BUILDING EVIDENCE IN EDUCATION

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Implications of COVID-19 for Educational Research:

Strengthening Research Capacity and Partnerships for Mutual Learning

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Thematic Synthesis Paper

Building Evidence in Education (BE^2) Meeting

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This thematic synthesis paper on *Implications of COVID-19 for Educational Research: Strengthening research capacity and partnerships for mutual learning* draws on discussions on this topic during the annual meeting of the Building Evidence in Education (BE^2) working group, hosted online by UNESCO on 5-7 October 2020.

It was prepared by the Future of Learning and Innovation team at UNESCO as a contribution to the global debate on the future of educational research. It is not intended to be a report of the BE^2 Meeting.

Introduction

Global educational disruption resulting from the COVID-19 pandemic has both highlighted pre-existing imbalances and inequalities in education, and created opportunities to reimagine education – and educational research.

The crisis has intensified the search for 'evidence' to inform effective policies and strategies. It has deepened awareness of the importance of research, data and knowledge production – whether focused on education response or recovery – locally, nationally and internationally. Indeed, there are significant knowledge gaps about the health, economic, social and educational implications of COVID-19 and what could be effective policy responses.

In this altered context, strengthening research capacity, partnerships and networks, new methodologies and methods, and mutual learning, are more crucial than ever. Yet, cherished assumptions about educational research and knowledge production are also being challenged.

The inequalities and social divisions exposed by the COVID-19 crisis illuminate the stark reality that decades of 'research capacity building' have been met with limited success in addressing persisting imbalances in research and knowledge production, and in education itself, around the world. Although research is expected to inform 'evidence-based policy and practice', there are often wide gaps between researchers and the researched, and between the producers and users of research. The crisis creates a moment of opportunity to rethink research, and to reflect on how research and knowledge production for education can be strengthened for the future.

Within the overall topic, this paper addresses three main themes.

First, the impact of COVID-19 crisis on the nature of evidence, research priorities, and research methods. The education disruption caused by COVID-19 has not only further highlighted the need for evidence for effective policy responses, but is also changing research priorities and understandings of data and evidence, research methods, partnerships and networks. How are these understandings evolving? How are research priorities changing? What are the implications for research methods and the nature of knowledge production?

Second, the potential of research partnerships and networks for mutual learning for the co-creation of inclusive, holistic and equitable knowledge. What are the main opportunities and challenges and what are the new kinds of research partnerships and networks needed in order to address the impacts of the COVID-19 crisis in education? Just as important, what are some of the examples of partnerships and networks that we can learn from?

Third, the implications of these changing concepts, and more equitable partnerships and networks, for efforts to strengthen research and evaluation capacity for mutual learning are discussed. How might efforts to strengthen research capacity create resilient foundations for more equity-centred and evidence-informed policies in education? What can be done to improve evidence uptake? And, what might be some effective strategies to support and sustain knowledge production and utilization?

By reflecting on these three inter-related themes and their associated concerns and challenges, the paper identifies some actions that could be taken. At the heart of each theme are ethical judgments that will shape future research processes, socially responsible, sustainable and equitable research partnerships and networks, and research capacities.

Successful research strategies are likely to become consciously inclusive, socially and culturally diverse, inter-disciplinary and inter-professional, and able to foster communication, collaboration, ownership and mutual learning. Whilst compelled by the COVID-19 crisis, current efforts to rethink research and evidence, and to strengthen research capacity, need to not only address education response and recovery, but also to maintain longer-term perspectives on education, research and knowledge for the public good.

1. The impact of COVID-19 crisis on the nature of evidence, research priorities, and research methods

Even before COVID-19, the world was facing an acute education and learning crisis, requiring wide-ranging data, research and evidence. The COVID-19 crisis and related education disruption, including the large-scale global experiment in distance learning, has created new demands for reliable knowledge. For example, what can be learnt remotely and what role for blended learning? Education systems need to understand new patterns of inclusion and exclusion, such as access, effective engagement and participation in distance learning by more disadvantaged groups, including girls and women, in the crisis context. What could be done to prevent early school leaving and to bring drop outs back to school? Beyond education, there are also wider impacts to consider, for example on health and nutrition, on early marriage and on child labour.

The need for accessible and rigorous evidence and data – locally, nationally and internationally – is ever greater in the time of COVID-19, but at the same time, the challenges of data collection and analysis are magnified.

With researchers staying at home, many large-scale surveys and research projects, whether quantitative or qualitative, were put on hold or even came to a halt completely. Cross-national studies were seriously affected. Social distancing measures and travel restrictions limited the ability of researchers to continue their work, in particular where connectivity is most constrained. Few researchers are able to conduct fieldwork safely and, by operating at a distance, it is difficult to adequately interpret qualitative or quantitative data, impoverishing the research methods and established processes of meaning-making. Whilst digital solutions have been mobilized to generate and analyze data, capacities to make sense of these data are severely compromised during the pandemic.

There are multiple risks emerging from such an unprecedented situation. First, the growing knowledge gap caused by the COVID-19 disruptions is hampering researchers' responses to the pre-existing learning crisis, especially concerning issues of assessing learning outcomes from an equity perspective. Second, the nature of research and evidence for education is changing profoundly. Indeed, the usual subjects and contexts for study, namely schools or other education institutions are now often closed or remodeled due to school closures or restrictive sanitary barriers within classrooms and buildings.

New ethical dilemmas and tensions for education researchers, such as privacy and data protection, have emerged from the use of digital technologies and tools, and these need further investigation. For instance, the risks of misuse and privacy breaches increase in the absence of clear frameworks for data privacy and protection among researchers. Furthermore, the use of ICTs is currently transforming the speed, accuracy and nature of educational research, with both positive and negative consequences in the long term.

The lack of access to connectivity across various research communities and networks potentially further marginalizes disadvantaged researchers and their institutions from conducting research. Despite evidence that the crisis is exacerbating social inequalities and the 'digital divide', individuals without access to the internet or mobile technologies are less able to be research respondents or participants.

Remote data collection and analysis may not always be a possibility and this may hamper the collection and analysis of certain types of evidence and data, especially in local environments. Thus, in the months to come, '*it will be crucial to reevaluate whether evidence, data and methods have continued to*

take on new meaning due to the rise in new digital solutions and remote data collection, and if an extended use of these new evidence, data and methods of research are still necessary'[1].

The global scope of the current crisis has, to some extent, exposed the politics and power asymmetries of knowledge production processes. This is because the pandemic requires a global perspective, international scientific cooperation, and comparative research in education and other fields. Yet, an analysis of widely used concepts of data, evidence, and research capacity has revealed some persisting imbalances between countries that are primarily producers and others who are primarily users of educational research.

Persistent exclusion of marginalized voices from dominant research methods potentially hampers the co-creation of the knowledge needed for effective global and local solutions to the crisis. Here, the COVID-19 pandemic could be a catalyst to challenge the epistemological assumptions behind the dominant concepts of data, evidence, methodologies and research. At the same time, the crisis could be an opportunity to create collaborative frameworks for knowledge production and knowledge sharing, based on equity and inclusion, and mutual interest, to address historical imbalances and inequalities in education and research.

In addition to the demands of social justice movements, including the recent Black Lives Matter movement[2], the global crisis creates an opportunity to interrogate *'racist and colonial assumptions and frameworks'*[3] on which the traditional concepts of evidence, data and research methods are based. Here, for instance, knowledge producers could examine the problematic historical practices and epistemic injustices that have shaped many current research practices and methods. This would imply going beyond what we understand as objective and rigorous research methods and evidence, and welcoming research that is '*developed through rich textual analysis or that centers around language and communications'*[4]. This transformative process may have significant implications for the design, support and evaluation of efforts towards strengthening research capacity worldwide.

The diversification of knowledge and perspectives within research processes could potentially contribute towards the reimagination of education and its roles in recovery. While mutual learning and knowledge exchange are needed, researchers should acknowledge the difficulties in reaching a common understanding about the new meanings of evidence, data and research methods in the context of COVID-19. A first step is to consider underlying assumptions about research. Those assumptions '*frame what we think is worthy of study, where we should study, with whom and for whom, for what purpose, and guide our decisions on knowledge production and application (…).Those assumptions can be dangerous because they may be incomplete or uncritical or colonial and mute certain voices.*'[5]

The pandemic, therefore, creates an opportunity to broaden and diversify the assumptions behind what counts as 'research' and the role of a 'researcher', and to consider who decides. Attention towards making research processes more inclusive reveals that narrowly defined understandings of 'research' and 'researchers' could be problematic, especially if dominated by definitions created by historically elite institutions. Within this transformative process, the creation of broader new meanings may help to reshape educational research priorities, strategies and methods, with implications for the development of effective partnerships and networks, and for mutual learning.

1 Pablo Cevallos Estarellas, Head, IIEP-UNESCO Office for Latin America.

2 Joel Samoff, Adjunct Professor, African Studies, Stanford University, United States of America.

3 Malak Zaalouk, Professor of Practice and Director, Middle East Institute for Higher Education, American University in Cairo, Egypt.

4 Joel Samoff, Adjunct Professor, African Studies, Stanford University, United States of America.

5 Prachi Srivastava, Associate Professor, University of Western Ontario, Canada.

Examples of generating new evidence, data and research methods

The **IIEP-UNESCO Office for Latin America,** conducts yearly multi-country case studies in a dedicated region and typically works in south-south cooperation with other partners. Drawing from experience, the Head of Office notes that the use of digital technologies for fieldwork has caused '*some de facto exclusion factors that impact on who and what can be researched. (..). This is a serious problem of discrimination because how could we understand what's going on with the marginalized rural community - in Ecuador - when there is no access to them via internet?*'

Pablo Cevallos Estarellas, Head, IIEP-UNESCO Office for Latin America, Buenos Aires, Argentina

The Middle East Institute for Higher Education has engaged with teachers and educational leaders as researchers. The initiative yielded some excellent results for school-based reform and for knowing which directions to implement and what support teachers needed. Just as important, this example demonstrates how researchers can '*work in a lot more multi-disciplinary, collaborative, and very importantly decentralized ways. And even more important, it is an example which demystifies research so that people and communities are empowered to do research and to be the subjects of research*'.

Malak Zaalouk, Professor of Practice and Director, Middle East Institute for Higher Education, American University in Cairo, Egypt

UNICEF Office of Research - Innocenti presented the 'Data must Speak' research project with particular reference to the Positive Deviance Methodology. It is an innovative research methodology that has not been applied very often in education. It is used to investigate what makes certain schools operate in the same context, and with the same level of resources better than other schools. By analyzing behaviors and practices that are in those schools, it follows both a learning by doing and '*no one-size-fits-all*' approach. It is an example of how new and inclusive methodologies can be created and adapted during times of the COVID-19 global pandemic.

Matt Brossard, Chief of Education, UNICEF Office of Research – Innocenti, Florence, Italy

2. Emerging research partnerships and networks

Research partnerships and networks have the potential to support the inclusive and equitable co-creation of knowledge. Yet, the COVID-19 crisis has challenged our ability to foster collaborative research partnerships and international networks for mutual learning. They will have to adapt to the current global context and the multi-dimensional nature of the crisis.

Producers of knowledge cannot successfully adapt to the changing nature of partnerships without first *'learning and redefining how networks and partnerships really work'*[6]. One component of this functioning is, above all, the element of trust. In fact, trusted relationships are essential to the successful continuation of relevant and strategic educational research partnerships and networks. Yet, developing trust takes a long time and patient funding, something that appears to be in contradiction with the pace at which the COVID-19 crisis, and its associated technological revolution, are driving transformations in education and research.

The necessity for international collaboration in research and science has never been greater, and the current pandemic has propelled knowledge sharing and collaboration across national borders,

6 Moira Faul, Executive Director, NORRAG - Panel 2: Emerging research partnerships and networks.

especially but not only in the medical and health sciences. Yet, for effective and sustainable North-South collaboration, it should be taken into account that partnerships and networks are not operating in '*a historical vacuum*'[7]. There are significant power relations in play, and partners should make those historical and geographical legacies '*audible and visible*'[8].

At times, partners from rich countries have benefitted disproportionately from North-South research partnerships, in which for example the Northern partners set research agendas, extract and process data, and benefit most from research publications. Developing new models of more equal and socially just research partnerships requires a deeper understanding of decolonizing research methodologies. This will also require knowledge of how to decolonize institutional spaces and power structures in higher education, other research institutions, research partnerships and research networks. New models will require partners to transform the one-way flow of knowledge and expertise on education, into genuine 'win-win' collaborative partnerships characterized by trust, equality, and mutual learning.

Here a broadening of the concepts of research partnerships and networks, like the concepts research and evidence, could support a decolonial shift in educational research and knowledge production. Such processes would require the creation and inclusion of new terms and definitions emerging from, for instance, the following steps; *'making local community members effective researchers'; 'supporting data collection on the ground' and 'investing in the next generation of university students and researchers in local communities'*[9].

Emerging digital solutions, mobilized by the impact of the COVID-19 pandemic in educational research, could also potentially aid in creating more trusting and equal relationships between researchers, community organizations and education service providers. However, digital technologies might also perpetuate imbalances and inequalities, particularly if partners from the Global South have not been involved in defining problems and designing solutions and do not have adequate digital skills. Too often, partners in the Global South are primarily consumers rather than producers of powerful – and often expensive – digital infrastructure, devices, data processing software, and other knowledge tools. These factors may explain why, for instance, 'the adoption of open data policies does not automatically lead to data sharing and mutual learning'.[10]. Consequently, there should be a willingness among partners to collaboratively work towards strategic solutions, especially on the design of research programmes and the integration of digital technologies in research processes.

In these challenging times, there is also much to learn from partners from around the world about progress made, past difficulties overcome, and various ingredients for success. As previously mentioned, the questioning of enduring colonial legacies in education, research and knowledge production, has come to the forefront. The crisis has also revealed some key questions relevant to negotiating the basis on which authentic co-ownership of data, joint efforts, engagement and collaboration works for all partners involved.

Among lessons that can be learnt from efforts to develop genuine partnerships, characterised by openness, trust, equality, mutual respect and complementarity are the following:

First, cross-cultural differences in norms, values, beliefs and actions may influence the effective development of research partnerships and networks. Too often, one partner has had to fit into the culture, language, and ways of working of the dominant, more powerful partner. Sustainable cooperation among partners depends on respect for cultural differences and the recognition of the power asymmetries and politics involved. Addressing the complexities involved in cross-cultural partnerships is integral to co-creating equitable and sustainable partnerships.

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7 Ibid.

8 Ibid.

9 Joost de Laat, Professor of Economics at Utrecht University, and Director for the Utrecht University Centre for Global Challenges - Panel 2: Emerging research partnerships and networks.

10 Lucy Heady, CEO, Education Sub Saharan Africa (ESSA).

Although research partnerships will differ, the elaboration of the 'rules' or terms and conditions for a partnership arrangement should itself be a collaborative process, where the objectives are developed and decided upon together. The following sets of questions are relevant: *Who sets the framework of the partnership? What are the objectives? Who gets the credit for the achievements of the partnership? and How will the success of the partnership be evaluated in the long-term?*

Despite the challenges, communication and openness to mutual learning can foster successful research partnerships and networks. Indeed, space allowing in-depth reflections and exchanges on the historical, political, cultural and economic differences and experiences may facilitate fruitful cooperation, especially where the nature of contemporary partnerships might still be influenced by the past. Strong awareness of the cultural sensitivities, colonial histories, and geopolitical realities between partners could be a success factor for more equitable and sustainable partnerships and networks.

The impact of the COVID-19 crisis is a reminder that the nature of partnerships and networks need to evolve further in the near future. As such, success may depend on their ability to foster flexible and innovative models of research methods and processes that integrate the best of internal and external knowledge and expertise.

Examples of partnerships and networks in educational research

The **Network for Impact Evaluation Researchers Africa** and **UTAH University Center for Global Challenges** are engaged in joint efforts and collaborative work. These focus on the future generation of impact evaluation researchers, namely university students across East Africa. The latter have benefitted from impact evaluation and research methods training course as well as opportunities to participate in research internships at the University of California, Berkeley, United States of America. This is one way to strengthen research capacity; by building the capacities of the new generation of researchers, and; creating future equitable networks and partnerships between northern and southern researchers. However, these capacity-building efforts need to question their underpinnings in order to be truly beneficial to all partners involved.

Joost de Laat, Professor of Economics at Utrecht University, and Director for the Utrecht University Centre for Global Challenges and Amos Njuguna, Professor of Finance, and Dean of Graduate Studies, Research and Extension at the United States International University - Africa (USIU)

The online **African Education Research Database (AERD)** aims to raise the visibility of African research, consolidate the evidence base for policy and practice, and inform future research priorities and partnerships. It has been developed by the **Research for Equitable Access and Learning (REAL)** Centre at the University of Cambridge, in partnership with **Education Sub-Saharan Africa (ESSA)**, and funded by the **Jacobs Foundation.** This initiative illustrates the power of opening up data at a time where data are harder to collect. However much more effort is needed not just on '*accessing data but also on increasing capacities to both analyze and use data*'.

Lucy Heady, CEO, Education Sub Saharan Africa (ESSA)

NORRAG is a network for international policies and cooperation in education and training based in Geneva. A network of almost 5000 members nearly half of them from the Global South. The focus of the network is to contribute to evidence-based decision making around equity and quality education through research publications, policy dialogue and capacity building. Here, the importance of questioning the power inherent in the network has been a key component to its success. In addition, key questions around data and research have emerged; '*who it is you're actually serving; how the research that you're doing is serving them; and what the methods and the requirements for data in particular will actually achieve that*'.

Moira Faul, Executive Director, NORRAG

3. Strengthening research capacity for mutual learning

Although attention by development partners to research partnerships and strengthening research capacity is not new, the upheaval created by COVID-19 provides an opportunity to rethink the processes by which researchers and partners can develop strong capacities to produce knowledge effectively and sustainably. A major obstacle to strengthening research capacity has been the inability of educational systems to implement evidence-informed interventions and policies. The devastating impact of the COVID-19 pandemic requires evaluating how research might best contribute to equity-centred and evidence-informed education policy responses.

Response to – and recovery from – the COVID-19 crisis involves a range of actors in jointly engaging with research evidence and facilitating knowledge production. Despite the existing spaces for evidence to play a key role at each stage of the policy making process, *'there are still constraints at each step relating to both the supply side and demand side of evidence'*[11]. The pathway from evidence to impact is often indirect, and there is insufficient uptake of research findings into policy and practice. At times, the needs of research users are inadequately understood by the producers of research, and there is a communication gap between the research and policy communities. Strengthened local and national capacities for research can potentially improve the ownership of research findings, buy-in and uptake, especially where mutual learning between research partners takes place.

Recent years have seen a growing interest in implementation science, to better understand and address gaps between research, policy and practice. On the demand side, some institutions and governments are also not inclined to listen to researchers due to other imperatives, tensions and even corruption. '*This trickles down into how governments and institutions collect data; how they analyze it; how they present it and; then again how they store it'*[12]**.** Equally important, evidence is frequently used but is often part of highly politicized decision-making processes in which data and evidence are sometimes used to back up existing positions rather than to inform them.

On the supply side, knowledge producers need to clearly identify research questions that are of direct interest to local, national or international policy makers. As mentioned earlier, due to its impact on education, COVID-19 has led to a proliferation of new research priorities. Nevertheless, not enough is known to support decisions about which distance learning technologies, or pedagogies, are most effective in different contexts, and for different populations. While emerging new technologies call for transformation, policy makers are also asking for more knowledge, for example, about challenges facing the implementation of remote and blended learning strategies, addressing inclusion and diversity, and the scaling up of remedial learning.

The creation of relevant frameworks could help donors to target funding to activities that will effectively address the key constraints and facilitate governments' incorporation of evidence in the long-term. There is the need to invest in ongoing relationships and conversations among funders, researchers and intended beneficiaries of research. These can help to create a research-friendly policy environment and a culture of using research for evidence-informed policies, while also reducing the gaps between research and policy, and enhancing opportunities for national and international collaboration.

More equitable and inclusive research agendas and programmes are needed, especially when it comes to North-South partnerships. This highlights the importance of further discussion on how to best design strategic, contextualized, investments that foster the use of local and 'global' evidence, data and methods. Mutual understanding and the identification of joint interests can support strategic research

11 Sasha Gallant, Consultant and Amy Sticklor, Consultant, Research report: How can we improve evidence uptake in global education? - Lightning Talks 1.

12 Bassel Akar, University of Notre Dame, Lebanon.

designs and investment decisions by donors, funders, research institutions and education authorities. Engaging diverse beneficiaries and users including local stakeholders and policy makers in problem identification, research design, and data collection and analysis, could foster more equitable co-creation and use of research by partners in a spirit of mutual learning.

However, developing equitable research agendas and programmes may require recognizing the power relations through which funding agencies set research and capacity development agendas[13]. Here, making a decolonial shift involves acknowledging the implicit cultural, political and epistemological assumptions underpinning concepts of research knowledge, methods and evidence in conversations about and actions towards research capacity building.

Although digital technologies have considerable potential for research, their accelerated use has limitations for research in contexts where connectivity is not widespread and accessible. Where necessary, alternative solutions should be co-created and adapted to the local research contexts. Without investing in such efforts, new digital solutions may risk exacerbating dependency and creating exclusive rather than inclusive research capacities, programmes and agendas.

Finally, spaces for communication among development partners, with national counterparts, and internationally, through, for example, the Building Evidence in Education (BE^2) working group, could facilitate closer coordination and pave the way for more innovative and effective research funding. Coordination among donors helps; to avoid duplication between what different organizations are supporting; to ensure that lessons, evidence and insights emerging from these initiatives are shared; and to highlight potential areas for collaboration among donors so that individual investments are maximized[14]. Finally, there is the need for close cooperation between education and health researchers, and between social and natural scientists. Cross-national, cross-sectoral and cross-organizational coordination could foster new opportunities for mutual learning, including between education and health sectors, as a way to foster innovative responses to the education, learning and economic crisis.

In order to facilitate effective communication, conferences or dialogues at the national, local and international levels could support the sharing of experiences, priorities and meanings in educational research. These should of course include a diversity of actors, including representatives of teachers, students, employers and civil society organizations, and indigenous communities, among others.

Given that spending on education and research are at risk, due to the financial crisis, steps in favour of strengthening research capacity for mutual learning may be considered an investment in future generations. With possible cuts, it is even more important that resources are allocated wisely, and this depends in a large part on investments in quality and relevant research and efforts to foster co-ownership and eventual uptake by decision-makers.

13 Suzanne Grant Lewis, Director, International Institute for Educational Planning of UNESCO (IIEP-UNESCO).

14 Ian MacPherson, Lead, Knowledge and Innovation Exchange (KIX) and Senior Education Specialist at the Global Partnership for Education, and Kate Ross, Education Research Team, FCDO - Evidence, Knowledge and Research Use (or Knowledge System Strengthening) Special Interest Group.

Examples of how research partners and networks support evidence uptake

With the aim to improve quality education in agriculture, the **Jacobs Foundation** has supported several ministries of education in sub-Saharan Africa to design learning content, including literacy and numeracy, via radio broadcasts. As an evidence-based and research-oriented organization, the Jacobs Foundation has also commissioned studies to conduct an evaluation of the ongoing initiatives to design effective distance learning opportunities for low resource environments and inform national education policy. This initiative stands as an example of how '*to strengthen the resilience of present educational systems but also the resilience of local research capacities*'.

Sosthène Guei, Early Childhood Development Research Associate at Transforming Education in Cocoa Communities (TRECC), Côte D'Ivoire

Together for Early Childhood Evidence: The Consortium on Pre-primary Data and Measurement in Africa is an initiative that focuses on providing evidence for policy change and improvements within the early childhood system. Indeed, the goal is to identify the ways that six countries (Ethiopia, Liberia, Rwanda, South Africa, Tanzania and Zambia) could use these data to improve early childhood. In the first phase, the Consortium supported four country teams in identifying how data and measurement could help leverage change. The second phase is to create country task force teams that include stakeholders, civil society and researchers from various institutions in order to provide capacity for data-driven decision-making in early childhood.

Abbie Raikes, Associate Professor, University of Nebraska Medical Center, and Director, ECD Measure

MineduLAB is an innovation lab for education policy housed within the government of Peru. The goal is to equip the government and particularly the Ministry of Education to use evidence and improve education outcomes. MineduLAB has conducted ten high quality evaluations. These evaluations were co-created from within the Ministry of Education in Peru and have led directly to three scale-ups of evidence-based programs. MineduLAB stands as a powerful example of how one agency can help governments with ownership of data and capacity building of public service staff or civil service staff.

Cynthia Bosumtwi-Sam, Policy Advisor to Innovations for Poverty Action (IPA)

Conclusions

Although the full impact of the pandemic on education – and on educational research – will only become clear over the coming months and years, there is consensus that there is no going back to the situation before the crisis. The crisis has highlighted the interconnectedness of societies and the imperative of closer cooperation between disciplines and sectors, within and between countries, to identify and address knowledge gaps and to develop research capacity.

The questions addressed in this synthesis paper can only partially be answered at this stage, but perhaps, most significant is that they are now on the table for ongoing consideration, reflection and debate. Given the way that the crisis has exposed social, economic and educational inequalities, there are legitimate questions to ask about why these inequalities were allowed to develop and to what extent the established modalities of research and knowledge production for education are 'fit for purpose' in addressing them.

Some of the questions on strengthening research capacity appear familiar, but have a new twist. For instance, what exactly does it take to strengthen research capacity in the context of COVID-19? What exactly is meant by "capacity", what knowledge needs to be produced and for whom in this changed context? The recent nature of the crisis has left some of these questions unanswered in practical terms. Yet, answers are critical for addressing the most severe crisis in education in modern history. It may be worth considering what can be learnt from previous experiences of research in the area of education in emergencies. There is also much to learn from international and comparative education research around the world.

This synthesis paper suggests a number of conclusions and identifies several dilemmas:

First, the nature of the COVID-19 crisis has brought some long-standing questions about education into sharper focus. The crisis has broadened education research agendas to wider questions about global inequalities and 'development', while the imperatives of education response and recovery have shifted research priorities. Resources and focus have switched to pandemic-related research topics and questions – especially health research – and on the multifaceted impact of the crisis on education. Other topics and questions have been de-prioritized to the extent that there is a risk that important, but less urgent, research topics and questions will be neglected.

Furthermore, the pandemic has revealed the limits of orthodox knowledge production processes and its politics. Indeed, previous concepts, methods and practices in educational research might not be entirely appropriate for the current context. As the global nature of the crisis calls for global solutions and cooperation, researchers, partners and funders must question their current understandings of research, evidence, data and research methods. Here, the concepts of 'research' and of the 'researcher' need to be broadened in order to embrace the diversity of knowledge and the diversity of researchers, including previously excluded or silenced voices and knowledge producers.

In particular, the voices of social movements, including Black Lives Matter, heard during the pandemic, can be interpreted as part of ongoing anti-colonial and anti-racist struggles in education that have implications for educational research and evidence, knowledge production processes, and research partnerships and networks. Once the power relations in research - and historical and geographical legacies - are made 'audible and visible', researchers can more easily begin to find a way of framing and thinking about what needs to be addressed and how best to do so. Structural challenges can be identified and addressed, and new collaborative research methodologies can be created. These could be empowering of national and local research capacities, including the capacities of people who may produce and represent knowledge in ways specific to different contexts, cultures and languages.

Second, when it comes to partnerships and networks, conversations within and between countries, could advance mutual learning at the local, national and international levels. However, there is not only a need to ensure that research partnerships are equitable and facilitate mutual learning, but also that they are inclusive of marginalized institutions. This would help to diversify research perspectives and tools while also contributing to reimagining education and its role in response, recovery and the future. However, new challenges and dilemmas may emerge from the new and changing nature of research partnerships and networks, not least because of social, cultural and economic differences.

The use of digital technologies for research may have contradictory effects because they can simultaneously enable new connections and collaborations whilst also creating dependency and new barriers for those without connectivity and access to digital devices. Here there may be a tension between fully mobilizing digital technologies for educational research and efforts to decolonize social relations among researchers, partners, networks and funders. The ethical issues around using digital technologies for educational research and the implications for strengthening research capacity, partnerships and networks merit sustained attention.

Finally, it is evident above that the pathways from research evidence to policy and implementation are often indirect. Indeed, policy decisions are often based on incomplete information and in some cases even lack of data and evidence. Researchers and partners could seek to improve the quality, relevance, applicability and communication of education research. Conversations between donors, beneficiaries, policy makers and researchers are more important than ever to identify research problems, to co-design research projects, and to co-create research knowledge. Research funders may wish to identify more sustainable, effective and equitable ways to invest in educational research by examining assumptions, considering how to develop a culture of knowledge production and use, and examining the medium to long-term impacts of research and evaluation projects, from the perspective of strengthening research capacity and mutual learning.

Throughout the preceding discussion, it has become evident that values and ethical judgements are never far from the themes, questions and issues discussed. Even the discussions of the changing meaning of 'research' and 'evidence', as well as the nature of research partnerships and networks, and research uptake, are more value-laden than might have been foreseen. Until recently, it has been difficult to talk about values and ethical judgements in conversations about research evidence, because of the esteem with which objectivity in research methods is held. The BE^2 Meeting has made a positive contribution to this.

Finally, as a consequence of the pandemic, international collaboration has moved from being an optional issue to being an imperative. While governments, funders, universities and academic communities are increasingly trying to foster collaboration, much remains to be discussed for research and the production of knowledge itself to become a human right.

In reflecting on the implications of the COVID-19 crisis for educational research and what it means for strengthening research capacity, partnerships and networks, this thematic synthesis paper raises some critical dilemmas and questions deserving greater attention in the months and years to come. Strategic investments in the capacities needed for research and knowledge production, communication and collaboration, in a spirit of global solidarity, can create new opportunities for mutual learning and potentially contribute to the ideas and know-how for a more sustainable and peaceful future.

Annex: Key action points

The following action points draw upon the inputs and examples shared by speakers and participants during the BE[2] meeting in October 2020. Far from being exhaustive, the list serves as an aide memoire of action points available to researchers, policy-makers, development partners, education authorities and other stakeholders. They involve ethical judgments that can potentially shape future research processes and contribute to socially responsible, equitable and inclusive research partnerships and networks, and strengthened research capacities for mutual learning.

1. The impact of the COVID-19 crisis on the nature of evidence, research priorities, and research methods:

The crisis has deepened awareness of the importance of reliable data, and equitable research and knowledge production. Several steps can help researchers to understand the changing research priorities and nature of data, evidence and research methods.

1.1 Challenge the epistemological assumptions behind the dominant concepts of data, evidence, methodologies and research. For instance, acknowledge the implicit cultural and political assumptions underpinning concepts of research knowledge and evidence, including in the language around research capacity building.

1.2 Analyze the ethical dilemmas emerging from technological developments and innovations in educational research. ICTs may affect the speed, accuracy and quality of knowledge production as well as the inclusion or exclusion of local knowledge, data and evidence. The lack of access to connectivity across various research communities and networks may potentially further exclude marginalized voices.

1.3 Question the assumptions behind what counts as *'research' and the role of a 'researcher'*, and go beyond what is currently understood as objective and rigorous research methods, data and evidence, to include a wider range of knowledge production processes.

2. Emerging research partnerships and networks:

Research partnerships and networks can support effective mutual learning and the co-creation of inclusive, holistic and equitable knowledge. Useful experiences are presented about promising ways to work together in a time of great disruption.

2.1 Make establishing the rules or framework for a partnership arrangement a collaborative process by considering some of the following questions: who sets the framework of the partnership? what are the objectives? who gets the credit for the achievements of the partnership? how will the success of the partnership be evaluated in the long-term?

2.2 Consider key questions around data and research when conducting research in a partnership or network including; who it is that you are actually serving? how the research that you are doing is serving them? and what the methods and the requirements for data in particular will actually achieve that?

2.3 Demystify research to engage learners, practitioners, policy makers and researchers so they work collaboratively to design and conduct research together for mutual learning. Examples of steps for mutual learning in educational research could include: making local community members effective researchers; connecting with local scholars and supporting data collection and analysis on the ground and; investing in the next generation of university students and teachers in local communities.

3. Strengthening research capacity for mutual learning:

Effective and equitable co-creation and co-implementation of research appears central to address the impact of the crisis on educational systems. The key actions below may support more equitable research capacity development in order to co-create sustainable data, evidence, methods and research.

3.1 Question the power relations involved in research funding and their influence on research and capacity development agendas and programmes. For instance, the co-design of equitable research agendas and programmes requires acknowledging implicit cultural, political and epistemological assumptions underpinning concepts of research knowledge, methods, evidence and research capacity building.

3.2 Discuss and share best practices to help knowledge producers navigate the local political environment and economy on the supply side of knowledge production processes. Equip the government and particularly ministries of education and relevant agencies to use data and evidence to improve their decision-making on the demand-side, for mutual learning.

3.3 Beyond capacity development, create platforms for meaningful dialogue and capacity exchange with diverse beneficiaries, producers and users of knowledge, including local stakeholders and policy makers. Spaces for communication may foster co-creation and co-implementation of knowledge in education; help bridge the gap between researchers and policy makers; advance cross-national, cross-organizational, and cross-sectoral dialogue; and support the engagement of diverse stakeholders with research and knowledge production and utilization processes.