increased or unaffordable tuition fees, and lack of campus safety and equitable access to education (Williams, 2017). These protests have sometimes turned violent, resulting in damage to property, clashes with the police, and university closures. In 2020, the pandemic led to the closure of universities and a shift to online learning, which posed considerable difficulties for many students who did not have access to the required technology and internet connectivity (Maphalala et al., 2021). Additionally, the pandemic had a profound impact on students' mental health and well-being, particularly those who had to isolate or quarantine (Chiramba & Maringe, 2022). Unlike natural phenomena, student protests are instigated by deliberate forces at a specific moment, rather than arising organically. Conversely, the COVID-19 pandemic was the reaction to a natural occurrence—the transmission of a zoonotic virus into the human population. Even though human activity played a role in this transmission, it was largely unplanned and unforeseen.

The disruptions caused by the pandemic and student protests significantly impacted academic continuity and student engagement. Many universities faced serious challenges in maintaining necessary infrastructure and support services to ensure students could continue their studies effectively (Walton, 2018). Thus the disruptions underscored the need for greater flexibility and resilience within higher education systems, especially during times of crisis. The apartheid era is linked to the issues of student protests and the impacts of the COVID-19 pandemic in South Africa due to its enduring legacy of inequality and underinvestment in Black communities (Fleras, 2022). And that legacy contributes to the difficulties faced by students today. This paper argues that the student protests of 2015/2016 and the COVID-19 pandemic were significant disruptions that exposed and intensified longstanding issues within South African higher education, highlighting the necessity for broader structural and systemic changes.

In this paper, we conducted a comprehensive literature review to explore scholarly works related to the 2015/16 student protests and the COVID-19 pandemic. The search strategy involved querying multiple databases using keywords such as “disruptions in higher education,” “#RhodesMustFall,” “#FeesMustFall,” “crises,” “decolonisation,” and “COVID-19 disruptions in higher education.” The paper begins by providing background to the South African context and goes on to conceptualise the two terms, “crises and disruptions” and “transformation.” It then analyses the disruptive nature of student-initiated decolonisation protests and the COVID-19 pandemic, and reconsiders the knowledge question in the Pan-African context. It concludes by noting how some of the critical issues in the Global South should be taken forward conceptually, theoretically, and empirically.

Background to the South African context

The apartheid era in South Africa, spanning from 1948 to 1994, is closely linked to the current issues of student protests and the impacts of the COVID-19 pandemic in the country. During apartheid, the government enacted policies that systematically disadvantaged Black South Africans in education, housing, and employment opportunities. Black people were racially segregated and given fewer resources, and institutions were designed to maintain White supremacy (Rensburg, 2020). This legacy of inequality and neglect in Black communities has continued in post-apartheid South Africa, contributing to the challenges driving student protests today, such as the high cost of education and insufficient access to adequate resources and facilities. The student protests of 2015/2016 were closely tied to the legacy of the apartheid system. Conversely, although the COVID-19 pandemic's impact was worsened by this legacy, it was not a direct result of apartheid in the same way as the protests. However, this exacerbation of effects, especially for marginalised and impoverished people, underscores the enduring influence of apartheid's legacy. Furthermore, the COVID-19 pandemic highlighted the structural inequalities in South Africa, with poor and marginalised communities bearing the brunt of the disease's impact. This compounded the existing inequalities in higher education as students from low-income backgrounds encountered extra obstacles in accessing online learning and other academic assistance (Woldegiorgis, 2022).

South Africa's post-apartheid higher education institution (HEI) system underwent restructuring as the government sought to address apartheid legacy related challenges (Mzangwa, 2019). This restructuring involved closing teacher training colleges as part of the process of creating mergers in the form of universities of technology and comprehensive universities. Currently, South Africa's 26 public HEIs have around 1,000,000 students across nine provinces (Abed & Ackers, 2021). Despite reforms such as the *Higher Education Act* (Republic of South Africa, 1997) intended to transform the universities, HEIs continue to mirror the racial inequalities ingrained in their apartheid past. The #RhodesMustFall movement at the University of Cape Town in 2015 and subsequently, the #FeesMustFall movement in 2016 emerged within this backdrop. The spark for the #FeesMustFall movement was the introduction of a 10% fee increase at the University of the Witwatersrand. This led to extensive demonstrations nationwide, rallying against the financial barriers to higher education especially affecting marginalised Black students (Centre for the Study of Violence and Reconciliation, 2017). The COVID-19 pandemic further disrupted higher education in South Africa, as it did globally. In response to the pandemic, universities were forced to rapidly change their usual way of doing things and this presented several challenges for teaching and learning. COVID-19 was a global pandemic caused by the spread of the SARS-CoV-2 virus, and was considered a crisis because it led to widespread illness, death, and lockdowns accompanied by the closure of academic institutions and economic disruption—not only in South Africa but around the world (Ivanov & Das, 2020). The pandemic highlighted issues such as healthcare inequality, inadequate social safety nets, and the need for effective global cooperation in addressing public health crises (Chiramba, 2021).

Defining crises and disruptions

A crisis has been defined as an unstable precipitating event that causes danger—often, an event that threatens to result in unpleasant consequences. Crises evoke several reactions that are both negative and positive. In crises, people undergo physical and emotional strain. Some crises are externally driven, including floods, earthquakes, nuclear disasters, and pandemics (Rush, 2018). Other crises are internally driven, including student protests and strikes by university staff (Maringe & Chiramba, 2020). When faced with crisis, people figure out survival mechanisms and, in the process, act within the disruptive nature of the crisis. Crises are a major cause of disruptions in higher education and societies at large.

In general, the term “disruption” is a double-edged sword. On the one hand, negatively, it speaks to forces that disturb the status quo, causing unexpected, undesirable, and uncomfortable consequences. On the other hand, and positively, the term speaks to the human agency used to consider an idea or practice through processes of analysis and reflection, to lay bare the meanings of the new idea, critiquing its current practice, and finding new ways of forging ahead with it. Seen this way, disruption has both analytic and transformative potential. In the context of COVID-19, a crisis refers to the sudden and widespread impact of the pandemic on individuals, communities, and societies worldwide. The COVID-19 pandemic disrupted various aspects of daily life such as education, health care, employment, and social interactions.

Regarding student-led efforts to ensure decolonisation in South Africa, a crisis refers to the social and political unrest that has occurred in the country’s universities such as the protests in 2015/2016. In recent years, South African students have been advocating decolonisation of the country’s education system, which they view as perpetuating colonial legacies of inequality, racism and exclusion (Motala, 2020; Walton, 2018). The protests and activism led by students disrupted the traditional academic calendar and universities had to implement new policies and procedures to address students’ demands. However, the COVID-19 pandemic further complicated the situation, causing disruptions to learning, teaching, and research activities (Chiramba, 2021). In addition, COVID-19 safety measures, such as physical distancing and limited campus access, made it challenging for students to organise and participate in protests and other forms of activism.

Understanding the disruptive nature of student-initiated decolonisation protests and the COVID-19 pandemic

This section explores the underlying causes of the two events and their interpretation. It also examines how HEIs responded to these events. Twenty-one years after the decolonisation agenda was introduced, students protested in 2015 and 2016, demanding a curriculum rooted in Afrocentric principles and incorporating references to African authors. These protests had a positive impact, alerting researchers and university leaders to the slow progress of the decolonisation project and highlighting the need for recommendations to develop effective solutions. The second aspect of epistemic disruption occurred when protests disrupted the usual

course of events, significantly curtailing or severely impacting epistemological gains and access (Rodriguez, 2009). The negative impact was when the protests caused, for example, teaching and learning stoppages.

The 2015 and 2016 student protests questioned the taken-for-granted foundations of higher education, primarily because of their demand for its decolonisation. The protests sought to disrupt the curriculum and argued that, despite the call for decolonisation, the ideologies of Eurocentrism still influence it, and that the examination systems are designed to exclude the majority from academic success. Both protests awakened universities and their leaders to embark on programmes designed to mitigate students' lack of intellectual and cultural capital necessary to deal with the needs of higher education studies. The epistemological and methodological trends in research on students' access and success are significantly influenced by global theoretical frameworks, which often overlook local contexts. Consequently, there is a need for decolonial approaches that promote social justice and consider the unique circumstances of students' agency and experiences (Cross & Govender, 2022).

These 2015 and 2016 student protests tackled issues concerning access, inclusion, curriculum, and the erasure of certain knowledge systems. They called for the removal of repressive institutional frameworks, a thorough revision of university curricula, and a challenge to the cultural norms that marginalised and oppressed Black students—as highlighted by Muswede (2017) and Fataar (2022). Although the decolonisation movement expanded to encompass a variety of concerns reflecting the diverse experiences within institutions, its primary emphasis remained on rectifying the knowledge and resource inequalities that define how Black students experience university life (Fataar, 2022; Muswede, 2017). At its core, the student movement demanded the decolonisation of university spaces and curricula to incorporate a broader range of voices and experiences.

This demand transcended the scope of previous initiatives in South Africa's higher education, which primarily focused on issues like demographic representation, inclusivity, access, and support, reflecting a more liberal perspective, as highlighted by Fataar (2022). Decolonisation seeks radical epistemological, economic, and political disruption of coloniality in education and society. It involves three key issues: whose knowledge is prioritised, material concerns like resource allocation and economic deprivation, and the nature of pedagogic acts including care and support for student access (Joseph, 2017; Mamdani, 2016; Mignolo, 2011; Morreira, 2017). The curriculum embodies the institutional context, teaching practices, and values inherent in education—thus viewing decolonisation as an intellectual and resource movement (Chiramba & Motala, 2023).

In the South African protests by students, curriculum decolonisation required addressing both knowledge access and the pedagogic experiences, while also managing resource constraints that hinder significant transformation. Transformation in higher education in South Africa happens in a context where many historically disadvantaged students achieve physical access but struggle to get epistemological access due to limited state and institutional resources. Despite expanded physical access, state funding has not kept pace and has decreased over time. Consequently, students face

significant challenges in sustaining their education, making decolonisation a fight for the material conditions necessary for meaningful learning. Students at formerly disadvantaged institutions emphasised material concerns during the student protests.

Even though much has been written about the potential for decolonisation and its impact on universities (Cross, 2020; Morreira, 2017), discussions often overlook how students experience teaching and learning following the reforms initiated by #RhodesMustFall and #FeesMustFall. A comprehensive interpretation of decolonisation in education involves listening to students' perspectives, addressing the needs of all individuals, and actively responding to each student's unique requirements. The COVID-19 pandemic also had a significant impact on teaching and learning in South African HEIs. According to a study by Adedoyin and Soykan (2020), the pandemic forced HEIs to adopt online and blended learning models to ensure continuity of teaching and learning. Motala and Menon (2020) also emphasised the emergence of a new standard where teaching and learning activities transitioned entirely to online platforms, prompting academic staff to swiftly equip themselves for this change. However, that shift was not without challenges because many students and educators faced obstacles related to inadequate infrastructure and technology, limited access to resources, and challenges related to online assessment and monitoring. This not only put pressure on academics and students, but the families of both—and other stakeholders were negatively affected too.

A study by du Plessis et al. (2022) reported that the pandemic also highlighted existing inequalities in South African higher education, particularly concerning access to technology and resources. Mpungose (2020) emphasised that disadvantaged students face barriers in fully embracing e-learning. He suggested a novel approach to address this issue, advocating for universities to explore unconventional avenues such as social media platforms like WhatsApp and Facebook to complement the existing learning management systems for online lectures. We argue that various alternative ways could help address these inequalities and it should be a priority for HEIs to ensure equitable access to education for all students.

Research conducted by Govender et al. (2021) emphasised the necessity for HEIs to offer extra assistance to students amidst the pandemic. This support encompassed mental health aid, academic guidance, and financial relief. Their study posited that the swift alterations and disturbances to regular academic routines left numerous students experiencing social isolation and grappling with overwhelming uncertainty. Those authors recommended HEIs implement a teaching and learning approach centred on students, one that acknowledges the distinct requirements and situations of each individual student.

University, transformation, the knowledge question, and weak answers

Both the student protests of 2015/2016 and the COVID-19 pandemic caused significant disruptions in higher education teaching and learning. And, there are several similarities and differences in how the events unfolded in the two crises. Looking at the similarities, it seems both the student protests and the pandemic led to rapid shifts to online learning (Gelles et al., 2020). In

both cases, universities had to adapt quickly to deliver course content and facilitate remote learning. Both events disrupted the regular academic calendars of universities (Gelles et al., 2020). The student protests often resulted in class cancellations, and the pandemic led to extended closures and the need for alternative teaching methods. Both disruptions posed challenges in engaging students effectively. During the protests, students were often preoccupied with the issues at hand, leading to decreased focus on coursework. Similarly, during the pandemic, students faced various distractions and difficulties in adapting to remote learning (Peace, 2021). Both events exerted a notable influence on the psychological well-being of students. The protests and pandemic induced feelings of stress, anxiety, and uncertainty among students, subsequently impacting their overall wellness and academic achievements.

However, there are also differences in how these two crises happened. The student protests were primarily focused on specific social and political issues in South Africa such as tuition fees, racial inequality, and campus safety. On the other hand, the COVID-19 pandemic was a global health crisis that affected all aspects of society including higher education. This meant that the student protests were typically localised events and lasted for a relatively shorter period, ranging from weeks to a few months. In contrast, the pandemic was a long-lasting global crisis, affecting HEIs worldwide for over a year—and longer in some regions (della Porta, 2022). Although both disruptions led to an increased reliance on online learning, the student protests primarily disrupted in-person classes and campus activities. The COVID-19 pandemic, on the other hand, necessitated a complete shift to remote learning for an extended period. The responses of HEIs also differed in each case. During the student protests, universities often had to negotiate with student groups and address specific demands. In response to the pandemic, institutions had to quickly adopt new technologies and implement health protocols to ensure the safety of students and staff.

The primary role of universities ought to centre on generating, sharing, and translating knowledge into practical innovations for societal benefit (Altbach, 2016). Achieving this requires a reimagining of the discourse on knowledge transformation. According to Mbembe (2015), the transformation of knowledge within African universities entails shifting the focus of knowledge production systems to challenge the dominance of Western canons, thus establishing a new, universally inclusive knowledge paradigm while addressing epistemic violence. Amidst this pursuit of knowledge transformation, critical questions arise regarding the nature and ownership of knowledge (Mbembe, 2015).

De Sousa Santos (2014) contended that responses to inquiries regarding knowledge frequently exhibit partiality and fragility. Keet (2021) observed that embracing the concept of *decolonisation of knowledge* requires recognising it as the combined efforts of disciplinary practices to effectively combat the epistemic injustices inherent in all forms of knowledge, thus demonstrating a dedication to achieving epistemic justice. Boughey and McKenna (2021) and Stuart and Shay (2019) suggested that in the context of South African research, we need work that builds theory. Noting decolonisation discourses as a specific instance, we do not have a theory of what decolonised knowledge looks like. The shift toward decentralising a European curriculum and

recentring an African curriculum has not materialised due to the significant changes in the politics surrounding knowledge production in our interconnected world over time (Jansen & Walters, 2022).

The questions about the curriculum and the problems and politics of knowledge production in Africa have been ongoing as academics and teachers translate this into syllabi to meet the institutional and academic curriculum requirements. The former focuses on the knowledge, beliefs, and values that then get translated into rules, regulations, and procedures and the latter into the organisation of disciplinary knowledge. A radical approach to decolonisation would not solely address the lingering impacts of colonialism but would also grapple with the opportunities (such as research collaboration) and limitations (such as research funding) presented by the contemporary global landscape of knowledge creation (Keet, 2014). This pursuit aims for a deeper and more lasting transformation of institutional curricula.

Literature on decolonisation in South Africa makes the following observations. To start, South Africa joined the decolonisation discussions relatively late in the timeline of African liberation, as previously explained. Those discussions had already been extensively explored in writings on anti-colonial struggles and studies on post-colonial literature. In South Africa, Latin American scholars' terminology has been employed without due consideration to relevant application and context. The discussion on binaries and centre–periphery has been questioned, in line with some of the discussions above. The essence lies in the fact that within the global knowledge production landscape, there is a notable and increasing input of social and scientific knowledge from Southern regions. This emergence underscores novel models of collaboration that challenge simplistic binary perspectives (Jansen & Walters, 2022).

The COVID-19 pandemic significantly impacted higher education in South Africa, particularly in terms of knowledge transformation (Badat, 2020). As universities and other HEIs had to adapt to the new reality of remote learning and social distancing, the way knowledge is generated, disseminated, and applied underwent significant transformation (Mhlanga et al., 2022). One of the most significant ways in which COVID-19 impacted knowledge transformation in higher education in South Africa was through the increased use of digital technologies. Because institutions had to shift to remote learning, they needed to rely more heavily on digital technologies to deliver courses and facilitate student learning (Jena, 2020). This required educators to change the way they teach to suit online teaching, and required students to develop new digital literacy skills. Another important way in which COVID-19 affected knowledge transformation in higher education in South Africa was through its impact on research (Mhlanga et al., 2022). Researchers had to adapt to new ways of conducting research, particularly in terms of data collection and analysis. They also had to consider the impact of COVID-19 on their research subjects and adjust their methods accordingly.

Furthermore, the pandemic revealed the significance of interdisciplinary collaboration in knowledge transformation (Fujita, 2020). As researchers and educators grappled with the complex barriers brought by the pandemic, they had to draw on a wide range of disciplinary perspectives

and knowledge domains to find solutions. This required greater collaboration across disciplines and highlighted the importance of knowledge integration and synthesis. Even though there were instances of support for students and staff in higher education, there were several unaddressed challenges. These pertained to the difficulties of transitioning to online teaching and learning. Many lecturers and students had to quickly adapt to new online teaching methods and tools that required a steep learning curve and significant effort (Ratten, 2020).

Another significant challenge had to do with technical difficulties. Online teaching requires access to reliable internet connectivity, computers, webcams, and microphones, which were not always available or accessible to lecturers and students, especially those from disadvantaged backgrounds (Oranburg, 2020). Limited interaction with students was another crippling challenge. Online teaching can be isolating, and lacks the in-person interaction that lecturers and students are used to (Moorhouse & Kohnke, 2021). This can lead to a lack of motivation and engagement, and to a sense of disconnection.

Managing their workload was also a challenge for lecturers. Online teaching can be more time-consuming than in-person teaching, and some lecturers reported feeling overwhelmed by the workload, especially when trying to manage multiple courses or large class sizes (Ratten, 2020). Another issue pertained to assessments and exams. The pandemic made it difficult to administer traditional forms of assessment such as exams, which required the development of new assessment methods that could be administered remotely (Dhawan, 2020).

What are the unanswered questions?

Critical questions to consider include our contributions to theory building in the Global South and Pan-African context. Do we understand decolonised knowledge and its antecedents, especially contributions from diverse disciplines like the humanities? Is there enough cross-disciplinary perspective, and what new evidence supports current research on decolonisation? Do our claims have sufficient empirical backing? Regarding Global South influences, Latin American perspectives dominate decolonisation discussions; how do we acknowledge South African and Pan-African contributions? Lastly, is the decolonisation debate yielding new discussions on knowledge, theory building, curriculum, and institutional change?

These are just a few of the many unanswered questions about improving higher education teaching and learning that arose during the COVID-19 pandemic. More questions will probably emerge as we continue to navigate the after-effects of this challenging time. The most critical question is how institutions can make sure that students acquire access to the essential technology and resources for successful remote learning, if needed. Additionally, it's important to consider the most effective approaches to assessing student learning in remote and hybrid formats. Further research should also explore the extent to which the shift to remote learning affected student engagement and success. Moreover, the pandemic's effect on the mental health and well-being of students and faculty remains an issue that lacks comprehensive exploration.

Conclusion

The demands for decolonisation and the COVID-19 pandemic generated crises that brought much disruption to the academy, and to the politics of institutions. The protests prompted inquiries into the frameworks of power and knowledge, questioning established epistemologies and structures. These led to the realisation that decolonisation is partially understood and, therefore, partially practised in higher education. For example, the knowledge project has remained largely untouched in decolonisation. If we lack a comprehensive understanding of what is involved in the decolonisation of higher education, there is a chance of misdiagnosing and misdirecting policy intent and research, which may not help transform the sector.

The COVID-19 pandemic also significantly impacted knowledge transformation in higher education in South Africa. It required educators and researchers to change to new means of generating, disseminating, and applying knowledge and revealed the significance of digital literacy, interdisciplinary collaboration, and knowledge integration. The pandemic placed significant pressure on lecturers, requiring them to adapt quickly to new technologies and teaching methods while navigating a range of logistical and technical challenges. Despite these challenges, some lecturers rose to the occasion, demonstrating resilience, creativity, and innovation in delivering education to their students.

The intersection of these two crises led to further challenges for HEIs in South Africa as they tried to navigate the impacts of the pandemic while also responding to the demands of the decolonisation movement. Institutions faced difficult decisions around resource allocation, curriculum reform, and how to best support students during that challenging time. The COVID-19 pandemic and the student-led decolonisation movement have highlighted the need for systemic change in higher education in South Africa and the importance of prioritising the needs and voices of students in these discussions.

The two crises underscored the urgent need for systemic change in South African higher education, emphasising the critical importance of addressing power structures, knowledge paradigms, and institutional policies to truly transform the sector. Fostering a deeper understanding of decolonisation within HEIs through workshops, seminars, and dialogues involving faculty, administrators, and students would facilitate critical engagement with existing knowledge paradigms and help identify and dismantle colonial legacies embedded in curricula, research methodologies, and institutional practices. Prioritising curriculum reform to reflect diverse epistemes and knowledge systems, incorporating perspectives from historically marginalised communities and indigenous knowledge, is essential. Comprehensive support and training for educators to enhance digital literacy and pedagogical skills is crucial, along with involving students in decision-making processes related to curriculum development and institutional reform. Long-term strategic planning that prioritises decolonisation as a fundamental principle of institutional transformation, with clear indicators and benchmarks for progress and accountability, is essential.

References

- Abed, S., & Ackers, B. (2021). Social transformation interventions at South African public universities. *International Journal of Sustainability in Higher Education*, 22(4), 870–890. <http://dx.doi.org/10.1108/IJSHE-03-2020-0085>
- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 31(2), 863–875. <https://doi.org/10.1080/10494820.2020.1813180>
- Altbach, P. G. (2016). *Global perspectives on higher education*. Johns Hopkins University Press.
- Badat, S. (2020). Reproduction, transformation and public South African higher education during and beyond COVID-19. *Transformation: Critical Perspectives on Southern Africa*, 104(1), 24–42. <https://doi.org/10.1353/trn.2020.0030>
- Boughey, C., & McKenna, S. (2021). *Understanding higher education: Alternative perspectives*. African Minds.
- Centre for the Study of Violence and Reconciliation. (2017). #Hashtag: An analysis of the #FeesMustFall movement at South African universities. <https://tinyurl.com/yrsectuk>
- Chiramba, O. (2021). Integrating resilience in teaching and learning in South African universities in the COVID-19 era: A scoping review. *African Perspectives of Research in Teaching and Learning*, 5, 112–127. <https://tinyurl.com/ve73ykp4>
- Chiramba, O., & Maringe, F. (2022). Organisational resilience as an urgent strategic goal in post-COVID-19 higher education in South Africa. In E. Mogaji, V. Jain, F. Maringe, & R. E. Hinson (Eds.), *Re-imagining educational futures in developing countries: Lessons from global health crises* (pp. 39–63). Springer.
- Chiramba, O., & Motala, S. (2023). Towards transforming teaching and learning in higher education: Interrogating poverty through a decolonial perspective. *Curriculum Perspectives*, 43, 1–11. <https://doi.org/10.1007/s41297-023-00188-w>
- Cross, M. (2020). *Decolonising universities in South Africa: Backtracking and revisiting the debate, transforming universities in South Africa*. Brill Sense.
- Cross, M., & Govender, L. (2022). Researching students' epistemic access under COVID-19: Epistemological and methodological challenges. *Critical Studies in Teaching and Learning*, 10(1). <http://dx.doi.org/10.14426/cristal.v10i1.456>
- della Porta, D. (2022). *Contentious politics in emergency critical junctures: Progressive social movements during the pandemic*. Cambridge University Press.
- de Sousa Santos, B. (2014). *Epistemologies of the south: Justice against epistemicide*. Paradigm.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
- du Plessis, M., Jansen van Vuuren, C. D., Simons, A., Frantz, J., Roman, N., & Andipatin, M. (2022). South African higher education institutions at the beginning of the COVID-19 pandemic: Sense-making and lessons learnt. *Frontiers in education*, 6, Article 740016. <http://dx.doi.org/10.3389/educ.2021.740016>

- Fataar, A. (2022). Pursuing decolonial knowledge-building in South African higher education. In M. N. Hlatshwayo, H. Adendorff, M. A. L. Blackie, & A. Fataar (Eds.), *Decolonising knowledge and knowers* (pp. 11–26). Routledge.
- Fleras, A. (2022). *A reckoning with racism: Changing the conversation*. Brill.
- Fujita, N. (2020). Transforming online teaching and learning: Towards learning design informed by information science and learning sciences. *Information and Learning Sciences*, 121(7/8), 503–511. <http://dx.doi.org/10.1108/ILS-04-2020-0124>
- Gelles, L. A., Lord, S. M., Hoople, G. D., Chen, D. A., & Mejia, J. A. (2020). Compassionate flexibility and self-discipline: Student adaptation to emergency remote teaching in an integrated engineering energy course during COVID-19. *Education Sciences*, 10(11), 304. <https://doi.org/10.3390/educsci10110304>
- Govender, N., Reddy, P., & Bhagwan, R. (2021). Academic and psychosocial challenges of health sciences students during the COVID-19 pandemic: A university of technology perspective. *Perspectives in Education*, 39(3), 44–61. <https://doi.org/10.18820/2519593X/pie.v39.i3.5>
- Ivanov, D., & Das, A. (2020). Coronavirus (COVID-19/SARS-CoV-2) and supply chain resilience: A research note. *International Journal of Integrated Supply Management*, 13(1), 90–102. <http://dx.doi.org/10.1504/IJISM.2020.107780>
- Jansen, J. D., & Walters, C. A. (2022). *The decolonization of knowledge*. Cambridge University Press.
- Jena, P. K. (2020). Impact of Covid-19 on higher education in India. *International Journal of Advanced Education and Research (IJAER)*, 5(3), 77–81. <http://dx.doi.org/10.31235/osf.io/jg8fr>
- Joseph, D. T. R. (2017, November 21–24). *Decolonising the curriculum, transforming the university: A discursive perspective* [Paper presentation]. Annual conference of Higher Education Learning and Teaching Association of Southern Africa, Durban, South Africa.
- Keet, A. (2014). Epistemic “othering” and the decolonisation of knowledge. *Africa Insight*, 44(1), 23–37. <https://www.ajol.info/index.php/ai/article/view/110048>
- Keet, A. (2021). *Africanising/decolonising ourselves: The implications for advancing critical university studies—Africa (ACUSAfrica)* [Webinar]. The Global (De) Centre Network. https://globaldecentre.org/wp-content/uploads/2021/12/Keet-GDC-Africanising-Decolonising-Ourselves_webinar-2021.pdf
- Mamdani, M. (2016). Between the public intellectual and the scholar: Decolonization and some post-independence initiatives in African higher education. *Inter-Asia Cultural Studies*, 17(1), 68–83. <http://dx.doi.org/10.1080/14649373.2016.1140260>
- Maphalala, M. C., Mkhasibe, R. G., & Mncube, D. W. (2021). Online learning as a catalyst for self-directed learning in universities during the COVID-19 pandemic. *Research in Social Sciences and Technology*, 6(2), 233–248. <https://doi.org/10.46303/ressat.2021.25>
- Maringe, F., & Chiramba, O. (2020). Marketisation in African universities in an era of decolonisation. In E. Mogaji, F. Maringe, & R. E. Hinson (Eds.), *Strategic marketing of higher education in Africa* (pp. 11–25). Routledge.

- Mbembe, A. (2015). *Decolonising knowledge and the question of the archive* [Public lecture]. Wits Institute for Social and Economic Research.
<https://wiser.wits.ac.za/system/files/Achille%20Mbembe%20-%20Decolonizing%20Knowledge%20and%20the%20Question%20of%20the%20Archive.pdf>
- Mhlanga, D., Denhere, V., & Moloi, T. (2022). COVID-19 and the key digital transformation lessons for higher education institutions in South Africa. *Education Sciences*, 12(7), 464.
<https://doi.org/10.3390/educsci12070464>
- Mignolo, W. D. (2011). Epistemic disobedience and the decolonial option: A manifesto. *Transmodernity*, 1(2), 3–23.
https://escholarship.org/content/qt62j3w283/qt62j3w283_noSplash_fe8bd6f9cd627e61aeb2ca1b2e259f8b.pdf?t=m284lt
- Moorhouse, B. L., & Kohnke, L. (2021). Thriving or surviving emergency remote teaching necessitated by COVID-19: University teachers' perspectives. *The Asia-Pacific Education Researcher*, 30, 279–287.
<https://doi.org/10.1007/s40299-021-00567-9>
- Morreira, S. (2017). Steps towards decolonial higher education in Southern Africa? Epistemic disobedience in the humanities. *Journal of Asian and African Studies*, 52(3), 287–301.
<https://doi.org/10.1177/0021909615577499>
- Motala, S. (2020). Critical lessons for South Africa's curriculum transformation in the humanities from Africa and African American studies. In S. Motala & O. Tella (Eds.), *Transforming ivory towers to ebony towers: Lessons for South Africa's curriculum transformation in the humanities from Africa and African American studies* (pp. 399–408). Wits University Press.
- Motala, S., & Menon, K. (2020). In search of the “new normal”: Reflections on teaching and learning during Covid-19 in a South African university. *Southern African Review of Education with Education with Production*, 26(1), 80–99. <https://hdl.handle.net/10520/ejc-sare-v26-n1-a6>
- Mpungose, C. B. (2020). Emergent transition from face-to-face to online learning in a South African university in the context of the Coronavirus pandemic. *Humanities and Social Sciences Communications*, 7(1), 1–9. <https://doi.org/10.1057/s41599-020-00603-x>
- Muswede, T. (2017). Colonial legacies and the decolonisation discourse in post-apartheid South Africa: A reflective analysis of student activism in higher education. *African Journal of Public Affairs*, 9(5), 200–210. <https://hdl.handle.net/10520/EJC-6a114147f>
- Mzangwa, S. T. (2019). The effects of higher education policy on transformation in post-apartheid South Africa. *Cogent Education*, 6(1), 1592737. <http://dx.doi.org/10.1080/2331186X.2019.1592737>
- Oranburg, S. (2020). Distance education in the time of coronavirus: Quick and easy strategies for professors. *Duquesne University School of Law Research Paper*, 2020–02.
<https://dx.doi.org/10.2139/ssrn.3553911>
- Peace, T. A. (2021). COVID-19 pandemic and lockdown: Examining the challenges and opportunities of online teaching of religious education in institutions of higher education in Uganda. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(2), 1–3.
<https://www.researchgate.net/publication/353944704>

- Ratten, V. (2020). Coronavirus (Covid-19) and the entrepreneurship education community. *Journal of Enterprising Communities: People and Places in the Global Economy*, 14(5), 753–764. <https://doi.org/10.1108/JEC-06-2020-0121/full/html>
- Rensburg, I. (2020). *Serving higher purposes: University mergers in post-apartheid South Africa*. African Sun Media.
- Republic of South Africa. (1997). *Higher Education Act (No. 101 of 1997)*. <https://www.gov.za/documents/higher-education-act>
- Rodriguez, C. O. (2009). Affordable wireless connectivity linking poor Latin American communities binding their schools by sharing ICT training for “maestros” of primary schools. In N. Aykin (Ed.), *Internationalization, design and global development: Third International Conference, IDGD 2009, Held as Part of HCI International 2009, San Diego, CA, USA, July 19-24, 2009. Proceedings* (pp. 404–412). Springer.
- Rush, J. V. (2018). The impact of natural disasters on education in Indonesia. *Economics of Disasters and Climate Change*, 2(2), 137–158. <https://doi.org/10.1007/s41885-017-0022-1>
- Stuart, K., & Shay, M. (2019). Countering epistemological exclusion through critical-ethical research to support social justice: Methodological comparisons between Australia and the United Kingdom. In V. Reyes, J. Charteris, A. Nye, & S. Mavropoulou (Eds.), *Educational research in the age of Anthropocene* (pp. 188–210). IGI Global.
- Walton, E. (2018). Decolonising (through) inclusive education? *Educational Research for Social Change*, 7(SPE), 31–45. <https://scielo.org.za/pdf/ersc/v7nspe/04.pdf>
- Williams, P. (2017). *A complex and contested regulatory space: Student protests and government’s financing of higher education in South Africa* [Master’s thesis, University of Oxford]. ORA Oxford University Research Archive. <https://ora.ox.ac.uk/objects/uuid:d71ba91b-0a03-4adc-bbec-352521e0fadb>
- Woldegiorgis, E. T. (2022). The challenges of online learning in African higher education: A critical reflection on the digital divide associated with the COVID-19 pandemic. In E. T. Woldegiorgis & P. Jonck (Eds.), *Higher education in the face of a global pandemic* (pp. 11–27). Brill.

Notes on the authors

Otilia Chiramba is a senior postdoctoral research fellow within the South African Research Chair for Teaching and Learning at the University of Johannesburg.

Shireen Motala is the South African Research Chair for Teaching and Learning at the University of Johannesburg.

Address for correspondence

otiliac@uj.ac.za, smotala@uj.ac.za

Review essay

Aditi Desai

University of Sussex

Deemah Lone

University of Cambridge

Reports by multiple international organisations on education during COVID-19

The COVID-19 pandemic saw a flurry of literature and policy advice commissioned by various international organisations and multilateral agencies. Many of these aimed to assess how education systems in various countries had responded to the challenges posed by the pandemic, and highlighted the strategies and effective practices countries adopted. These reports and recommendations were based on collaborative attempts by the agencies to assess the effects of the COVID-19 pandemic (and the subsequent policy responses) on the education sector in terms of progress towards attaining the Sustainable Development Goal (SDG) targets by 2030. Despite that convergence of focus, each report emphasised a different aspect of the COVID-19 pandemic, and its implications for the education sector.

This essay reviews three such commissioned reports, which examined context-specific strategies in the field of education for navigating the pandemic, and the diverse approaches adopted by various countries. These three reports were selected because they covered countries across the world and focused on contextualised understanding of governmental responses, aiding stakeholders in discerning effective measures amidst the dynamic and multifaceted challenges. Further, the three reports were developed by different multilateral organisations that work at both global and regional levels of governance and cover the key actors (OECD, World Bank, UNICEF, UNESCO, and AU) holding material and ideational influence over global and regional policy discourses and decisions. Moreover, the publications were released at different junctures during the various phases of the COVID-19 pandemic, allowing for analysis of global policy actors' responses over a substantial period of the pandemic, and spanning the period between 2020 and 2022.

As was argued by Sayed et al. (2021, p. 11), crises, including the COVID-19 crisis, “become the vector of, and portal to, particular policy imaginaries that are ideologically driven.” Drawing from that argument, this critical review essay aims to highlight how these reports perceived concepts such as crisis and resilience, and proposed solutions or ways forward. The different strands of discourse surrounding educational crises and recovery efforts, which are often influenced by varying conceptualisations of crisis, are elucidated in this essay. Additionally, the implications of

these discourses in addressing equity and quality imperatives outlined in the SDGs will be assessed.

The essay presents a summary of each report, followed by a short assessment. The summaries include a discussion of the key themes, along with information about the methodology and geographical scope of each report. These are followed by critical reviews of the reports, covering the framing of crises, equity, teachers and teaching, the role of technology, and implications for the SDGs agenda. The essay concludes with our reflections on the global policy discourse on education as represented by the three reports.

How Learning Continued During the COVID-19 Pandemic: Global Lessons From Initiatives to Support Learners and Teachers (Vincent-Lancrin et al., 2022)

Summary

This report, the longest of the three texts (and commissioned by OECD, The International Bank for Reconstruction and Development, and The World Bank), conveys a sense of hope amid the global shutdown caused by the pandemic, highlighting the resilience of education systems in the face of adversity. It documents numerous stories of adaptation and innovation by educators and learners during the unprecedented crisis. It advocates, despite the challenges, for continued learning as a better alternative than waiting out the crisis—which was achieved through the collaborative efforts of individuals and organisations in governments and civil society. The report acknowledges the inherent shortcomings of education systems worldwide, emphasising the urgent need to develop more robust and inclusive infrastructures.

The report is divided into two parts. The first part contains four chapters that provide a general understanding of the COVID-19 pandemic and its implications for education systems, worldwide. In the first chapter, the authors describe the transition to remote learning, highlighting the creativity and quick thinking demanded from teachers, parents, and the state. They emphasise the importance of digital advancement and the reliance on multi-modal technologies to enhance learning. They further discuss challenges such as educational inequity during the pandemic, and the urgent need for robust educational structures, calling on policymakers and practitioners to improve the standard of education through a framework for a global digital education agenda, and innovative pedagogical approaches, to improve education standards.

In Chapter 2, special attention is given to the Global South where the report stresses the importance of multiple channels to bridge the digital divide and enhance both technological and human capabilities. It summarises the initial steps that governments and civil society in the Global South undertook to counter the suspension of face-to-face education during the initial phase of the COVID-19 pandemic. Chapter 3 introduces the case studies (described in full in the second part of the report), the strengths of the educational innovations in various countries, and 10 lessons that can be learned from the education continuation stories. Chapter 4 elaborates on visions for the

future, investigating ways to address current challenges in education systems, and encouraging transition to digital education for effective and holistic learning, as outlined by SDG 4.

The second part of the report (Chapters 5 to 49) provides country-specific case studies, ranging within low, middle, or high-income thresholds. The chapters are classified by intervention type—governmental, non-governmental, and collaborative efforts. Some countries are allocated multiple chapters to aid understanding of the multi-modalities in their approach. Thus, Colombia is assigned five chapters, whereas Nigeria has one, reflecting their different needs and approaches. Each chapter analyses the core problems faced in the initial phase of the pandemic, the initiatives to address them, implementation challenges, evidence of favourable outcomes, and the adaptability of the developed strategies and technologies for future use. In Egypt, the government mobilised its educational resources within four days of the lockdown being imposed. The initial response required quick solutions, and educational resources and technological developments were progressively added to ensure that no student was left out. In Turkey, a mobile app was developed by the government in collaboration with civil society, which catered to students with special needs. Strategies were rolled out in phases according to the degree of urgency and accessibility to educational resources. Finally, each case study concludes with a section, *Adaptability to New Contexts*, suggesting that the strategies and technologies developed during the pandemic can invariably be ameliorated and reproduced to strengthen education systems, making them inclusive and protecting them from similar shocks in the future.

Critical assessment

Reflecting on the strengths and weaknesses of the report, a significant drawback is the general assumption of normalcy in the crisis, and a disregard of the inadequacy of safe environments in homes, which were expected to become learning spaces. This has resulted in misunderstanding the complexities of continued education during the COVID-19 pandemic, which overburdened both students and teachers as they continued to be recipients and providers of care at home. The optimistic nature of the report obfuscates its failure to be cognisant of the myriad challenges confronted by teachers in reaching students who struggled with online learning—especially those with limited technological access or literacy, despite the use of multimodal channels.

A consistent shortfall of the report is its failure to adequately address the emotional and psychological toll of the pandemic on students, particularly those who experienced a personal loss. Although it briefly acknowledges schools as being more than just spaces of learning, it overlooks specific measures taken to support grieving students and address their mental well-being. The absence of detailed insights into how education systems accommodated this lack of space for emotional support raises concern about the comprehensiveness of the report's analysis.

Highlighting narratives of resilience and innovation, the report does recognise that stark systemic inequalities exist within the education ecosystem—which were exacerbated by the pandemic. However, its emphasis on the continuation of learning, albeit with compromised quality, raises questions about equity, access, and insensitivity to differences in access to technology and resources. The report fails to deliver on the extent to which remote learning initiatives effectively

reached all learners, particularly those from marginalised backgrounds. By overlooking this critical issue, it inadvertently downplays the magnitude of the digital divide and its implications for educational equity.

Beyond these criticisms, however, the report vividly identifies the pioneering efforts to initiate distance-learning strategies in which various stakeholders collaborated for continued learning, despite imperfections. The establishment of grassroots networks involving students, teachers, and parents emerges as a crucial step, particularly for nations struggling with educational continuity during the crisis. The emphasis on empowering parents as active participants in their children's learning journey signifies their critical role as proponents of learning despite their technical shortcomings.

The report further highlights the innovative approaches adopted by various countries to address the challenges of remote education. Recognising the imperfections in operationalising unique multi-modalities in distance learning during the initial response to COVID-19, it advocates for the necessity of tailored solutions to the diverse problems faced by different countries. Across various levels of education and in countries of varying income levels, overt challenges to distance learning were actively tackled, with governments playing a crucial role in facilitating these efforts. The comprehensive coverage of general challenges, educational innovations, pandemic lessons, and strategies for long-term enhancement is evidence of the report's depth and contextual relevance.

Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia (UNICEF & UNESCO, 2021)

Summary

This regional situation analysis report is part of an analysis undertaken by UNICEF and UNESCO to provide an overview of the educational responses to, and effects of, the COVID-19 pandemic in Asia. It covers countries in South, Southeast, and East Asia, synthesising findings from the three sub-regional reports and 14 detailed country case studies. Its objectives include assessing and estimating the impacts of the COVID-19 pandemic on the education sector and stakeholders in Asia, examining policy and financial implications on progress towards achievement of SDG 4 targets, and identifying examples of promising strategies in the region. The report has five chapters, followed by a concluding chapter.

Chapter 1 maps experience of the crisis in Asia and the responses to its outbreak. It presents the variations in the spread of the infection among countries in the region, and the range of responses to the pandemic in the region, from harsh lockdowns to softer strategies, are discussed. Chapter 2 examines implications of the responses to the health emergency for school education. It identifies three broad categories of implications for schooling—health and well-being, student learning, and financial consequences. Given the school closures of varying duration due to the COVID-19 pandemic, the report raises concerns about their adverse impact on attaining the SDG 4 targets for learning. The chapter notes uneven access to continued education during school closures,

exacerbation of existing inequities, and halted progress on the learning targets of children from disadvantaged and vulnerable population sections.

The chapter further discusses pre-existing health inequities pertaining to the nature and severity of health and well-being issues, and the lack of adequate and quality WASH facilities, which posed challenges for the safe reopening of schools. School closures also meant a disruption in access to health and well-being services linked to schools. This disruption was uneven across the region, ranging from access to routine immunisations to treatments for mental health disorders, and was aggravated for children with disabilities and those already at risk of a wide range of protection issues.

Next, Chapter 2 discusses the budgetary implications of the COVID-19 health crisis, and provides spend projections for education budgets to be able to meet the learning outcomes of the SDG 4 agenda. A disaggregation of the financial shock by various dimensions is provided—school level, economic classification of expenditure items, activities (like remediation costs, teacher requirement to meet social distancing norms, shift back of students to public schools, re-enrolling dropouts, etc.), and expenditures on new services versus expenditures on extension of existing services. The financial analysis in this chapter focuses on the significant impact of the pandemic on education sector budgets. It estimates that “under the baseline scenario,” the financial impact for the region is a 9.6 per cent increase in budget requirement to meet SDG 4 targets between 2020 and 2030 (p. 53). This is a significant requirement given the expected economic slowdown and the diversion of budgets to the health sector and social protection systems. The report provides a guiding framework for education sector planners to prioritise expenditures to activities that yield the maximum impact towards educational recovery in order to meet SDG 4 targets. It further provides a basis for advocating the protection and extension of education budgets and fast-tracking investments in WASH infrastructure.

Chapter 3 presents key challenges, responses, and the lessons learned. It covers four challenges: the reopening of schools safely, delivery of equitable and inclusive distance learning at scale to all children during school closures, supporting health and well-being of children, and mitigating learning loss and reducing the learning divide when schools reopened. It covers key dimensions of macro-governance policy issues (inter-ministerial coordination, collaboration, access to granular disaggregated data for decision making, design of quick responses, among others), systemic gaps (infrastructural issues, inadequacy of WASH facilities, access to technology), and pedagogic dimensions (curricular and assessment issues, teacher professional support). The findings were drawn from case studies of countries and sub-regions, validated, and discussed with key government and donor actors in the region in two webinars.

Chapter 4 identifies the challenges posed by the pandemic as an opportunity to strengthen public education systems and invest in these by foregrounding the needs of the most marginalised communities. It sees in the crisis a “unique opportunity for change” (p. 71) by strengthening data collection systems and coordination mechanisms, investing in teachers, bringing about curriculum reform, providing alternative learning solutions, improving safety conditions in schools,

establishing blended learning strategies, and building new monitoring and evaluation frameworks.

The report closes with five key recommendations (Chapter 5). These include prioritising school reopening to ensure continued learning in safe environments; delivery of equitable and inclusive distance learning at scale to all children; provision of support packages to ensure children's health, nutrition, and wellbeing; strengthening teaching and teacher support to address low levels of learning and learning gaps; and prioritising education funding.

Critical assessment

This situation analysis provides a comprehensive overview of the situation of school education in Asia during the pandemic. By framing the COVID-19 health emergency as a child rights crisis, the report expands understanding of the crisis to include the language of rights, and places the responsibility on states and stakeholders to address this. However, the local, national, regional, and geopolitical tensions that impacted the experience of the pandemic in the region receive limited attention. Specifically, the reported intensification of extreme nationalistic impulses, divisive political propaganda, tendency towards increasing symbolic violence against marginalised communities, and the rise in geopolitical tensions between countries in the region does not receive adequate attention in the report.

Using an intersectional lens to highlight the multiple disadvantages experienced by different sections of the population, it presents a contextually nuanced picture of the experiences in different sub-regions and countries. Its focus on addressing inequities is visible in its projections of the financial implications of the crisis on education attainment. However, it provides a thin conceptualisation of the pedagogic implications of structural inequities and relevant policy responses. Its understanding of inequities remains restricted to understanding these inequities as existing outside of the school spaces.

The report adopts a cautious approach towards the use of technology, highlighting the uneven access and limited reach, support, and training for its use. However, technology adoption where recommended, is mostly seen as an infrastructural input rather than pedagogic input. Consequently, teachers having a say as pedagogic experts in decisions about modality, content, and the nature of use of technology, remains an unexplored theme. Additionally, the report is silent on an approach to avoid the danger of commercial interests dominating decisions relevant to education technology over pedagogic value and equitable access.

COVID-19 Recovery Framework for Africa (African Union Commission, 2022)

Summary

This report was a collaborative effort between the United Nations Development Programme (UNDP), supported by the European Union and the Government of Sweden. Terming the COVID-19 pandemic an unprecedented challenge for the African continent, the framework was

developed by the African Union Commission (AUC) and various partners to inform the development of comprehensive recovery strategies for the countries in the region. Its objectives encompass assessing the socio-economic impact of COVID-19 in Africa; identification of regional trends to enable collective responses; providing guidance to member states to develop short-, medium-, and long-term strategies; and laying out a “transformational policy agenda” (p. 23) that the AU and its member states can adopt for effectively dealing with current and future systemic challenges.

The framework is intended to serve as a guide for “national and regional recovery efforts” and not to provide a “one-size-fits all blueprint” for recovery strategies and policies (p. 23). Leveraging existing knowledge, this recovery framework builds on principles of cooperation in the African region. It seeks to address the challenges the region faced while addressing the COVID-19 pandemic, and their domino effects on the social, economic, and political systems of the countries. The framework was developed in three phases comprising a scoping and situational assessment, the actual drafting of the framework, and supporting the AUC in endorsing it. The data used are from the period between March 2019 and February 2022, and the report comprises two overall sections comprising six chapters.

The first section (Chapters 1 and 2) sets the background, providing the socio-economic and political context of the African continent prior to the COVID-19 pandemic. It presents a detailed analysis (at both regional and continental levels) of the consequences of the pandemic on health sectors, macroeconomic sectors, the human impact, economic outcomes, and also cross-cutting effects of the pandemic including aspects of social protection, governance and peace building, gender, disaster risk reduction, as well as migration, environmental, and psychosocial effects.

The second part of the report (Chapters 3 to 6) comprises the recovery framework itself: recovery strategies, institutional arrangements, financial mechanisms, and implementation arrangements, respectively, essential to address the identified multidimensional implications of the COVID-19 crisis. Across these chapters, the focus is on understanding the implications of COVID-19 and the strategies important to vulnerable sections of the population—specifically women, girls, persons living with disabilities and those affected by existing health vulnerabilities, refugees, internally displaced populations, and migrants. Further, impact and recovery strategies (including institutional mechanisms, financial strategies, and implementation means) are discussed at continental and regional levels to accommodate the contextual nuances of the historical and socio-economic aspects of the diverse countries and regions. The recovery framework is also structured around the continent’s commitment to meet the SDGs as well as the AUC’s Agenda 2063 aspirations and goals. It provides a comprehensive list of short-, medium-, and long-term government responses and policy recommendations, which are framed within the context of different scenarios, ranging from worst to best case.

Critical assessment

The recovery framework demonstrates a robust comprehension of the nature of the COVID-19 crisis, its implications, and the efforts needed to address it. It displays an acute understanding of

the political dimensions of the COVID-19 pandemic from the perspective of the African continent. It raises aspects of the geopolitical inequities experienced in terms of vaccine coverage and access, and demands of debt servicing that played an important role as the countries prepared for recovery. And it explores the systemic and structural dimensions of inequalities related to the impact of the pandemic and the measures necessary to address them. It provides a macro policy picture to inform recovery efforts. The report also forges linkages between the 17 goals of the SDG agenda and the AUC 2063 agenda, and places education within the context of these larger global and regional goals of sustainable development. However, education only features as a part of the human resource dimension of macro policy perspective and the report falls short in providing detailed recovery plans for education beyond the initial reopening schemes and digital literacy initiatives, inadequately addressing the depth of challenges faced by the education sector. Teachers, the teaching–learning process, and pedagogic implications of the crisis receive scant attention.

Conclusion

During the pandemic, development of knowledge products was an important strategy adopted by multiple international organisations to influence policy and programmatic responses to the pandemic. The three reports reviewed in this essay illustrate that these knowledge products differ in terms of the specific audiences they were designed for, and their understanding and framing of the COVID-19 crisis, depending on each organisation's specific mandate and underlying assumptions about the nature, content, and purposes of schooling.

The three reports emphasise the complexities and varied impacts of the COVID-19 pandemic on educational systems worldwide. Despite their distinct contexts, they share commonalities in identifying critical issues and proposing solutions. A recurring theme across all reports is the recognition of pre-existing systemic inequalities exacerbated by the pandemic. Each report points to the digital divide, with limited access to technology and connectivity hindering remote learning—especially for marginalised and low-income students. This shared concern indicates a need for more equitable technological infrastructure and support systems to ensure inclusive education in future crises.

The AUC's recovery framework stands out for its acute understanding of the political dimensions and systemic inequalities on the African continent, linking education recovery to the broader SDGs. In contrast, UNICEF/UNESCO's situation analysis provides a more localised and intersectional view of inequities in Asia, although it lacks depth in addressing political tensions and pedagogic implications. All three reports emphasise the psychological and emotional toll on students, albeit with varying degrees of focus. The minimal attention to mental health in Vincent-Lancrin et al.'s report on the global situation contrasts with the more comprehensive acknowledgement in the situation analysis and recovery framework reports. This divergence necessitates comprehensive strategies that incorporate mental health support as an integral part of educational recovery plans.

Despite these differences, there are key areas of overlap across the reports. All three primarily

adopt a human capital approach to understanding the crisis, although they emphasise varying aspects of the implications of the COVID-19 pandemic—and their visions for rebuilding tend to privilege addressing the immediate economic shock and preventing its spillover into the near future. As a result, “building back better” becomes translated into narrower visions for remediation, and remain devoid of discussion on addressing historical structural inequity issues in the countries/regions covered. This leads to the three reports focusing on learning outcomes and their measurement, adopting a technicist approach to pedagogy, giving limited importance to the role of teachers in pedagogic decision making, and maintaining silence on the dangers of commercial interests being tied into education technology proposals.

We think these are areas of concern and are in tension with the proposed vision for radically imagining education as a global public good, as in UNESCO Future’s Report (International Commission of the Futures of Education, 2021). Nonetheless, the three reports reviewed here are all important documents that focus on education during the crisis that COVID-19 presented.

References

- African Union Commission. (2022). *COVID-19 recovery framework for Africa*.
https://au.int/sites/default/files/documents/42998-doc-en-covid-19_recovery_framework_for_africa.pdf
- International Commission on the Futures of Education. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO. <https://doi.org/10.54675/ASRB4722>
- Sayed, Y., Cooper, A., & John, V. M. (2021). Crises and disruptions: Educational reflections, (re)imaginings, and (re)vitalization. *Journal of Education*, 84, 9–30.
<http://dx.doi.org/10.17159/2520-9868/i84a01>
- UNICEF & UNESCO. (2021). *Situation analysis on the effects of and responses to COVID-19 on the education sector in Asia*.
<https://www.unicef.org/rosa/reports/situation-analysis-effects-and-responses-covid-19-education-sector-asia>
- Vincent-Lancrin, S., Romani, C. C., & Reimers, F. (Eds.). (2022). *How learning continued during the COVID-19 pandemic: Global lessons from initiatives to support learners and teachers*. OECD.
<https://doi.org/10.1787/bbeca162-en>

Notes on the authors

Aditi Desai is a doctoral student at the School of Education and Social Work, University of Sussex.

Deemah Lone is a research intern at the Faculty of Education, University of Cambridge

Address for correspondence

ad622@sussex.ac.uk

Contents of previous issues of SARE

Volume 19(1)

Articles

The textbook saga and corruption in education: *Linda Chisholm*

Towards 'Discourse 4': Re-orientating research discourse to address a key aspect of South Africa's education crisis: *Laurence Wright*

A historical exploration of physical education at Wesley Teachers' Training School, Cape Town (1915-1966): *Francois Cleophas*

A critical assessment of research on South African further education and training colleges: *Lesley Powell*

Is access inclusion? Exploring understandings of girls' inclusion in a Tanzanian secondary school: *Doria Daniels and Margaret Philip Mwingira*

First-year university student teachers' beliefs about teaching and the teaching profession: The case of Rwanda: *Gabriel Nizeyimana and Ruksana Osman*

Prevalence of the formalistic paradigm in African schools: *Gerard Guthrie*

Six failures of the pedagogic imagination: Bernstein, Beeby and the search for an optimal pedagogy for the poor: *Wayne Hugo and Volker Wedekind*

Starting from pedagogical zero in 'developing' contexts? Let's re-imagine!: A response to Hugo and Wedekind: *Lew Zipin*

The ordering principles and operating principles of pedagogy: A reply to Zipin: *Wayne Hugo and Volker Wedekind*

Volume 19(2)

Articles

Cutting pice and running away: Discipline, education and choice at the UMCA Boys' Industrial House, Zanzibar, 1901-1905: *Morgan Robinson*

The government teacher who resolved to do what he could himself. Wynberg, Cape Colony, 1841-1863: *Helen Ludlow*

'It was a sort of soft war that one waged': Teacher education at the University of Cape Town, 1976-1994: *Charles Dorn*

With a church comes a school: Protestant mission education in Madagascar: *Ellen Vea Rosnes*

From domestic servants to girl Wayfarers at St Agnes', Rosettenville: Phases in the life of a South African mission school, 1909-1935: *Debbie Gaitskell*

The making of white schooling in the Cape Colony in the late nineteenth century: *Crain Soudien*

Book review

Healdtown: Under the Eagle's Wings: The Legacy of an African Mission School: *Mandy Goedhals*

Volume 20(1)

Articles

Working for whose benefit? An analysis of local development NGOs in relation to the communities in Ethiopia: *Yoshiko Tonegawa*

Engaging community members in enhancing educational quality: Studies of the implementation of the Primary School Improvement Programme in Malawi: *Mark Ginsburg, Rudi Klauss, Felix Nankhuni, Luka Nyirongo, Joan Sullivan Omowoyela, Emily Richardson, Reinier Terwindt and Carrie Willimann*

Enhancing the learning environment in Malawian universities: The challenge of neopatrimonialism: *Lester Brian Shawa and Ruksana Osman*

The C Major scale as index of 'back to basics' in South African education: A critique of the curriculum assessment policy statement: *Susan Harrop-Allin and Cynthia Kros*

Shifting discourses and assumptions about teacher learning in South African teacher development policy: *Carol Bertram*

Setting the pace for a new race towards an HIV-free society: Selected HIV and sex discourses of teachers: *M Noor Davids*

Teacher knowledge and employer-driven professional development: A critical analysis of the Gauteng Department of Education programmes: *Francine de Clercq and Yael Shalem*

Volume 20(2)

Articles

Education financing strategies and the neoliberal project in Mozambique: *Adelino Chissale and Michael Cross*

Active participation in Namibia's democratic education system: Challenges for the girl child: *Rachel Ndinela Shanyanana and Michael Cross*

Illuminative evaluation of the Expressive Arts curriculum in Malawi primary schools: *Grames Chirwa and Devika Naidoo*

The role of active parent community school committees in achieving strong relative school performance in Zambian community schools: *Zachariah J Falconer-Stout, Kalisto Kalimaposo and Eunifridah Simuyaba*

Parental involvement and access to learning: A perspective from Gauteng and the Eastern Cape, South Africa: *Shireen Motala and Viwe Luxomo*

Some theoretical considerations of 'engaged scholarship' and 'use-oriented research' at a new university in

South Africa: The Vaal University of Technology: *Bernadette Johnson and David Cooper*

Book review

Selling Out Education: National Qualifications Frameworks and the Neglect of Knowledge: *Linda Chisholm*

Volume 21(1)

Articles

On the cosmology of cumulative progressive hallucination: *Gerard Guthrie*

Of false-starts, blind spots, cul-de-sacs and legitimacy struggles: The curriculum debate in South African higher education: *Crain Soudien*

Education, science and mental difference in South Africa: *Azeem Badroodien*

Formative elements in the making of a young radical teacher in an ethos of resistance to educational and broader social marginalisation in early twentieth-century Cape Town: *Yunus Omar*

Comparing history textbooks in apartheid South Africa and the German Democratic Republic, 1950–1990: *Linda Chisholm*

Experiences of parents with children diagnosed with reading difficulties: *Lorna M Dreyer*

Volume 21(2)

Articles

Using agency-space and aspiration-scape to interpret grassroots perspectives on secondary education in South Africa: *David Balwanze*

The organisation of schools that succeed against the odds: *Ursula Hoadley and Jaamia Galant*

Towards a ‘self-schooled’ habitus: High school students’ educational navigations in an impoverished rural West Coast township: *Jerome Joorst*

Making place: High school girls’ place-making practices and identifications in the light of the ‘expressive culture’ of their independent school in peri-urban Cape Town: *Elzahn Rinquest*

Chasing curricular justice: How complex ethical vexations of redistributing cultural capital bring dialectics to the door of aporia: *Lew Zipin*

Moosa’s aporia: A critical interrogation of the text What is a Madrasa?: *Aslam Fataar*

Can Foucault liberate madrasa knowledge from commodification practices?: A critical engagement with Ebrahim Moosa’s concept of madrasa knowledge: *M Noor Davids*

What is a Madrasa? Unveiling narratives from the margins: *Hasina Banu Ebrahim*

Book reviews

University Access and Success. Capabilities, Diversity and Social Justice: *Alejandra Boni*

Engaging Schooling Subjectivities across Post-Apartheid Urban Spaces: *Jyothi Chabilall*

Volume 22**Articles**

Creating sustainable teacher education ecologies: A people's education for people's power reimagined: *Sechaba Mahlomaholo*

Performativity and authenticity in higher education: From reductionist to ecological thinking: *Petronella van Niekerk*

Theorising student constructions of quality education in a South African university: *Kehdinga George Fomunyan*

Harnessing contextuality: A sustainable ecological model for distance learning in a complex world: *Louise Schmidt*

The evolution of resources provision in basic education in South Africa: A projectile with diminishing returns: *Jonas Seabata Kabi*

Journeying into the past: Lesotho sexuality education curriculum history: *Mathabo Khau*

Resilience in the continuum of support, juxtaposing inclusive education and special education systems: *Ruth Mampane*

Periodisation of mathematics teacher knowledge for teaching: A construction of bricolage: *Moeketsi Simon Mosia*

Book review

Gender, Experience, and Knowledge in Adult Learning: Alisoun's Daughters: *Judy Harris*

Volume 23**Articles**

From teachers to teaching: Locating teachers in pedagogy in the post-apartheid South African education and training system: *Nazir Carrim*

Learner poor performance: Provoking Bourdieu's key concepts in analysing school education in South Africa: *Labby Ramrathan*

The dilemmas of cooperative governance in the Department of Basic Education in South Africa: *John Shebabese Maluleke, Chika MT Sehoole and Everard Weber*

Ideology and the good society in South Africa: The education policies of the Democratic Alliance: *Yusuf Sayed and Robert van Niekerk*

Resegregation and recreation of racism in education in a post-apartheid setting: *Isaac Ntshoe*

Role of the practicum in teacher preparation for multilingual classrooms in Tanzania: *Anjum Halai and Peter Kajoro*

Alternative pathways to universal basic education: Through the lens of Almajiri nomadic schooling in northern Nigeria: *Victor Nnadozie and Michael Anthony Samuel*

Volume 24

Articles

HIV-AIDS, decolonisation and the South African curriculum: Explorations on the edges of curriculum learning: *Crain Soudien*

Troubling 'race' as a category of explanation in social science research and analysis: *Salim Vally and Enver Motala*

Challenges facing life orientation educators in the delivery of sexuality education in South African schools: *Gavin George, Leigh Adams Tucker, Saadhna Panday and Faith Khumalo*

Teacher views of the implementation of the HIV/AIDS curriculum in Zimbabwean primary schools: *Starlin Musingarabwi and Sylvan Blignaut*

Decolonising history of education in South African teacher education: *Linda Chisholm, Michelle Friedman and Queenta Anyele Sindoh*

Commemorating the 50th anniversary of forced removals: Contested District Six discourses: *M Noor Davids*

Reframing the quality education discourse via a capability analysis of Quintile 1 (poor) school communities: *Paul Nwati Munje and Rouaan Maarma*

Volume 25(1)

Articles

Professional judgment in and for complex social and educational contexts: *Elizabeth Walton, Douglas Andrews and Ruksana Osman*

Pushed out! The perils of teacher professionalism in dysfunctional South African teaching contexts: *Thabo Msibi*

Complexities of professional practice in South African education: *Nazir Carrim*

Identities in transition: Professional identity construction by student teachers in England and South Africa at the end of their university-based training: *Viv Wilson and Mirna Nel*

Preservice student views of teacher judgement and practice in the age of artificial intelligence: *Jacqueline Batchelor and Nadine Petersen*

Developing standards for inclusive teaching in South Africa: A dilemma analysis: *Elizabeth Walton and Lee Rusznyak*

Inclusive education as a localised project in complex contexts: A South African case study: *Petra Engelbrecht and Nithi Muthukrishna*

Governance in psycho-pedagogic practices for equity and inclusive education: *Therese Mungah Shalo Tchombe*

Contributions of social workers' professional judgements within a multidisciplinary team in mental health care: *Emily Walton and Edmarie Pretorius*

Volume 25(2)

Articles

Challenges of decolonisation in higher education: *Fazal Rizvi*

Academic conversation: From the shadows to the university's epistemic centre – engaging the (mis)recognition struggles of students at the post-apartheid university: *Aslam Fataar*

Large-scale improvement interventions in the education system: PILO's contribution to the theory of change in education: *Francine de Clercq and Yael Shalem*

Transforming the conversation: The essential role of teachers in ensuring quality education for all : *Carol Anne Spreen, Jill Knapczyk and Alexandria Meier*

The schoolboy cluster as a complex learning ecology: An agentic social space for socially marginalised youth: *Doria Daniels and Lynne Damons*

A paradox of defined relationships between the spheres of government in South Africa: *John Shebabese Maluleke*

Sexuality education beyond the life orientation class: Teacher perceptions across the curriculum: *John Chaka, Christa Beyers and Eben Swanepoel*

Future directions of economics education for teachers in South Africa: A review of current trends: *Carina America and Lara Skelly*

A complex heritage: A survey of the histories of historically black universities in South Africa: *Bronwyn Strydom*

Volume 26

Articles

Systemic shock: How Covid-19 exposes our learning challenges in education: *Crain Soudien*

Evidence and education policy making in South Africa during Covid-19: Promises, researchers and policymakers in an age of unpredictability: *Yusuf Sayed and Marcina Singh*

Education, Covid-19 and care: Social inequality and social relations of value in South Africa and the United States: *Sara Black, Carol Anne Spreen and Salim Vally*

Educating for work in the time of Covid-19: Moving beyond simplistic ideas of supply and demand: *Stephanie Allais and Carmel Marock*

In search of the 'new normal': Reflections on teaching and learning during Covid-19 in a South African university: *Shireen Motala and Kirti Menon*

Corona, crisis and curriculum: History of health education in South Africa: *Linda Chisholm*

Every child is a national (playing) asset: A portrait of a Soweto boy's contradictory worlds of play and performance before and during the Covid-19 lockdown: *Shafika Isaacs*

Reimagining parents' educational involvement during the Covid-19 lockdown: *Doria Daniels*

School lessons from the Covid-19 lockdown: *Nick Taylor*

Data or bread? A policy analysis of student experiences of learning under lockdown: *Jonathan Jansen*

Volume 27

Articles

Business as usual to business unusual: Challenges experienced by first-year intermediate- phase students at an Eastern Cape university due to the transition from face-to-face contact to online learning: *Christina Jordaan*

What happened to us, and why does it matter? South African student social workers' reflections on how the Covid-19 pandemic affected them: *Marichen van der Westhuizen, Fairoza Brey and Candice Warner*

Strengthening online teaching and learning by closing the feedback loop: *Herkulaas Combrink and Lauren Oosthuizen*

Teaching and learning innovations during the pandemic: Reflections on online teaching and learning in the context of Covid-19: *Asheena Singh-Pillay and Jayaluxmi Naidoo*

Entablado: Slips, impression management and performance mastery in online teaching: *Louie Benedict Ignacio, Ellen Joy Pacudan and Mary Janet Arnado*

Motivation and online learning in the time of Covid-19: *Catherine F. Botha*

Fluidity of teacher education and school practice during Uganda's political management of Covid-19: *Dennis Zami Atibuni, Muhamadi Kaweesi and David Kani Olema*

The hill we climb: In search of a new pedagogy: *Shireen Motala and Kirti Menon*

Volume 28**Articles**

De-idealising the problem of academic freedom and academic autonomy: Exploring alternative readings for scholarship of South African higher education: *Dina Zoe Belluigi*

In search of the holy grail: Social justice and funding in higher education in South Africa: *Shireen Motala and Kirti Menon*

Rethinking the university: Notes for an epochal critique: *Lis Lange*

Re-imagining the university after apartheid: *Premesh Lalu*

The redistributed university: *Sarah Nuttall*

Transformation dynamics in South African universities: Emergent trends: *Crain Soudien*

“Emergencies” and techno-rationality: The tasks of decentred critical university studies: *André Keet, Luan Staphorst, Michaela Penkler, and Nobubele Phuza*

Rationalising learning analytics in higher education: Insights from the South African academy: *Marcina Singh*

A Musical Offering to the recomposed university: *Willemien Froneman and Stephanus Muller*

Book review

The Educational Pathways and Experiences of Black Students at Stellenbosch University by Aslam Fataar (Ed.): *Lauren Davids*

Guidelines to contributors

Peer review process

- All manuscripts are blind reviewed by three external reviewers.
- All manuscripts must follow the Author Guidelines for publication in SARE as set out on the website ([Author Guidelines](#)).
- All must be edited and conform to a high quality of composition and rigour, including language, APA style, and grammar.
- A letter from a professional proofreader must be submitted along with the manuscript.
- A separate document containing author details must accompany submitted work to facilitate the blind review. The reviewers only receive the manuscript and not the author page.

Journal focus

SARE welcomes manuscripts that are highly readable and captivating, providing critical insight and discussion of education in the Southern Africa region from a variety of disciplinary perspectives.

Given that SARE covers the Southern Africa region with a keen focus on comparative education, education policy, and sociology and history of education, there are a few criteria that should be met if authors seek to publish their work in the journal. The following are guidelines we provide to all reviewers of the submitted manuscripts:

- Does the article have a regional or South African context dimension?
- Does the article have a comparative or historical dimension? Although this is not compulsory, it is preferred.
- Does the article have a global comparative dimension in the area of comparative, and history of, education? Again, not compulsory but preferred.
- Is the submission original and its contribution novel for the SARE audience/readership?
- Is the manuscript thorough, focused in its orientation, and of high quality deserving publication?

It should be noted that:

- SARE does not encourage submission of solely descriptive manuscripts or uncritical policy recommendations. The preferred focus is focused critique and academic argument grounded in comparative, historical, sociological, or education policy analysis.
- A greater focus on argument and intellectual discussion is preferred over methodology and interpretation of findings.
- Further information is provided on the website under Focus and Recent Restructuring.

Questions authors should ask themselves before submitting:

Is the submission of a quality suitable for submission? Key questions in this regard include:

- Does your paper have distinctive merits? Not necessary, but would privilege selection of the paper.
 - o Does the paper shed light in insightful ways on aspects of comparative education, sociology or history of education, or other debates that have not received sufficient attention in the literature?
 - o Does the paper present any new empirical data that shed light on such debates?
- What are your paper's conceptual and theoretical contributions?
 - o Does the paper present a conceptual framework that allows for plausible conclusions to be drawn?
 - o What are the key arguments and tangents in the paper? Are there clear threads that hold these together and fit with the main narrative?
 - o Did you adequately consult the broader body of literature and use it to ground your arguments and provide support thereto?
- Are the arguments clear and focused throughout?
 - o Is the abstract sharp enough and does it convey the thrust of the paper?
 - o Is there a clear research question being analysed?
- Are your insights presented in ways that make them new, original, or interesting?
- Does the article include all the various dimensions of a quality article, namely, a good introduction, a strong argument, clear threads linking the arguments, and a conclusion that leads the reader to new ways of thinking about the highlighted issues?
- Does the article sufficiently cite the research and articles of other scholars?
- Do the style and format of the article conform to SARE's Author Guidelines?
- Is the language consistent and of high quality? Is the article readable for international audiences?
- If your arguments are based on empirical data, are these sufficiently described and applied in a critical and thoughtful way? Is the generation of data reliable, appropriate, and sufficient? Are the data well presented and interpreted (with consideration of alternative interpretations) and adequately discussed with reference to the relevant issues?
- Does the article provide different insights or interesting contributions to existing debates?
- Technical points include:
 - o Is the manuscript between 5,000 and 7,000 words? In exceptional cases, maximum 7,500 words (inclusive of tables, illustrations, references, etc.).
 - o Is an abstract of about 200–300 words provided, with 4–6 keywords?
 - o Does the article follow the APA 7 referencing style?
 - o Manuscript must be typed on A4 in Microsoft Word format.
 - o Text must be in Arial font, 12 point, with 1.5 line spacing. Margins must be 2.54cm.

- o Figures must be clear black and white originals. Do not use colour or grey shading.
- o Tables and figures must be numbered consecutively with a descriptive heading.
- o Use decimal points (and not decimal commas) in all text and tables.
- o Manuscript should contain little to no self-referencing by the author(s).

A key point

Have you submitted your article for the required plagiarism test? And does it contain any material that may be libelous, plagiarised, or an infringement of copyright? Please record this in your submission note.

Recommendations

Once reviewed, please follow one of the following recommendations:

- Accept: the manuscript is accepted as is.
- Declined: the manuscript is not suitable for the journal, nor is it of a quality in its current form that it can easily be reconceptualised or rewritten.
- Revisions Required: The article is accepted on condition that minor revisions are made according to all the recommendations provided by reviewers.
- Resubmit for Review: The article cannot be accepted in its current form because major revisions are needed. In this case, the resubmitted article will either be returned (once revised) to the original reviewer, or subjected to a completely new review.

Editors

Acting Editor-in-Chief is Charl C. Wolhuter (NWU), assisted by an editorial collective comprising of:

Linda Chisholm (University of Johannesburg)

Louw de Beer (North-West University)

Aslam Fataar (Stellenbosch University)

Peter Kallaway (University of Western Cape)

Mark Mason (The Education University of Hong Kong)

Yunus Omar (Centre for International Teacher Education)

Crain Soudien (Human Sciences Research Council)

Procedure for manuscripts accepted for publication

- SARE has no institutional location, and is managed by email. Manuscripts can be submitted for consideration to sare@saches.co.za.
- Article Processing Fees (APC) is R3,500 per published article. Authors will be invoiced on acceptance of the article.

Author guidelines

Author Guidelines Southern African Review of Education (SARE) is the journal of the Southern African Comparative and History of Education Society (SACHES). It was previously published together with Education with Production (EWP), the journal of the Foundation for Education with Production. SARE will appear at least once a year. Contributors are welcome to submit articles on educational issues with specific reference to educational policy, comparative education, sociology of education, history of education, and education with production. Beginning with Volume 5 in 1999, articles submitted will be anonymously refereed. Articles are accepted on the understanding that they have not been published or submitted for publication elsewhere. Articles or review essays should be between 5,000 and 7,000 words (inclusive of references) and may include maps, figures, and tables. Reports on research, book reviews, and critical comments should be limited to 2,000 words. Contributions should be submitted electronically. All pages should be numbered. Authors should not use programs like EndNotes to generate lists of references automatically because these do not transfer for typesetting purposes. The manuscript should be submitted bearing the title of the paper and an abstract of 200–300 words together with 4–6 keywords on a separate page. Maps, figures, tables, and illustrations should be supplied on separate pages and not included as part of the text. Their approximate position in the text should be indicated. Maps, figures, and illustrations should also be provided as separate electronic files (jpg) with a resolution of at least 300 dpi. The title of the contribution and the names and addresses of authors should be provided on a separate page. The address of the author who will handle correspondence should be clearly indicated. Telephone and email addresses for the authors should be submitted as well. Authors should supply brief biographical material for the “Notes on the author.” In a covering letter, the authors must state that the contribution has not been published, is not being published or considered for publication elsewhere, and will not be submitted for publication unless rejected by the editorial board of SARE or withdrawn by the authors.

Notes

Footnotes are not allowed. References. Please make very sure that your reference list includes only works that are cited in the text and that all works cited in the text appear in the reference list. Please check too, that all in text citations and reference listings comply fully with APA 7. You will find APA 7 referencing guidelines (for in text and reference list) here:

<https://apastyle.apa.org/style-grammar-guidelines/references/examples>

Please also ensure you comply with the APA guidelines with respect to doi numbers/urls here:

<https://apastyle.apa.org/style-grammar-guidelines/references/doi-urls>

Papers that are accepted become the copyright of SARE unless otherwise specifically agreed. Neither the editors nor the publishers accept responsibility for opinions expressed or for the accuracy of the data presented. Authors will receive a copy of the journal in which their article is published.

Calls for papers

Special Edition: Call for papers SARE Volume 29 Number 2

SARE call for papers on Comparative and International Education in Southern Africa

Guest editors

Charl Wolhuter

Call for papers

The *Southern Africa Review of Education* seeks original empirically grounded or theoretical manuscripts on the theme, *Comparative and International Education in Southern Africa*

A statement of the problem

Since the founding of the Southern African Comparative and History of Education Society (SACHES) 33 years ago, in 1991, and the founding of its journal the *Southern African Review of Education* almost thirty years ago, momentous changes have taken place in the scholarly field of Comparative and International Education, in education in the Southern African region and beyond, and at universities in the Southern African region, where the field has its institutionalised home. Even the year 2006, when the journal last had a Special Issue which focused on SACHES and on Comparative and International Education (Volume 12, number 2), already seems to be in the distant past.

It is within this scheme of things that a critical stocktaking of the state of the field in the Southern African region, by scholars in the field, would be a valuable exercise. Therefore, manuscripts for this Special Issue are invited. The following would be very welcome:

- Manuscripts dealing with developments in the scholarly field of Comparative and International Education and the relevance thereof for Comparative and International Education within the Southern African region
- Manuscripts dealing with developments in and challenges facing education in the Southern African region and also beyond, and the relevance thereof for Comparative and International Education
- Manuscripts dealing with case studies on Comparative and International Education as field of scholarship at universities in the Southern African region
- Manuscripts focusing on developments in the higher education sector in the Southern African region and beyond, and the relevance thereof for Comparative and International Education
- Without excluding anyone, we especially encourage contributions from scholars in the Global South, Africa in particular, and those who are underrepresented in the journal. This includes contributions from scholars working in conflict contexts in Africa or from countries and contexts underrepresented in the journal, especially from North Africa.

For enquiries and submission of manuscripts, please write to Professor C.C. Wolhuter: Charl.Wolhuter@nwu.ac.za

Journal description

The Southern African Review of Education (SARE), incorporating Education with Production (EWP), is a peer-reviewed journal serving as a forum for critical discussions of education in the Southern African region from various disciplinary perspectives, for the dissemination of contemporary research, and for reflections on education. It has a broad, cross-disciplinary audience of scholars, researchers, and practitioners in the field of education. (<https://www.saches.co.za/sarejournal/>)

Please consult our Guidelines for Contributors for further important information. (<https://www.saches.co.za/guidelinesforcontributors/>)

Please also ensure that your citations and reference listings match and comply fully with APA7 style as explained in our Author Guidelines. (https://www.saches.co.za/sitepad-data/uploads/2023/05/Author-Guidelines_SABINET.pdf)

Timeline

Deadline for full paper submissions	30 September 2024
Articles returned from peer-reviewers	31 October 2024
Authors to submit final paper with changes	15 December 2024
Anticipated publication date	December 2024

Special Edition: Call for papers SARE Volume 30 Number 1

SARE call for papers on History of Education in Southern Africa

Guest editors

Charl Wolhuter

Call for papers

The *Southern Africa Review of Education* seeks original empirically grounded or theoretical manuscripts on the theme, *History of Education in Southern Africa*

A statement of the problem

Since the founding of the Southern African Comparative and History of Education Society (SACHES) 33 years ago, in 1991, and the founding of its journal the *Southern African Review of Education* almost thirty years ago, momentous changes have taken place in the scholarly field of History of Education. Even the year 2006, when the journal last had a Special Issue which focused on SACHES and on Comparative and International Education (Volume 12, number 2), already seems to be in the distant past.

It is within this scheme of things that a critical stocktaking of the state of the field of History of Education in the Southern African region, by scholars in the field, would be a valuable exercise. Therefore, manuscripts for this Special Issue are invited. The following would be very welcome:

- Manuscripts dealing with developments in the scholarly field of History of Education internationally and the relevance thereof for History of Education as scholarly field in the Southern African region and
- Manuscripts dealing with developments and present state of History of Education in initial teacher education programmes and in post-graduate Education programmes and as a field of research at universities in the Southern African region
- Without excluding anyone contributions from scholars in the Global South, Africa in particular, and those who are underrepresented in the journal would be especially welcome. countries and contexts underrepresented in the journal, especially from North Africa.

For enquiries and submission of manuscripts, please write to Professor C.C. Wolhuter: Charl.Wolhuter@nwu.ac.za

Journal description

The Southern African Review of Education (SARE), incorporating Education with Production (EWP), is a peer-reviewed journal serving as a forum for critical discussions of education in the Southern African region from various disciplinary perspectives, for the dissemination of contemporary research, and for reflections on education. It has a broad, cross-disciplinary audience of scholars, researchers, and practitioners in the field of education. (<https://www.saches.co.za/sarejournal/>)

Please consult our Guidelines for Contributors for further important information. (<https://www.saches.co.za/guidelinesforcontributors/>)

Please also ensure that your citations and reference listings match, and comply fully with APA7 style as explained in our Author Guidelines. (https://www.saches.co.za/sitepad-data/uploads/2023/05/Author-Guidelines_SABINET.pdf)

Timeline

Deadline for full paper submissions	28 February 2025
Articles returned from peer-reviewers	31 March 2025
Authors to submit final paper with changes	1 April 2025
Anticipated publication date	1 June 2025

Special Edition: Call for papers SARE Volume 30 Number 2

SARE call for papers on History of Education in Southern Africa

Guest editors

Charl Wolhuter

Call for papers

The *Southern Africa Review of Education* seeks original empirically grounded or theoretical manuscripts on the theme, *Rural Education*

A statement of the problem

Since the founding of the Southern African Comparative and History of Education Society (SACHES) 33 years ago, in 1991, and the founding of its journal in the Southern African Review of Education almost thirty years ago, equal education opportunities have been front centre. While the trinity of inequality, that is socio-economic descent (class), gender and race/ethnicity have received much attention, one other dimension of inequality, namely rural-urban inequality has been neglected. While the education system of China is customarily in Comparative Education take as the textbook example of urban-rural inequality in education, urban-rural disparities in education is universal. In the Southern African region too urban-rural inequalities in education, as well as the contextual ecologies of rural areas and the implications thereof for education, have not come to its right in the Comparative Education research agenda. Therefore, manuscripts for this Special Issue are invited. While manuscripts focusing on Southern Africa would be very welcome, so would manuscripts be dealing with theoretical-conceptual issues, as well as manuscripts focusing on rural-urban disparities in other parts of the world, especially Africa and other parts of the Global South.

For enquiries and submission of manuscripts, please write to Professor C.C. Wolhuter: Charl.Wolhuter@nwu.ac.za

Journal description

The Southern African Review of Education (SARE), incorporating Education with Production (EWP), is a peer-reviewed journal serving as a forum for critical discussions of education in the Southern African region from various disciplinary perspectives, for the dissemination of contemporary research, and for reflections on education. It has a broad, cross-disciplinary audience of scholars, researchers, and practitioners in the field of education. (<https://www.saches.co.za/sarejournal/>)

Please consult our Guidelines for Contributors for further important information. (<https://www.saches.co.za/guidelinesforcontributors/>)

Please also ensure that your citations and reference listings match and comply fully with APA7 style as explained in our Author Guidelines. (https://www.saches.co.za/sitepad-data/uploads/2023/05/Author-Guidelines_SABINET.pdf)

Timeline

Deadline for full paper submissions	31 August 2025
Articles returned from peer-reviewers	30 September 2025
Authors to submit final paper with changes	31 October 2025
Anticipated publication date	December 2025

SACHES Membership Form

SACHES**Southern African Comparative and History of Education Society**

Jo-Anne Koch

E-mail: joanne.adams@saches.co.za

Tel: +27 84 929 0170

PO Box 13455

HATFIELD

0028

SACHES MEMBERSHIP

Surname		Title	
First Name		Initials	
Institution			
E-mail address			
Postal Address			
Postal Code		Country	

Description	Membership fee
SACHES Membership 2024/2025	African Countries – R 600 Elsewhere – R 650

Banking Details

Bank: ABSA
 Account Name: SACHES
 Account Number: 2352-7847
 Account Type: Active Save
 Branch: Claremont
 Branch Code: 632005
 Swift code: ABSA za jj (for members abroad)
Use name as reference

PAYMENTS

Payments should be made by EFT into the above account. Please send completed form and proof of payment to the SACHES Treasurer, Jo-Anne Koch at joanne.adams@saches.co.za.

Contents

EDITORIAL NOTES

Researching, teaching and learning during times of crises: Experiences of the Global South

Rekha Pappu, Yusuf Sayed, Shireen Motala & Padma Sarangapani 5

ARTICLES

Education in the eye of the storm: A bibliometric review of research on global crises and their impact on Southern African education (2000–2024)

Emmanuel Ojo..... 15

Crises and education policymaking for social justice: Choices, constraints and commitments

Yusuf Sayed 41

The pandemic and the platformisation of education

Gurumurthy Kasinathan..... 62

Higher education during COVID-19 crisis: Situation, presence, and place

Padma M. Sarangapani..... 84

Education policymaking during the COVID-19 pandemic in India and South Africa: Implications for equity and quality

Rekha Pappu and Yusuf Sayed..... 100

South–South collaboration during the COVID-19 pandemic: The case of CL4STEM

Tanushree Rawat and Payal Aggarwal..... 116

Researching in the time of COVID-19: Doctoral student experiences from South Africa and India

Ekta Singla, Halima Namakula and Emaya Kannamma 133

Deliberating on student protests and the COVID-19 pandemic disruptions: The South African higher education case

Otilia Chiramba and Shireen Motala..... 152

REVIEW ESSAY

Aditi Desai and Deemah Lone

Reports by multiple international organisations on education during COVID-19..... 166