

Proposing Research for Education Technology in a Post-Covid-19 Society: Perspectives of a new Doctoral Student

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As a doctoral student, developing a proposal for research within the field of education technology is a daunting yet exciting prospect. In this article, I reflect on some of the apprehensions I have as a new student during the Covid-19 global pandemic, drawing upon some of the contemporary challenges faced by institutions and researchers, and considering how proposals for future research may be impacted by recent dramatic and sudden transformation of the field. My initial proposal for the Doctor of Education programme took the form of a case study approach to evaluating the potential of education technology and hybrid learning strategies within the traditional learning environment, with a specific focus on post-16 education within the UK. One methodology of interest at this initial stage was action research due to its central aim of change and problem solving (Thomas, 2017). However, due to the Covid-19 global pandemic, I am compelled to critically reflect and review these ideas.

Technology is a rapidly evolving field of research. Inside the classroom, a plethora of EdTech companies have emerged to provide solutions that claim to aid teaching and learning, and technology impacts almost every aspect of students' everyday lives (James and Busher, 2013). These rapid developments pose challenges to educational institutions that attempt to keep up with this pace of change (Department for Education, 2019). Consequently, when developing my initial research proposal in early 2020 for a programme that would span 5 years, the temporal validity of my work was already at the forefront of my mind. Little more than a year later, I find myself in the preliminary stages of developing a full proposal and the field of education seems almost unrecognisable from that which I set out to study.

To frame my reflections, I draw from a range of sources and it is important to comment on the type of literature cited. Research during the Covid-19 pandemic has been challenging, resulting in an ethical and methodological minefield (BERA, 2020). Thus, many researchers have taken alternative approaches to narrate and reflect on these events, such as desk-based studies and blogs. Furthermore, the Covid-19 pandemic is a global event during which its peak saw 167 country-wide closures of schools, impacting almost 1.5 billion enrolled learners worldwide (UNESCO, 2021). Schools and other educational institutions have been forced to rapidly adapt to online delivery, causing the global adoption of education technology to be accelerated (Ash-Brown, 2021). Therefore, it is valuable to acknowledge international literature – whilst traditionally there may be issues of comparability due to social, cultural and economic differences, many writers offer interesting insights into responses to the pandemic from a broad variety of perspectives.

For example, Teräs et al. (2020) compare the dramatic shift to remote education with Strong's (1990, cited in Teräs et al., 2020), model of epidemic psychology, dubbing it an 'epidemic of action'. Reflecting on my own experience as a teacher at a UK sixth form college, this is an excellent analogy to illustrate the dramatic influx of action taken by education professionals and institutions to continue providing for their students. This mass simultaneous action throughout the sector highlights the temporal nature of research, particularly in the field of education technology. It is essential for me to understand this temporality and the position of my own research within this context and should have a significant impact on the way that I review existing literature in this field. I believe that it is essential to critically consider to what extent research prior to this shift relates to future research, and also to what extent research conducted during the pandemic be generalised outside of these unique circumstances. Presently, I feel that it is too early to speculate constructively on this, however ultimately, the way that I develop my own research proposal and any assumptions that I held pre-pandemic must be critically reviewed.

Prior to the pandemic, my assumption was that we, as teachers, could be harnessing technology much more effectively to enhance learning. Subsequently, it could be argued that the 'epidemic of action' has provided unprecedented, albeit largely involuntary, opportunity for teachers to adopt new practices that they may otherwise not have had the opportunity to explore, thus providing the basis for an extensive amount of action research and supporting my initial methodological ideas. However, as noted previously, it could also be argued that due to the extenuating circumstances of the pandemic, there has been very limited capacity for research and reflection – it has been more action than research. Despite this, some publications have attempted to document these actions. For example, Ferdig et al (2021) curated a series of 'stories from the field', that documents the actions of some education professionals, whilst acknowledging the need for future study;

'these 'stories' were not your typical research narratives. In other words, these were not stories that began with a theoretical idea, developed into a research plan, received human subjects research approval, resulted in collected and analysed data, and then were going to be turned into 30-page academic papers. Rather, these were stories of heroes using technology to respond to desperate situations.' (Ferdig et al., 2021, p. xiii)

Each 'story' was accompanied by an analysis of the potential of each action as an area of future study, showing an abundance of future opportunity within the methodology of action research. Although the use of language such as 'heroes' perhaps presents a 'rose-tinted' perspective, reflecting the bias of this particular publication, it is a useful example of an attempt to provide narrative of the experience of educators during this time. Thus, commenting on such responses more generally, LeFevre (2020, para. 3) proposes that these technological innovations 'should not be misconstrued as representing the field's full potential, but nor are they without value'.

It is interesting to consider if and how this period of enhanced technological innovation might transform the traditional classroom environment, which could provide an interesting direction for my own research. However, despite this significant practical progress, there appears to be a concern surrounding a disparity between education technology and genuine

pedagogical principles. Ahead of the pandemic, there was a widespread call for a critical approach to research in education technology and several papers were published criticising education technology providers for prioritising profit over impact and effectiveness of use within teaching and learning (Williamson, 2020 cited in Teräs et al., 2020). Furthermore, with the emergency adoption of a broad variety of learning technologies due to the pandemic, it could be argued that the tension between education technology and pedagogy has further been exacerbated, as teachers have turned to many technological solutions overnight, with little time or capacity for pedagogical thought, such as creating meaningful learning experiences and effective strategies such as assessment, scaffolding and differentiation. It is exactly for this reason that Teräs et al. (2020, p. 869) suggests that we should 'study the assumption that digital educational technologies offer quick fixes to every possible problem—without further investigation into their intertwining pedagogical, political, social, and individual consequences'.

It seems there is a potential balance to be made, between the ongoing legacy of innovation of the pandemic, and a critical approach in such areas. This balance is reflected in papers such as Thompson and Lodge's '2020 Vision: What happens next in education technology research in Australia' in which researchers attempt to take account of the situation within the broader context of education, and frame the potential future implications of this period. Although this vision refers to the situation in Australia, it provides an interesting account of recent policy, funding and research matters that are feasibly mirrored to some extent in the UK, and demonstrates the wider contextual issues that I should consider within my own approach to research. Over a year since the start of the pandemic, increasing amounts of literature is emerging in these areas and will play an important role in shaping my own research proposal through both socio-economic contextualisation and theoretical underpinning.

Although it is difficult to predict the long-term impacts of this turbulent period, it is broadly speculated that many of the new tools that teachers have adopted for remote learning will continue to be used to some extent (Thompson and Lodge, 2020; Code et al, 2020). This is the most significant reflection that compels me to critically reflect on my initial thoughts around action research as a potential methodology. It is evident that there is capacity for action research to more critically explore the potential of technological interventions that took place during the pandemic and fulfil my initial aims of evaluating the potential of such uses of technology within the traditional learning environment. However, albeit largely reflecting on my own experiences as a practicing teacher, I wonder whether, after an 'epidemic of action', there is an element of fatigue among teachers that may inhibit the potential of action research. Whilst there may be ways of encouraging teachers to engage with action research, these circumstances have inspired me to reflect on my own interests and assumptions. Most significantly, whether my research should aim to drive innovation and adoption of technology to enhance learning, or whether it is perhaps more pertinent to pause and take account of the current situation. Thus, more exploratory methodologies such as ethnography could be interesting avenues to consider as I continue to work towards my full proposal. Overall, this reflection as raised further questions that I presently do not feel able to reasonably answer, however these will certainly shape the next steps as I continue to explore the field and the potential direction of my own research.

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