Educational leadership, technology and COVID-19: Exploring observations, challenges and future predictions

Joe Perkins

Centre for Educational Leadership, UCL Institute of Education, London, UK

Joe Perkins* is a doctoral candidate within the UCL Centre for Educational Leadership. His research interests include leadership, educational technology and whole school change.

Abstract

With social distancing prompting school closures for most pupils across England during March-July 2020 due to the COVID-19 pandemic, many educational leaders relied on technology to deliver remote learning for pupils, enable staff collaboration and facilitate the administrative functioning of their organisations. This study explores the accounts and observations of the use of technology during this period from Chief Executive Officers (CEOs) leading multi-academy trusts (MATs). Technology leadership and decision-making dynamics within these organisations are explored through the lens of direction-setting, agency and control (Hughes, 2019). Findings suggest that these organisations were able to implement many successful technology-enhanced practices to support students to continue to learn at home, yet challenges and unresolved tensions remained. The study concludes with insights from CEOs predicting future uses and trends for technology in education and recommendations for areas of further research.

Keywords: leadership, management, technology, COVID-19, multi-academy trust

Introduction

Peer-reviewed literature on the impact of COVID-19 in education and leadership is emerging at the time of this writing. Some evidence from around the world (Fotheringham et al., 2020; Hall et al., 2020) suggests that the rapid shift to online, virtual and remote learning due to mass school closures has accelerated the adoption of technology across the education sector. Other research has highlighted significant challenges faced by school leaders during this period including student device and internet access (Burke & Dempsey, 2020), anxiety and lack of staff preparedness (Crick et al., 2020; Hall et al., 2020) and an inequality in support for disadvantaged pupils (Cullinane & Montacute, 2020; Harris, 2020).

This research focuses on multi-academy trusts and the CEOs who lead them. Almost half of all pupils in state-funded schools in England are educated within an academy converter or MAT (Department for Education, 2019b). MATs offer a significantly different governance and structural context compared to more traditional local authority-based school systems. MATs are usually lead by a CEO who has authority over the centralised trust executive team

as well as the school-based headteachers. Hughes (2019) describes the role of the CEO as a unique position within a macro neoliberal education context of economic liberalisation, consumer choice and market-based competition. Within the challenging context of school closures during the COVID-19 pandemic, this research explores these leadership and decision-making dynamics related to educational technology through the perspectives of CEOs and considers future predictions for technology in education.

For this study, four research questions were identified to provide insights into the above areas. Leadership style and organisational dynamics are explored in the context of literature relating to MAT CEO leadership praxis and general leadership styles and behaviours. The Department for Education (DfE) Edtech Framework for Change (Department for Education, 2019a) provides a lens to explore technology use in the context of teaching, assessment, professional development and administrative (non-teaching) processes. Finally, based on accounts from these CEOs, predictions for the future are considered against the Three Horizons Framework (Baghai et al., 2000) identifying short term, medium term and long term opportunities for technology in education.

CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS		
Leadership style and dynamics	Technology practices and observations	Future opportunities and predictions
Research question: • How do MAT CEOs define their organisational leadership and decision-making approach to technology in education?	Research questions: • How was technology used by the organisation to support the continuation of learning provision as a result of school closures? • From this experience, what insights and perspectives do educational leaders have of technology in education since COVID-19 school closures?	Research question: • How have these new insights informed how MAT CEOs view the potential for technology in education in the future?
Theoretical underpinning: • MAT CEO Leadership praxis: direction-setting, agency and control (Hughes, 2019) • Leadership styles and behaviours (Bush & Glover, 2014; Goleman, 2000)	Theoretical underpinning: DfE Edtech Framework for Change: • Administration processes • Assessment processes • Teaching practices • Continuing professional development (Department for Education, 2019a)	Theoretical underpinning: Three Horizons Framework • 1st horizon: current paradigms • 2nd horizon: incremental adjustments • 3rd horizon: emerging paradigms (Baghai et al., 2000)

Materials and methods

As the research was exploratory in nature, a flexible case study methodology was used to seek to understand a range of participants' views and capture data demonstrating new insights and practices. Data was collected through semi-structured interviews. Participants were

identified from three different multi-academy trusts in England. For consistency, all CEOs led multi-academy trusts of a similar profile determined by factors including the size of the trust (8-14 schools), religious ethos (none) and similar primary-to-secondary school ratio. MAT was based in South England, one in the Midlands and one in North England. All MATs had individual schools with more mature technology implementations (for example, all students and teachers with a personal device) but all were also non-homogenous in the level of teacher and pupil technology access and provision across their schools. All CEOs also came from former headteacher or executive headteacher positions and were established in their positions.

MULTI-ACADEMY TRUST	SCHOOLS	PARTICIPANT PROFILE	
Multi-academy Trust A	13	CEO, Male, former headteacher	
Multi-academy Trust B	9	CEO, Female, former headteacher	
Multi-academy Trust C	13	CEO, Male, former headteacher	

Data was collected through semi-structured interviews conducted remotely over telephone or via a virtual meeting. Transcripts were generated using an artificial intelligence transcription service and were corrected for accuracy through repeated readings by the researcher. Repetitions and hesitations were removed. To ensure validity of the data collection and analysis, the interview transcripts were sent back to each participant and an opportunity provided to clarify, expand or correct any responses. The research was conducted in accordance to British Educational Research Association (BERA) guidelines for the ethical conduct of research.

This study makes use of techniques and methods commonly associated with content analysis. Initially, all transcripts were read and re-read thoroughly to begin to understand the emergent themes. Data was then analysed in detail through an iterative process using NVivo software. Using an open coding process, data was interpreted, labelled and sorted into conceptual categories (Robson, 2016). This was followed by an axial coding process to link together and combine categories, followed selective coding by focusing on one thematic category and successively interpreting the data (Watling et al., 2012). The data was then grouped into structures and hierarchies aligned to the three areas conceptual framework for the research: Leadership style and dynamics; Technology practices and observations; and, Future opportunities and predictions.

A second-level coding process (Robson, 2016) then classified each node as either very strong, strong, moderate or weak. While the quantity of similar responses from the CEOs was a key criteria, the significance and depth of responses to the interview questions was also a consideration in the node classification. For example, data where more concrete or elaborate perspectives, accounts or observations were provided was classified with a stronger degree of significance. This criteria is identified below.

CLASSIFICATION	CRITERIA
Very Strong	Clear, significant and robust data from all three participants
Strong	Clear, significant and robust data from two participants; or Mostly clear and robust data from all three participants
Moderate	Mostly clear and robust data from two participants; or Clear, significant and robust data from one participant
Weak	Mostly clear and robust data from one participant

As will be seen in the next section on the results of the analysis, data was then displayed in tables in order of the strength of the data classification in order to support the thematic analysis, make comparisons and understand the larger 'narrative' and findings from the research.

Results

Leadership approach and behaviours

The research produced interesting findings regarding the leadership characteristics, approaches and backgrounds of the CEOs themselves. It also produced findings related to the MAT organisational implementation of technology and leadership dynamics related to provision. The findings below are broken into these two categories.

Findings: CEO Leadership Style and Background	Findings: MAT Organisational Technology Implementation	
[Very Strong] Former school-based technology advocate	[Very Strong] Inconsistent MAT-wide technology provision and capability	
[Very Strong] Situational and adaptive leadership	[Very Strong] More advanced schools and individuals leading the way for others	
[Very Strong] Distributed decision-making to headteachers	[Strong] Challenges in MAT vs school-based direction-setting, including funding factors	
	[Strong] Secondary schools leading primary schools in technology provision	

All CEOs considered themselves advocates for the effective use of technology and described their successful experiences either teaching with technology in the classroom or leading successful technology programmes in former school-based headteacher roles. When prompted, two of the CEOs agreed that their positive experiences regarding technology from earlier in their career influenced their current disposition and support for the use of technology in education. There was strong evidence that, at times, challenges and tensions

exist between the CEOs and the headteachers within their organisations when setting a direction for technology strategy, creating MAT-wide consistency and getting buy-in for support. These findings reflect existing research which describes the complexity of decision-making between the MATs and their school-based leadership teams (Baxter & Cornforth, 2019; Greany & Higham, 2018). All CEOs described their general leadership approach as empowering headteachers and schools to make decisions in the best interests of their school communities.

"The pyramid often looks like me sitting on top as the CEO and I always say, "it's the other way around". I'm squashed underneath... I sit at the very bottom of the hierarchy, making sure they can do what they do." – CEO, Multi-academy Trust A

Equally though, all CEOs also described themselves taking on a more directive approach if the situation warranted it.

"As a Trust, there are one or two areas that I feel "No, this is the direction, this is where we want to go", but we've done that in a very subtle way." – CEO, Multi-academy Trust B

Essentially, the leaders described how they usually took a collaborative, democratic and distributed leadership approach to decision making, while also enacting a direction-setting and authoritative approach in particular circumstances (Goleman, 2000). CEOs suggested that a centralised provision of technology infrastructure and support afforded cost-savings, efficiencies and knowledge-sharing, while equally acknowledging the benefits in empowering individual headteachers and school communities to pursue models which work for their context. This has some alignment to other recent research which found that leaders usually take a highly distributed and collaborative leadership approach when it comes to decision-making on remote learning provision (Burke & Dempsey, 2020). There was strong evidence that this balance between organisational direct-setting and local school autonomy can be challenging. A factor in this tension might be where the funding is situated. One CEO described the successful implementation of a software programme across the organisation where it was funded centrally from the MAT cash reserves. In contrast, another CEO described challenges in trying to establish a stronger core technology provision across the organisation, but which relied on the MAT 'top slicing' a larger percentage of funding from each school in order to fund it. All CEOs described an inconsistent and inhomogeneous technology provision across their schools, perhaps a further illustration of these challenges in leadership and decision-making dynamics. Interviewees described some 'best practices' of technology adoption, both pre-COVID-19 and during school closures, from a sub-section of their organisation. They each described individual schools or headteachers with more advanced technology adoption who were leading the way for others. There was also a strong articulation from two of the CEOs that their secondary schools were further advanced in technology adoption prior to COVID-19 and therefore had a more seamless transition to remote learning and teaching. They suggested the primary schools within their organisations has less access and capability and that some were more reluctant to embrace technology.

"Our primary schools are very typical of primary where you've got, generally, a single IT room in the school... very low levels of IT use and certainly not robust and reliable networks in place at all." – CEO, Multi-academy Trust A

Cullinane & Montacute (2020) similarly found secondary schools were generally better equipped and capable of facilitating remote teaching and learning compared to primary schools across the sector. To explore this area more deeply, technology use and practices observed by the CEOs will now be discussed in greater detail.

Technology use, practices and observations

During the interviews, each CEO shared detailed observations of how technology had been used across their schools from the perspectives of 'emergency remote learning' provision (Crick et al., 2020), parental engagement, staff communication and support and general day-to-day administration, budgeting and planning.

General Observations	Remote teaching and learning	Staff and Teachers
[Very Strong] One-to-one school preparedness and rapid transition	[Very Strong] Mixed parental expectations and experiences	[Very Strong] Pre-COVID reluctance for virtual meetings
[Strong] Platform security and capability concerns	[Very Strong] Some effective models of teacher-student virtual interaction	[Very Strong] Deeper adoption of online platforms
[Moderate] Initial Teacher Union challenges	[Very Strong] Lack of comfort in using the camera for live lessons	[Very strong] Increased technology knowledge, willingness, confidence and/or motivation
[Weak] Increase in inter-school collaboration	[Strong] Live lesson safeguarding concerns	[Strong] Difficulties with virtual meetings
[Weak] MATs/schools still learning and developing remote provision	[Moderate] Asynchronous more effective than synchronous	[Strong] Mixed staff personal experiences
	[Moderate] Challenges with teacher observation	_

Firstly, the data strongly suggests that schools who had an existing mature technology provision (for example, a student one-to-one device programme) were well prepared to rapidly transition to remote teaching and learning at home. There was strong evidence of MAT leaders critically evaluating the technology platforms their schools were adopting and with some concerns either about security or general capability and feature-set. For example, the rapid, accelerated adoption of virtual meeting platforms across these organisations brought concerns and challenges for leaders which weren't a focus when these platforms

were used on a more limited and ad-hoc basis prior to the pandemic. All CEOs described at least some examples of effective remote teaching and learning in their organisations during school closures, mostly through deeper integration and usage of existing platforms, a finding which aligns with other recent research (Fotheringham et al., 2020). All participants also observed an increase in either staff technology knowledge, willingness, confidence or motivation – or in more than one of these areas.

"We have moved lightyears ahead over the last few months. It's totally projected us forward – maybe at least two or three years." – CEO, Multi-academy Trust 2

There was also very strong evidence of some of the ongoing challenges and complexities of technology use. One particular area which came up in all interviews related to the delivery of synchronous, 'live lessons' (for example using Zoom or Microsoft Teams) and use of webcams. In the delivery of teacher-led live lessons, all CEOs described some reluctance and tentativeness by teachers and/or students to turn on and use their camera to broadcast video while teaching or learning at home. The data suggests this is due to a lack of confidence, potential safe-guarding concerns or general uncomfortableness at the invasion of privacy. For teachers and students in these MATs, the rapid transition from the traditional time-and-space boundaries and uniform context of a school classroom to live video conferencing in living rooms, dining rooms and bedrooms was uneasy. One CEO described the desire to continue teacher-student connection during school closures but was challenged in identifying the best way to enact a MAT-wide policy. Compared to secondary schools, there was some evidence that live lessons with younger students was better received by teachers. One CEO described how asynchronous lessons were embraced by parents and presented potentially fewer safeguarding concerns in a primary school context.

"Let's take it case by case and let's allow this primary school to continue with Zoom, and to do those live lessons in Zoom, because that seems to be working and let's see how that goes. The feedback from the parents about those live lessons have been universally popular. Universally. They really love it. Teachers have enjoyed it too." – CEO, Multi-academy trust 1

There were also further suggestions that some of the adopted technology platforms weren't designed with feature sets relevant to the remote learning—at least the feature sets available at the beginning of school closures.

"I'm not clear about the control of the camera. All the kids have got the cameras off at the moment. I'm still not sure whether that's right or wrong. How you can make it so the teacher can see the kids, but the kids can't see other kids?" – CEO, Multi-academy trust 3

There was also some evidence of CEOs critically evaluating the value and student receptiveness of synchronous versus asynchronous lessons. While research suggests there is little difference in effectiveness of asynchronous and synchronous online learning approaches (Means et al., 2013), this research has suggested a clear preference from students.

"At secondary level, a lot of the kids say that they don't actually like having their cameras on. "We don't like being seen because we're sitting here in our onesie and we find a bit weird, so we'd rather not. And actually, we would prefer just if you're going to do a lesson, we'll watch it offline... We'd rather do in our own time." They were much less positive about live lessons at secondary level. And Post-16 at Year 12: forget it. They just don't want to do it. Which we found really quite interesting." — CEO, Multi-academy trust 1

There was moderate evidence that CEOs also wanted greater data and analytics about how pupils were engaging in virtual environments. One CEO described how data easily collected in a traditional classroom environment (for example, attendance or formative assessment data) became more challenging to collect in virtual environments. Additionally, there was some evidence of CEOs challenged with teacher observations. While in a traditional school environment, leadership teams would be able to easily attend lessons and conduct formal or informal teacher observations, this became more challenging in a virtual environment. There was a concern from one CEO that the threat that Ofsted might conduct observations within a teacher's live lesson would stifle innovation in remote teaching.

Observations were different when CEOs considered how staff were participating in virtual meetings during school closures. Each CEO described a pre-COVID-19 reluctance to engage in virtual meetings, at least with some staff in their organisations. While there was very strong evidence to suggest that staff had increased their depth of usage of online platforms and virtual meetings – and in fact, were using their cameras *more* with colleagues than prior to COVID-19 – there were equally challenges related to communication, sustaining relationships and replicating practices and norms common in a face-to-face environment.

"So I'm the chair of [a] secondary heads [regional committee]. Normally at our meetings I'm desperately trying to get the buggers to come out in the coffee room and come and sit and have a meeting. Now they will sit there in utter silence until I say "good morning colleagues" because we've got 40 Headteachers all not wanting to say the wrong thing... How do I replicate those kinds of things [in a virtual environment]?" – CEO, Multi-academy trust 3

There was strong evidence of mixed staff personal circumstances and experiences during school closures. Similar to findings from Fotheringham et al. (2020) and Burke & Dempsey (2020) from studies conducted at the same time as this research, some CEOs reported significant school leader stress and mental health challenges negotiating lockdown and working from home. However, this was not uniform. The data suggests the staff experience during school closures varied significantly.

"Another CEO and I - we had to catch up call last week and he said, "Can I say this out loud? This has been bloody brilliant. I've got so much done. I've even started doing exercise for the first time in years" – CEO, Multi-academy trust 3

"Our staff absence has been zero. We've had no tummy upsets, no migraines... no staff absence whatsoever. I think that speaks volumes. It really, really does." – CEO, Multi-academy trust 2

One CEO reported initial opposition from Teacher Unions to expectations that teachers provide a remote-support provision, but this was overcome quickly. There was some weak evidence that inter-school staff collaboration facilitated by technology has increased during school closures. Other recent research by Fotheringham et al. (2020) suggested a more significant increase in school collaboration across the sector. Finally, one CEO considered they were still early in their understanding of the best ways to use technology for remote learning and teaching. Based on these accounts, observations and reflection, each leader described potential opportunities for the use of technology in their organisations in the future.

Future opportunities and predictions

"Here is an opportunity, not do it differently, but to do it better. To actually use a medium which our young people are completely conversant in and utterly confident in, which us laggards from the past didn't even know about until COVID-19 came along and we had to suddenly get to grips with it. This is such an opportunity." – CEO, Multi-academy trust 1

Based on their observations and learnings during school closures, CEOs shared ideas of how technology might shape their organisations and teaching and learning in the future. The Three Horizons Framework (Baghai et al., 2000) provides a model to categorise these findings as reflecting the current paradigm (1st horizon), incremental adjustments to current practices available in the near term (2nd horizon) or new and emerging paradigms offering significant innovations in the future (3rd horizon).

General Reflections
[Very Strong] Redefining time and place for students and teachers
[Strong] Virtual meetings, time-savings and operational efficiencies
[Strong] Digital assessment, feedback and personalisation of learning
[Strong] Ongoing access and funding challenges

1st Horizon – Current Paradigm

With all CEOs reporting an increase in the successful adoption of technology for virtual staff and administrative meetings, there was strong evidence for these practices continuing in the future to enable time-saving and administrative efficiencies. CEOs plan to continue using technology for virtual planning meetings with school leaders, MAT executive meetings and governance meetings. Suggestions that schools will continue to exploit the benefits of

technology platforms for online learning and virtual meetings is also consistent with other recent research (Fotheringham et al., 2020).

"Ordinarily, we would have budget planning meetings with every Head which would mean that they would drive over, you take half a day out of their time to be here to have those meetings and then they're out of school. We've done all of our three-year budget projections, along with all of our trust meetings and our school board meetings, all virtually, and it's been far more efficient. We won't go back. We will definitely continue to operate in that way." – CEO, Multi-academy trust 2

One CEO also suggested that their teacher CPD model for next academic year will be based on a more flexible model based on staff connections and collaboration using technology.

2nd Horizon – Incremental adjustments in the short term

There was strong evidence that student access to appropriate technology for learning at home remains a key challenge. Recent research from around the world found a lack of access by students to appropriate technology to use at home as one of the key barriers to the continuation of learning during COVID-19 (Burke & Dempsey, 2020; Mailizar et al., 2020; Mohan et al., 2020). Data from this research strengthens these findings. In addition, this study also found challenges when MATs asked students and families to report upon the nature of 'access' they had at home, due to either poor completion of community surveys or through a lack of nuanced understanding of what 'access' meant.

"When we surveyed families to understand their technology access at home, we found parents were too embarrassed to tell us. Children said "yes, I have access" when we knew they didn't. Or they did have access to a computer but it's shared with three others and dad spends all his time on online gambling sites - that's what the challenge is." – CEO, Multi-academy trust 1

There was strong evidence from two CEOs of the desire to accelerate and expand the technology provision to teachers and students within their organisations in the short term. However, challenges were identified related to sustainable funding and also an unclear understanding of the potential role the Department for Education might play in the future given the centralised government provision of devices to some students during school closures (Department for Education, 2020).

3rd Horizon – Emerging paradigms offering new innovations

CEOs reflected on the longer-term implications for the role of technology in education. They shared ideas and emerging models which would redefine how and where learning and teaching happens. Observations and experiences during school closures had empowered all of these CEOs to begin to rethink and challenge some of the '9am-3pm' norms of the traditional school day. The data suggested that the potential of technology to increase teacher-student connection for formative assessment, feedback and support – no longer limited and defined by a set timetable – presents an opportunity for accelerated student progress and engagement. Two CEOs spoke about how technology could support much more effective student mentor

and pastoral support meetings in the future. There were also suggestions of using technology to better share teacher resources and expertise at a national level, particularly in subjects and areas where teacher recruitment was an ongoing challenge. CEOs identified potential uses for technology in their organisations to evolve current practices in the short term, while also sketching an outline of a future vision based on more ambitious and aspirational uses of technology, achievable in the long term.

Discussion

The data suggested that the nature of the agency and control MAT CEOs have in the technology leadership and direction-setting within their organisations can be complex. Each leader identified approaches which broadly reflect distributed leadership and a 'default' disposition to empower the headteachers within their organisations. This aligns with broader literature which describes the common and normative nature of distributed leadership in English education today and the move away from leadership practices which are centralised, solo and 'heroic' in nature (Bush & Glover, 2014; Crawford, 2012). With consideration to recent school closures, Harris (2020) argues that distributed, collaborative leadership has become the only way for education leaders to operate in response to COVID-19 as they have had to quickly adapt to new ways of leading 'through their laptop'. The size of these MATs may have played a role in these findings. Wilkins (2017) describes how larger MATs often have more prescriptive and rigid structures of governance and compliance, compared to smaller MATs which provide more delegated freedom to each school. MATs in this study might still have been small enough for CEOs to operate through distributive leadership approach compared to MATs with 40, 50, 60 or even 70+ schools. However, a tension exists in the findings between the CEOs' distributed leadership approaches and the lack of a uniform and equitable provision of technology across all these MATs. How do CEOs of MATs improve the digital readiness of their organisations for future localised or cohort-based closures while continuing to adopt 'decision-delegating' approaches which empower local school governance?

Each of the CEOs shared insights of technology-enhanced education provision during school closures. Examples of practices spanned all areas identified in the DfE Edtech Framework for Change, including Teaching practices, Assessment, Professional Development and Administrative tasks (Department for Education, 2019a). Findings were particularly strong and positive when CEOs described technology use for non-teaching tasks such as virtual staff meetings. Findings suggest many teachers across these organisations increased their adoption of technology to support teaching and assessment. The nature of the rapid adoption of these methods to support students at home have led some authors to describe this as a unique type of 'pandemic pedagogy' (Williamson et al., 2020), offering valuable opportunities and affordances for the continuation of learning while also challenged in areas such as uniform technology access, student engagement, safeguarding and inconsistencies in receptiveness for synchronous lessons. As the pandemic continues into the new academic year and many schools remain partially closed (Whittaker, 2020), teachers will need to consider an pedagogical approaches which are truly 'blended', offering a continuation of learning regarding of whether pupils attend school in-person or at home. CEOs saw this as an opportunity to challenge traditional notions of 'time' and 'place'. While aspects of this new model of education might begin to emerge in the near-future, it's clear that access to

technology remains a sector-wide challenge. Data from this study supports wider research reporting challenges regarding the 'quality' of access pupils have to technology – focusing on a more nuanced perspective rather than a more binary question of whether students 'have access or not' (Williamson et al., 2020).

There were a number of limitations with this research. As the study was exploratory in nature with a limited sample size, the findings are not necessarily generalisable or representative of other CEOs or MATs. As previously discussed, CEOs leading MATs which are smaller or larger than those in this sample may report different observations and accounts of the use of technology during the COVID-19 pandemic. Research by Cullinane & Montacute (2020) suggests that school technology adoption and preparedness before the pandemic significantly affected teacher confidence and ability to transition to remote teaching when schools closed. Exploring perspectives from CEOs of MATs with deeper and more homogenous technology integration may produce different findings. The data collected captured the observations and perspectives of CEOs at the apex of their organisations and was not triangulated with or validated by data from students, teachers, headteachers, parents or board members within their organisations. Including other individuals across the MAT and using alternative research methods such as focus group interviews to validate, enrich and triangulate the data (McGarr & Kearney, 2009) may have produced different data.

Conclusion

"The worrying thing is we might forget this very rapidly. We know after these types of huge events – however much we say we will change – we don't. We wait a little, we forget and we go back to what we did before." – CEO, Multi-academy Trust 1

It is heartening to capture many observations and accounts from education leaders of very successful education provisions supported by technology during the COVID-19. These leaders should be proud of their staff and what they've achieved in exceptionally difficult circumstances. Along with these positive accounts, this study also uncovered the challenges which remain in the use of technology to support learning and teaching during the pandemic. Further research is needed to better understand aspects relating to the CEO MAT leadership decision-making and leadership dynamics, as well as the opportunities and challenges in 'live lessons' and remote learning provision. In addition, data from this research could provide a foundation for future quantitative research across a larger sample size of MAT CEOs to validate findings and draw more generalisable conclusions.

Declaration of interest statement

The author is pleased to provide the data of this study upon request.

This study was approved through the UCL Institute of Education ethics process and conducted in accordance with British Educational Research Association (BERA) guidelines. Participants were informed about the nature of the study, the use of the interview data and how that data was to be reported. Informed ethical consent protocols were accepted by each participant before commencing the interview. The data collection processes respected the privacy and data ownership of the interviewees. Participants were guaranteed confidentiality and privacy, including withholding their real names and any personal or organisational characteristics which could make them identifiable.

There are no conflicts of interest in the study.

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