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VIEWPOINTS/ CONTROVERSIES

Complexities of difference and their significance for managing inequality in learning: Lessons from the COVID-19 crisis

Crain Soudien[1]

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Abstract The purpose of this Viewpoint is to argue for an enlarged understanding and approach to the question of inequality and education. While much of the current discussion is correctly focused on learners' material realities and how COVID-19 is exacerbating those inequalities, largely overlooked is how the core activity of the education experience—learning—is managed, simultaneously, at the macro-level of the state, and the micro-levels of the individual learner. We now know how complex learning is. Our new knowledge is informed by new understandings of the relationship between the biomedical and the social. It is suggested that what is necessary in this crisis and going into the future, is deconstructing and making sense of the complexities of these realities for the quality of the learning experience.

Keywords Inequality · Learning · Quality · Crisis · Pandemic · Learning sciences · Future of education

The purpose of this brief intervention is to propose a restatement and a repositioning of the question of inequality in education as it is playing itself out in the context of the global upheavals caused by COVID-19. Much of the current discussion of inequality is correctly focused on learners' material realities and how the pandemic exacerbates those inequalities. What is largely overlooked, and this is understandable given the enormity of the task facing governments of holding the basics of their educational systems intact and functional, is how the core activity of the education experience—learning—is managed, simultaneously, at the macro-level of the state, and the micro-levels of the individual learner. I suggest that what is necessary in this crisis and going into the future, is deconstructing and making sense of the complexities of these realities for the quality of the learning experience (and, it needs to be said, the teaching experience).

✉ Crain Soudien
csoudien@hsrc.ac.za

[1] Human Sciences Research Council, 134 Pretorius Street, Pretoria 0002, South Africa

Much has been learnt in the last twenty years about how human beings actually learn. Preceding this learning are long-standing debates which feature, on the one hand, behaviourists who believe that learning happens as a response to external stimuli, and, on the other, cognitivists and constructivists who believe that human beings mentally process and work with the stimuli to which they are exposed in entirely distinct and individual ways (Skinner 1938; Piaget 1963; Suppes 1977; Vygotsky 1978; Bates 2014). New understandings of the relationship of the individual brain to the social context in which an individual finds him/herself/themselves have fundamentally weakened the polarized and dichotomized nature of that old debate. This new knowledge, I suggest here, brings an urgency to the educational discussion of inequality. It by no means takes away the material significance of disadvantages such as poverty but it calls, in addressing it, for far greater sophistication in the management of inequality. The circumstances of COVID-19 have accelerated this urgency. Every day, since about February 2020, when the first of the global lockdowns began in Wuhan, China and into the perhaps not-so-foreseeable future, teachers, parents, caregivers, and children themselves have been working out how to manage the processes of learning. In deep experiential ways, the question of learning has become more than a question of theory and opinion. People have had to think about how to do it efficaciously and meaningfully.

COVID-19's reach

The world has never before experienced anything like COVID-19. We have experienced pandemics before: The devastation of the Spanish Flu of 1918, which caused the deaths of approximately 50 million people, is an example. The world, however, has not previously had to respond in conditions of hyper-connectedness. It took several months for the Spanish Flu to work its way around the world. Globalization, and in this particular case of COVID-19, where air-travel is the medium, has dramatically compressed, to use Held, McGrew, Goldblatt, and Perraton's (1999, p.15) famous phrase, "time-space". In a matter of weeks from December 2019, immense controls and safeguards notwithstanding, the world went from reports of clusters of cases in Wuhan to 5,710,836 infections and 352,869 deaths globally by 27 May 2020 (Worldometer 2020). On 11 March 2020, the World Health Organization (WHO), based on incidences which had ballooned to 118,000 cases in over 110 countries around the world, declared COVID-19 a pandemic. The Director-General of WHO, Tedros Adhanom Ghebreyesus, explained that what the world was dealing with was "… not just a public health crisis. It is a crisis that will touch every sector" (Ducharme 2020, para 2).

A sector which, predictably, has been affected disastrously is education. Writing for the World Bank, Jaime Saavedra (2020, para 1), explained: "As of March 28, 2020, the COVID-19 pandemic is causing more than 1.6 billion children and youth to be out of school in 161 countries. This is close to 80% of the world's enrolled students". UNESCO's (2020) estimates of the number affected by 27 May 2020 were somewhat lower but still alarming—1,190, 287, 189. One hundred and fifty countries had closed their systems. Collating the numbers accurately is difficult. The picture, the point cannot be escaped, however it is constructed, is dire. Well over two-thirds of the world's children have been affected. In most countries schools have been shut down for several weeks. At the time of writing, schools have been shut for 61 days in South Africa.

Saavedra (2020) explains the effects of school systems shutting down: "We were already experiencing a global learning crisis, as many students were in school, but were not learning the fundamental skills needed for life". The World Bank's Learning Poverty indicator—the percent of children who cannot read and understand at age 10—stood at 53% of children in low- and middle-income countries, before the outbreak started. "This pandemic has the potential to worsen these outcomes even more if we do not act fast" (Saavedra 2020, para 1).

Colleagues and I, writing in *The Conversation*, painted a picture of these worsening outcomes for a relatively well-organized system such as South Africa's. Extrapolating from the data we collected for the 2015 Third International Mathematics and Science Study (TIMSS) for South Africa, where we applied "the learning curve scenario methodology developed by the World Bank to the South African context to illustrate the patterns of expected learning losses over the next few months due to school closures and disruptions" (Reddy, Soudien, and Winnaar 2020, para 9). Our estimates were that learning losses amongst poor children would lead to catastrophic results. We said: "More learners from no-fee schools will fall below the 'learning poor' score of 300" (Reddy et al. 2020, para 11).

Responses to COVID-19

In response to these developments, systems, schools and educational authorities have moved quickly. A rapid-response survey conducted by Reimers and Schleicher (2020, p. 10) of 98 countries around the world found that school systems were teaching online using a variety of platforms, broadcasting lessons on television and radio and putting in place innovations such as socially distancing proof hubs and centres. Working with this information, Reimers and Schleicher developed a guide for how systems could respond. What is clear is that everywhere in the world both at system-wide levels and right down to households, interventions are underway to sustain and support learning.

In the South African setting, the Department of Basic Education (2020) announced at the start of the national lockdown proclaimed by the government that:

> In accordance with the pronouncement by the President on 15 March 2020, schools will be closed from 18 March and will reopen on 14 April 2020. This decision has been informed by the warnings provided by the National Institute of Communicable Diseases and World Health Organization who have highlighted the alarming increase of infections within the country over a three-day period…Provincial Education Departments, districts and schools are advised to take advantage of this time and are encouraged to utilise the time effectively by ensuring that learners participate in established stimulating programmes such as the Read to Lead programme, maths buddies, constructive holiday assignments, etc., through the supervision and guidance of parents and the broader community whilst learners are at home. This will be supported through the provisioning of workbooks, worksheets, readers, etc.

Innovative examples shared by participant countries to the Reimers and Schleicher (2020, p. 13) survey include separate portals for teachers, learners, and parents in Israel, virtual meeting places in Italy, and many other initiatives. In countries such as the Netherlands and Portugal, governments have made grants available for poor parents to obtain the devices they need for accessing online services. In schools everywhere, teachers are developing innovations

using a wide range of supplementary pedagogies. In the higher education sector in South Africa, the Ministry of Higher Education and Science and Technology has developed a global positioning system intervention which is in the process of locating almost every single registered student in the system and every public education site—universities, colleges, libraries, post-offices and museums. Mapping the former on the latter, for the purposes of facilitating access of students to their most conveniently located connectivity resources, it has offered universities and colleges a mechanism for dealing with the questions of learning opportunity.

Cost of COVID-19

The Reimers and Schleicher (2020) study and a briefing by the International Labour Organization (ILO) (2020) provide, also, a sense of what the costs of the pandemic are and particularly what is *not* being done in many parts of the world. Reimers and Schleicher report (2020, p. 11), and clearly more detail is required, that "(w)hen asked what has the government or network of schools done to support the ongoing academic instruction of students, a large percentage indicate 'nothing'". The possibility exists, and it is suggested by informal and unofficial reports of the large numbers of children playing in the streets during what would have been school time in the cities of South Africa, that little or no learning is happening in large parts of the world. The ILO gives a sense of the damage that is being felt:

> While solutions to the disruption have been innovative and responsive, the reality remains that some schools and regions are better positioned than others to take advantage of resources, technological infrastructure and the technology market to respond to the crisis in more effective and comprehensive ways. The emphasis on virtual learning can exacerbate existing inequalities in education, particularly in developing contexts, marginalized communities and rural settings, where access to technology and reliable internet connections may be limited. Even within schools, inequalities such as those related to persons with disabilities or family income can hinder access to distance learning. Distance learning does not allow schools and teachers to carry out their important role in the socialization of learners and in the provision of social services, such as, for example, school meal programmes. (ILO 2020, p. 1)

Kingwell (2020), writing from the perspective of a privileged university in North America, emphasizes the point: "Among other things, the massive and sudden shift in teaching at all levels exposes social and economic faultiness that predate the current pandemic" (para 1). The problem which is being focused on in these analyses is access to technology. The ILO, representing this line of critique, points out that: "…In many countries in South-West Asia and sub-Saharan Africa, only about 20 percent of households have internet connectivity, and few have personal computers" (ILO 2020, p. 5). "… What we need to avoid—or minimize as much as possible", says Kingwell (2020, para 3), "is for those differences in opportunities to expand and cause the crisis to have an even larger negative effect on poor children's learning".

Towards a larger view of inequality

As I have said above, the symptoms highlighted by current literature on COVID-19 quite correctly focus on the situation of the demographically poor in the world and to improving their online access. I would like to argue, however, that the pandemic presents the world

with a clear picture of the inherent blind spots of mass education and the complications associated with the principle of universal education upon which it is constructed. It is this to which I now turn.

The argument I make in this contribution is that our defining blind spot emanates from our homogenization of the learning subject and his/her/their identity. Even as the world's educational policy makers have shifted towards learning theories such as cognitivism and constructivism, they have tended to use a homogenized learner as their subject for analyses. Where they have brought inequality into their analyses, they have done so on the basis of a normativizing middle-class sensibility—what poor learners *ought* to have access to. Poor and disadvantaged learners are constructed in these framings not only in deficit terms in relation to middle-class norms and standards but their material realities are compressed into stereotyped identities framed by singular, fixed and essentialized understandings of race, class, gender, ethnic background, language, sexual origin, ability, religion, and many other forms of difference.

The point I am seeking to make here is that the learning subject in his/her/their intersectional complexities is not visible in the developments that are in play in the new context of the pandemic. I concede, as I have said above, there are understandable reasons for the directions that governments and systems are taking to deal with the crisis. The logistical challenge of managing learner and student progression in the world's educational systems is a planning nightmare. But the complexity of what is actually taking place in the process is not being considered at all.

What is that complexity? It is that the construction of a homogenized learner, either in his/her/their identity(ies) of privilege or disadvantage, misrecognizes the actual politics of the learning experience and, so, the individual learner.

That politics would need to proceed from the premise, as Nikolas Rose (2019, p. 194) says of the challenges of working in the cognate space of psychiatry, that young people inhabit a world in which they are learning, an ecology which is enormously messy, imbricated, overlapping and continuous and discontinuous in both material and psychological ways that matter. This world includes "homes, shops, buildings, roads, countryside—intersubjective—communities of support or exclusion, discrimination, racisms, exposure to actual or potential dangers and hazards from others—social—forms of work, experiences… saturated with public and private meanings" (Rose 2019, p. 194). But it is about more than their external environments. It is also, fundamentally, about their biological distinctiveness. It is about, beyond the physicality of their material worlds, living in bodies with brains, which are, in every single instance, completely different. These differences of the body and the brain and particularly the material differences of "male" brains, "female" brains, "autistic" brains, "artistic" brains, "scientific" brains, "left-hemisphere dominant" brains, and much more, in a plurality of different kinds of bodies, are the subject of intense debate. Jantz (2014, para 2), for example makes the claim that "the differences between male and female brains in these areas show up all over the world, but scientists also have discovered exceptions to every so-called gender rule".

The gender discussion, as one facet of the body and brain discussion, is particularly controversial with significant theorists such as Mikkola (2019, para 49) arguing that "various critiques of the sex/gender distinction have called into question the viability of the category women". However, one wishes to resolve these questions of bodies and the brains they contain, we have to proceed from an acknowledgement that our scientific understanding of what is happening in the brain is a young and largely exploratory field. Writing recently on their attempts to image the circuitry of the brain, Wang et al. (2009) make the point that "…most previous large-scale circuit studies assumed that local circuit properties are the

same across brain regions. Since different brain regions have distinct microscale and macroscale properties, assuming identical parameters across brain regions is overly simplistic". Brains work differently. Rose, Meyer, Strangman, and Rappolt (2002, para 1) emphasize that "in recent years, scientists have made unprecedented progress toward unlocking the secrets of how our brains learn, driven in part by remarkable new technologies and techniques for imaging the brain's activity". They emphasize that "although all brains share… general characteristic, individual brains differ substantially—a point that bears critical implications for teaching. Understanding the specialized functions of the recognition, strategic, and affective networks can help us appreciate the unique strengths and weaknesses of individual students".

It is in coming to terms with the idea of every child's "unique strengths and weaknesses" that the idea of the sociologically and psychologically normative learner presents to us an important challenge. We have, beyond our deeply important sociological characterizations of the children in our classrooms, children who are bearers of immense complexities. Rose et al. (2002) describe these as "strengths and weaknesses". I would prefer to use a less judgemental frame and say, perhaps no less problematically, "differences".

In working with this challenge of difference, obvious victims are learners with disabilities. An email message distributed by Pamela Joy Lumagabas, from inside a consultancy called *Cardinal Learning* of California, says of the COVID-19 situation for learners in the American context that "(s)tudents with learning disabilities are being abandoned by the education system. Their normal cadre of specialists that have helped them in the past are no longer able to tend to their needs". The question of learners with disabilities is acknowledged in the ILO (2020) and Reimers and Schleicher (2020) analyses.

But the issue is more complex. It rests on the question of recognition. Who is being recognized in describing the crisis? I suggest that what we are seeing in the crisis are predictable casualties and, critically, human subjects that receive no recognition.

It is important to attempt an unpacking of who the human beings are within our midst who do not easily come to our minds. They are numerous. They begin, of course, with the normalized, but no less therefore worthy of our attention, marginalized layers of people of colour, women, people with delegitimized sexual preferences, poor people, linguistic marginal, differently abled and so on. There are, however, amongst us many less obvious mis- and unrecognized subjects. Rose et al. (2002) are immensely insightful for making the point that even so-called 'disability' is susceptible to misrecognition. They explain that "(n)ew understanding about the distributed nature of neural processing shows that abilities in many domains fall along a very large number of continua. Further, the importance of a particular strength or weakness depends on what is being asked of the learner. This is why, for example, a youngster with perfect pitch who has difficulty recognizing letters is seen as disabled, but a child who is tone deaf but can read words is easily not" (Rose et al. 2002, para 29).

Much less obvious are learners from all kinds of contexts, whether they are, in the taken-for-granted sub-categories of the dominant ways in which we have come to classify our human landscape, rich-poor, black-white and male-female, who, and this is the issue for understanding inequality, actually, all, learn differently. They learn mathematics in distinct ways. They learn languages in different and very individualized ways. We have, in our failure to recognize the different needs and requirements of learners, subtle and yet deeply injurious inequalities. They are no less damaging than the grand factors of race, class and gender. When a child struggles to process in his/her/their executive functioning how the logic of a sentence can be ordered, or how a calculation comes to produce a very specific outcome, or how a symbol might precipitate a particular association, a facilitating teacher

needs to understand that a norm-structured model of how that child should learn constitutes a potential injustice.

And so, when the guidelines for helping schools and systems deal with the COVID-19 crisis specify what needs to be done, and again, all the caveats I put on the table earlier continue to be pertinent, the overwhelming narratives are about "salvaging the year" and "completing the curriculum". Built into this narrative is misrecognition of the task that a modern, equality-conscious and difference-conscious society has before it. That task is recognizing the wonder of the extraordinary complexity each child presents to us. If we don't, we make the error of privileging gross versus subtle but no less insidious inequalities within our midst.

Innovating to mitigate inequality

As the digital imperative looms large in our lives, and as we come to acknowledge the inescapable reality that our teaching and learning strategies must embrace these new online affordances available to us (still differentially), taking us towards what commentators such as Olivier (2020, p. 17) describe as "customised blended learning", we have to remain mindful of what our new learning about learning is telling us. Assimilating that learning in structured and comprehensive ways is clearly the next task to be focused on in the formal spaces of teacher professional education and in the less formal socialization cultures of families and communities around the world. In some ways, and this awaits documentation, ahead of that next step, COVID-19 has brought teachers, parents and caregivers to the need for new approaches to learning. Reimers and Schleicher (2020, p. 12) share the testimony of Hungarian respondents to their survey: "Teaching has been shifted to the digital. The government tries to give support for this to schools/teachers but most of the initiatives seem to be bottom-up. *One witnesses a remarkable dynamism and activity in many schools* [my emphasis]".

It is important that we are able to record and make sense of this dynamism. Anecdotal reports from many quarters speak of teachers, parents and caregivers working harder than they ever have in their lives. These reports also speak of practical and pedagogical insights to which people are coming. These insights are beyond the digital. Within them are emerging practices which respond to practical anxieties—such as "salvaging" the school year. But there is also a sense of defending and cultivating the virtues of learning.

The big and perhaps too difficult a prize to present is that of individualized learning. Our new politics of learning tells us clearly that every child will learn differently. Structuring learning programmes for each individual is clearly beyond our reach. In practice, personalized learning is not within our resource, technical, social or scientific capability. It will not, therefore, in any likelihood happen. But we have to understand that it is an important social issue, as yet inadequately articulated, for our discussion going forwards—a matter of cognitive justice. Rose et al. (2002, para 27) helpfully point to a way forward:

> Because smooth functioning recognition networks take advantage of both top-down and bottom-up processes (of learning), teaching to *both processes* (their emphasis) rather than focusing exclusively on one or the other is the wisest choice. A positive example is the recent truce in the "phonics wars". Most programs have now adopted a form of reading instruction that incorporates both the top-down whole language method and bottom-up phonics. The balanced approach is consistent with the way the learning brain works.

References

Bates, T. (2014). Learning theories and online learning. *Online Learning and Distance Education Resources*. https://www.tonybates.ca/2014/07/29/learning-theories-and-online-learning/.

Department of Basic Education, South Africa (2020). *Containment/management of COVID-19 for schools and school communities*. https://www.education.gov.za/covid19.aspx.

Ducharme, J. (2020). World Health Organization declares COVID-19 a "pandemic". Here's what that means. *Time*. https://time.com/579166/who-declares-coronavirtus-pandemic-declaration/.

Held, D., McGrew, A., Goldblatt, D., & Perraton, J. (1999). *Global transformations: Politics, economics and culture*. Cambridge: Polity Publishers.

ILO [International Labour Organization] (2020). *COVID-19 and the education sector*. ILO sectoral brief. https://www.ilo.org/wcmsp5/groups/public/—ed_dialogue/—sector/documents/briefingnote/wcms_742025.pdf.

Jantz, G. (2014). Brain differences between genders: Do you ever wonder why men and women think so differently? *Psychology Today,* February 2014. https://www.psychologytoday.com/intl/blog/hope-relationships/201402/brain-differences-between-genders.

Kingwell, M. (2020). Let's admit it—online education is a pale shadow of the real thing. *Globe and Mail*. https://www.theglobeandmail.com/opinion/article-lets-admit-it-online-education-is-a-pale-shadow-of-the-real-thing/.

Mikkola, M. (2019). Feminist perspectives on sex and gender. In E. Zalta (Ed.), *Stanford Encyclopedia of Philosophy*. https://plato.standford.edu/entries/feminism-gender/.

Olivier, W. (2020). Needed: Customised blended learning. *The Cape Times,* Thursday, May 28.

Piaget, J. (1963). *The origins of intelligence in children*. New York, NY: Norton.

Reddy, V., Soudien, C., & Winnaar, L. (2020). The impact of school closures on education outcomes in South Africa. *The Conversation*. https://theconversation.com/impact-of-school-closures-on-education-outcomes-in-south-africa-136889.

Reimers, F. M., & Schleicher, A. (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020*. Paris: OECD. https://www.hm.ee/sites/default/files/framework_guide_v1_002_harward.pdf.

Rose, D. H., Meyer, A., Strangman, N., & Rappolt, G. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

Rose, N. (2019). *Our psychiatric future*. Cambridge: Polity Press.

Saavedra, J. (2020). Educational challenges and opportunities of the coronavirus (COVID-19) pandemic. *Education for global development: A blog about the power of investing in people*. https://blogs.worldbank.org/education/educational-challenges-and-opportunities-covid-19-pandemic.

Skinner, B. (1938). *Behavior of organisms*. Cambridge: Skinner Foundation.

Suppes, P. (1977). A survey of contemporary learning theories. In R. Butts & J. Hintikka (Eds.), *Foundational problems in the special sciences.* The University of Western Ontario Series in Philosophy of Science (Vol. 10, pp. 217–239). Dordrecht: Springer.

UNESCO (2020). COVID response website. https://en.unesco.org/covid19/educationresponse.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.

Wang, P., Kong, R., Kong, X., Liegeois, R., Orban, C., Deco, G., et al. (2009). Inversion of a large-scale circuit model reveals a cortical hierarchy in the dynamic resting human brain. *Science Advances, 5*(1), eaat7854. https://doi.org/10.1126/sciadv.aat7854.

Worldometer (2020). COVID-19 coronavirus pandemic. Last updated May 27, 2020, 12:19 GMT. https://www.worldometers.info/coronavirus/.

Crain Soudien is the CEO of the Human Sciences Research Council (HSRC) and a Deputy Vice-Chancellor at the University of Cape Town. He is a joint professor in Education and African Studies at the same university. He has published over 210 articles, reviews, reports, and book chapters in the areas of social diference, culture, education policy, comparative education, educational change, public history and popular culture. He is the author of three books, *Youth Identity in Contemporary South Africa: Race, Culture and*

Schooling, *Realising the Dream: Unlearning the Logic of Race in the South African School*, and *The Cape Radicals,* the co-author (with Yusuf Sayed, Ramya Subrahmanian, and Nazir Carrim) of *Education Exclusion and Inclusion: Policy and Implementation in South Africa and India,* and the editor of six other books, including *Nelson Mandela: Comparative Perspectives of his Significance for Education.*