Headteachers and the pandemic: Themes from a review of literature on leadership for professional learning in complex times

Deirdre Torrance, Denise Mifsud, Richard Niesche & Michael Fertig

Published online: 02 Jul 2023.

Submit your article to this journal 🗗

View related articles 🗗

View Crossmark data 🗗

Routledge
Taylor & Francis Group

ARTICLE

OPEN ACCESS

Check for updates

Headteachers and the pandemic: Themes from a review of literature on leadership for professional learning in complex times

Deirdre Torrance [a], Denise Mifsud [b], Richard Niesche [c] and Michael Fertig[d]

[a]Educational and School Leadership, School of Education, University of Glasgow, Glasgow, UK; [b]Educational Leadership, Management and Governance, Department of Education, University of Bath, Bath, UK; [c]Educational Leadership, School of Education, University of New South Wales, Sydney, Australia; [d]Department of Education, University of Bath, Bath, UK

ABSTRACT

This paper draws from a review of the global literature on school leadership during the first 30 months of the pandemic (2020–2022), when educational leaders were faced with complexity on an unprecedented scale. COVID-19 challenged school leadership, providing opportunities to reflect on: leadership practice within and beyond school contexts; building relationships with wider communities and external stakeholders; established bureaucratic systems and ways of working (Author et al. under review). School leaders' reliance on organisational stability, hierarchy and standardised practice was also challenged: reflective practice was needed, whilst responding to complex and demanding situations. Increased teacher autonomy and agency was encouraged and embraced, with 'profound collaboration borne out of necessity and urgency' (p. 393), highlighting the fluid practice of leadership rather than the role specificities of a leader. As school systems return to the business of in-person schooling and further away from the shock of the pandemic, the article renews calls to learn from experience and innovation. Three aspects are discussed, for supporting the development of school leadership/leaders capable of navigating complexity: school leadership; informal professional learning; formal professional learning. Our analysis provides insights into advancing professional learning approaches: accounting for complexity; enhancing teaching and learning; strengthening educator empowerment.

Introduction

The COVID-19 pandemic has had a significant, and ongoing, effect upon practically every facet of human behaviour. Education and schooling have been especially affected, with more than 1.5 billion young people of school age experiencing school lockdown from March 2020 (Organisation for Economic Cooperation and Development 2021). Many educators found themselves quickly needing to work remotely, devising learning activities which could be taught virtually (Schultz and Love 2022). As Aiello *et al.* (2023) have indicated: 'Interaction was to take place only virtually, the resources used had to be highly engaging digital artefacts, and a stable connection to the world wide web became the underpinning determinant to ensure equitable access to teaching

and learning' (p 1). The complex and pervasive nature of the pandemic, affecting educators both in their roles as teachers as well as in their personal lives, had significant impacts upon educational policies and the need for schools to comply with ever-changing government policies (Fotheringham *et al.* 2021). School leaders were caught in the maelstrom of political directives and guidance, having to interpret government pronouncements to be able to offer support to colleagues in relation to both educational practice and health (O'Toolee and Simovska 2022, Jabbari *et al.* 2023).

The impact of working and, indeed, teaching from home brought about significant changes in the relationship between school leaders and school colleagues and, also, between school educators and parents. School leaders found that there was a need either to strengthen already-formed alliances with other leaders or to forge new relationships with leaders of other schools (Arar *et al.* 2022). The move to online learning necessitated rapid changes in pedagogical practice and the development of new teaching skills for many educators (AlAjmi 2022). Through necessity, teacher leadership often developed through informal connections between teachers working within the same school, responding to the demands of the pandemic, enabling pedagogical change (Niu *et al.* 2022).

These changes require a deeper understanding of the complexities of school leadership and the implications for ongoing professional learning. In this paper, we draw from a review of the global literature on school leadership during the first 30 months of the pandemic (2020–2022), when educational leaders were faced with complexity on an unprecedented scale, to suggest that education systems around the globe need to resist a return to the status quo, and to reconceptualise school leadership, along with informal and formal professional learning for leadership in complex times. The article begins by considering ways in which the status quo was challenged, as the complexity of COVID-19 was navigated. A brief methodology section follows, explaining the process behind the identification of three concerns discussed in the proceeding sections: reconceptualising school leadership (Theme 1); reconceptualising informal professional learning (Theme 2a); reconceptualising formal professional learning (Theme 2b). The implications from our anaysis for professional learning are then discussed, before concluding the article by identifying key considerations for school leadership and for the professional learning of school leaders, designed to support the development of school leadership, capable of navigating complexity.

Navigating complexity which challenges the status quo

COVID-19 has challenged the status quo of education systems around the globe and with that, the governance of education, its leadership and the development of its leaders. The pandemic could be described as a 'wicked problem' in that the issues related to it 'transcend the borders of traditional policy domains, involve a wide variety of actors across different scale levels and resist our attempts to solve them' (Termeer *et al.* 2019, p. 167), or, as a 'wicked issue' with 'no algorithms to follow to solutions ... ill-understood or understood in multiple, perhaps conflicting, ways ... fundamentally complex in character' requiring 'thoughtfulness and decisions made that are contingent on particular circumstances, not algorithms' (Trowler 2012, p. 273 and p. 280). It took the pandemic to demonstrate alternative perspectives on schooling and school performance, interrupting performativity and established measures of education success (Netolicky 2020), previously perceived as essential in many education systems.

Supranational organisations have identified the opportunity to use the learning of alternatives gained during the pandemic, to think anew about what kind of education systems are fit for purpose and how they should be governed. The World Bank (2020) highlighted the compounding effect that the pandemic has had on widening inequalities, with particular reference to the education of girls and vulnerable groups, calling for countries across the globe to 'build back better, more resilient, and equitable education systems', with one of its identified priorities being to 'invest aggressively in teachers' professional development' (pp. 7–8). UNESCO (2020) highlighted the difficulties that centralised bureaucracies have when dealt with unexpected situations, alongside the ability for

educators, parents and their communities to respond with innovative and context relevant solutions.

Scholars have also called for a rethinking of public administration, with Azorín (2020) arguing that we can transform education, embedding collaborative networks emerging during the pandemic. Similarly, Chapman and Bell (2020, pp. 232–233) rally that, we must resist the temptation to revert to our previous ways of working and reset our education system by viewing some of the foundations that have been laid down during the pandemic as a catalyst to future-proof our education system, so that all children and young people can achieve their full potential irrespective of where they come from. Similarly, Sahlberg (2020, p. 364) asks: 'How can this social experiment help us to make bold and brave shifts in mindsets in how school systems would change? . . . School systems all over the world are still primarily operating according to the logic of consumption rather than of creation'. Ansell *et al.* (2020) call for administrative reform, more flexible and agile public institutions and programs, flatter, modularised, and easily integrated organisations 'to shift from standardised service production to the creation of innovative, scalable solutions that provide robustness' (p. 954), alongside the encouragement of experimentation to cope with turbulence, with an appreciation of the contribution that mistakes make to learning: 'Control-fixated administrative steering systems must give way to trust-based systems' (p954). Mifsud et al.'s (2021) systematic review of the COVID-19 literature, highlights the pandemic's challenge to established bureaucratic systems and ways of working, including the practice of school leadership. Branson and Marra (2022, p. 24) go further, asserting: 'The naked truth of the matter is that managerialism and a heathy organisational culture are unlikely bedfellows'.

School leaders' reliance on organisational stability, hierarchy and standardised practice has been challenged during the pandemic: reflective practice was needed, whilst responding to complex and demanding situations. Increased teacher autonomy and agency was encouraged and embraced, with 'profound collaboration borne out of necessity and urgency' (Netolicky 2020, p. 393), highlighting the fluid practice of leadership rather than the role specificities of a leader. Close and Raynor (2010, p. 219) contend that, 'A complexity perspective restores the relationship between agency and structure, and increases our understanding of this relationship'.

Methodology

The ideas for writing this article and the framework adopted, developed after conducting a systematic review of the school leadership literature exploring research trends, purposes and emerging concepts during the first two years of the global education response to COVID-19 (Mifsud et al. 2021). Our original systematic review used a conceptual framework developed by Hallinger (2013), adopted by others (for example, Gumus *et al.* 2018, Bellibas and Gumus 2019). This approach was combined with aspects from Oplatka and Arar's (Oplatka and Arar 2017) methodology in relation to the literature search procedure and data analysis. Scopus, Web of Science, ERIC, and Google Scholar were selected as the primary search engines for the electronic sourcing of publications. An advanced search for articles with all of the words 'leadership in the pandemic' between 2020 and 2022 anywhere within the article yielded 504,000 results. The search was then narrowed to key terms present only in the title of the publication, yielding a total of 314 results. The following search terms were used: 'school leadership' AND 'pandemic' OR 'covid-19'; 'educational leadership' AND 'pandemic' OR 'covid-19'; 'crisis leadership in schools'; 'crisis' OR 'pandemic' AND 'school leaders'; 'school principals' AND 'pandemic' OR 'covid-19'. Inclusion and exclusion criteria were then applied to further narrow the search and yield the sources and type of data satisfying the purpose of the review. The focus of empirical research had to encompass compulsory schooling from early childhood education to primary and secondary, thereby excluding both further and higher education. Journal articles and chapters were included, while theses, conference papers and grey literature were not considered. No minimum number of citations were required for inclusion purposes. English language peer-reviewed journals and book chapters

were included, thus ensuring exhaustive coverage in terms of depth and breadth in relation to researchers' academic career stages across the widest geographical distribution possible.

Two of the co-authors repeated the electronic searches for publications, comparing results at regular intervals, until they were confident that all likely sources had been exhausted, by striving to provide a comprehensive coverage of all the works published about pandemic school leadership in compulsory schooling between 2020 and 2022. Eighty publications from English language journals and books made up the collection of literature for this review. The next step involved reading all the publications to extract the relevant data for analysis and synthesis in response to the research questions. A narrative synthesis was conducted that 'explores heterogeneity descriptively rather than statistically and is appropriate for use with results from different types of empirical research' (Booth et al. 2012, p. 91). This allowed us to construct an initial framework of themes by content, according to the focus being addressed in the publication.

Our initial systematic literature review (Mifsud et al. 2021) revealed that the majority of published empirical research focused upon school leaders as individuals during the pandemic. This focus centred on three main areas: their individual response in terms of issues such as sensemaking; self-efficacy and stress; and their relationships with other colleagues within the school during the pandemic. Through the original systematic literature review, we identified three additional aspects which fell out with the scope of our first article: reconceptualising school leadership; reconceptualising informal and formal professional learning for leadership in complex times. We are delighted to have the opportunity to explore them in this PDiE article. A re-exploration of that literature and the inclusion of more recent publications, using the specific lens of leading in times of complexity, has demonstrated the need for the transformation or evolution of the headteachers'/principals' role. In particular, around four main aspects: the acquisition of new skills and attributes; a focus on digital leadership; a move towards community-centred school leadership; as well as embracing distributed forms of leadership that foster teacher leadership and autonomy, while navigating top-down bureaucracy.

Further reflection on the challenges faced by school leaders, in particular exploring how they can be better prepared for such crises in the future, and a review of new empirical research published subsequent to our original literature search, led to the identification – resulting from a thematic analysis using Clarke and Braun's (Clarke and Braun 2018) six-stage framework – of the specific aspects for discussion in this article. Three concerns are presented in the following sections: reconceptualising school leadership; reconceptualising informal professional learning for leadership in complex times; and reconceptualising formal professional learning for leadership in complex times.

Theme 1: Reconceptualising school leadership

Before COVID-19, there was already a body of scholars calling for the reconceptualisation of educational leadership asking, 'can we re-think leadership in our contemporary times?' (Eacott 2013, p. 115). With COVID-19 however, the risks lay with the status quo. At an early stage of the pandemic, Harris (2020) captured school leaders' sense of awe, how they were navigating complexity, along with the challenges facing leading professional learning in such complex times:

> COVID-19 has dramatically changed conceptions of leadership and leadership practices. While principals and headteachers are still leading their schools, they are doing so in ways that they could not have imagined several months ago. (p.324)

Educators already worked under complex circumstances pertaining to culture, relationships, and decision-making, including navigating various systems in the context of constant change and multiple challenges at both school and system levels (Arar 2020). However, the pandemic disrupted the education system globally, with school leaders' perspectives shifting as they became open (and encouraged) to trying new modalities and skills, such as using digital tools. They also became more

flexible in developing new and/or enhanced leadership practice, such as digital instructional/ technological leadership (Yildaz Sal and Gocen 2022) including visionary leadership, excellence in professional practice, digital age learning culture, digital citizenship, and systemic improvement.

This review of the literature on school leadership during the first 30 months of the pandemic identified key themes around the reconceptualisation of leadership, namely: shifts towards more community centred leadership; crisis management; a new reliance on teacher agency with the shift to online learning platforms and engagement with students and parents; and calls for more forms of adaptive leadership. Previously, educators' perspectives mainly revolved around their actions within the micro and meso levels (Arar *et al.* 2022). The outbreak of the pandemic and the ensuing school closure periods called for school leaders to become 'key figures for their communities' (Longmuir 2021, p. 7). They felt the need to support students, teachers, and parents; developing an increased awareness of state, national and international developments; considering how these could be understood for their school communities. This shift in focus required them to be available, calm, and stable, presenting a resilient demeanour. Headteachers 'moved quickly from accountability-based instructional leadership to community leadership' (Reyes-Guerra *et al.* 2021), providing an opportunity to rethink their roles outside of the school boundaries, recognising the important function schools play in students' and families' lives. In other words, 'the pandemic allowed an aperture for school leaders to enter and learn more details about the conditions that were exacerbated by COVID-19 for communities' (Alvarez Gutiérrez *et al.* 2022, p. 8). For example, leaders of rural schools perhaps needed greater organisational compassion (Lasater *et al.* 2022), using elements of social capital within rural communities and external support agents to address particular challenges (White *et al.* 2022).

Further, headteachers resorted to crisis management within complex, unprecedented situations, operating within national cultures, pressures, and directions. Banerjee-Batist *et al.* (2022) identify the crisis management phases school leaders went through in the USA and India, with implications for decision-making: signal detection; preparation and prevention; damage containment; recovery; learning and reflection. This led to a re-thinking of key competences around: sensemaking; perspective taking; issue selling; organisational agility; creativity; risk taking; decision-making under pressure; promoting organisational resiliency; acting with integrity; learning orientation; as well as leader and institutional traits and values. Gurr and Drysdale (2020a) further explore this notion of crisis leadership – and the accompanying skillsets and attributes required by school leaders to navigate through such times – presenting a seven leadership-in-uncertain-times domain model (see also Okilwa and Barnett 2021, Reyes-Guerra *et al.* 2021).

Arguably, the new modus operandi of school leadership triggered by the pandemic is 'distributed, digital, networked, and dependent on technological infrastructure' (Harris and Jones 2022, p. 107). This contributes indirectly to fostering teacher leadership if the ways of using digital leadership in the classroom are improved and promoted, by empowering and enlightening teachers on such matters (AlAjmi 2022). Indeed, COVID-19 provided a unique opportunity for teacher leadership to develop as teachers played a vital role in the transition from in-person learning to remote learning during the school closure period (Babbar and Gupta 2021):

> Moving away from a focus on measured performance, surveillance and compliance has led to increased teacher autonomy. Leadership is not a title but an action, a behaviour, a practice, a doing and a way of being, and the current scenario has provided a crucible for teacher agency, agility, resilience and innovation. (Netolicky 2020, p. 392)

Teacher leadership inadvertently developed, as it was the teachers themselves who had to find teaching and learning solutions for their students within their particular national, local, school and classroom contexts. Consequently, the pandemic-induced approach to school leadership included a new reliance on teacher agency, due to remote teaching and learning with the help of technology, requiring more adaptive leadership in determining the changes required while re-thinking how organisations can adapt and flourish.

The COVID-19 crisis also called for more forms of adaptive leadership, 'adjusting top-down authority relationships aimed at ensuring schools' compliance with a shared leadership agenda' (Ganon-Shilon *et al.* 2022). Previous conceptions of leadership were challenged, with the literature calling for leadership capable of adapting to emergent problems – less problematic within established collective leadership (Ansell *et al.* 2020) – with the benefits of collaboration, empowerment, and shared decision-making (Coquyt 2021). Adaptive leadership requires enhanced attributes relating to being innovative, transformative and forward-thinking; predicting obstacles; and implementing viable solutions while leveraging change leadership (Bagwell 2020, Doll *et al.* 2021, Wharton-Beck *et al.* 2022). In that regard, Gurr and Drysdale (2020b, 2020a) argue for responsive leadership, where there is a clear sense of direction but also flexibility to respond to changes in the environment.

Throughout the pandemic, school leaders navigated multiple tensions simultaneously, between autonomy and accountability, well-being, and workload (Netolicky 2020), further adding to the complexity of the unprecedented and unpredictable situation. School leaders changed 'from being authors to being translators and enactors of policy, producing a feeling of lack of control in some cases' (Fotheringham *et al.* 2021, p. 16). Arguably, the headteacher became 'a bureaucrat who merely carried out orders from the Ministry' (Constantia *et al.* 2021, p. 5). This is in stark contrast to contemporary understandings of good practice in leading schools. Stone-Johnson and Weiner (2020) thus reiterate the importance of recognising headteachers' autonomy and expertise, without the need to be dictated to by state mandates on their interpersonal and instructional work. Concomitantly, Hermawati *et al.* (2020) describe headteachers as having had a 'shepherd leadership role' (p. 225) due to their contribution to increasing trust, work motivation, and commitment. In navigating the complexity of the pandemic, leaders in many countries experienced enhanced expectations without prior experience to draw from.

The pandemic serves as an opportunity to rethink the focus of schooling, by giving importance to teachers' professional capital, knowledge, and skills, while including them in the decision-making and communication process to foster effective collaborative networks that include all the stakeholders in the teaching and learning process (Hollweck and Doucet 2020, p. 1). Providing empowerment and inspiration for teachers (Niu *et al.* 2022) is the way forward for increased teacher autonomy. In the next section, we identify key implications from the pandemic literature for formal and informal professional learning through the pandemic.

Theme 2: Reconceptualising professional learning for leadership in complex times

COVID-19 provides the challenge and opportunity to reimagine the role of educational leaders, in parallel with reconsidering their professional learning needs (Rincones *et al.* 2021). Further, as Oplatka and Crawford (2022) highlight, there is another imperative for taking this opportunity:

> No one knows whether COVID-19 is a sole phenomenon or the first pandemic in a series of pandemics. Therefore, it is necessary to prepare educational leaders and teachers for emergencies, in general, and for management of themselves and others during emergencies, in particular. Special attention should be given to the means by which leaders can minimise feelings of emotional distance and increase a sense of emotional closeness among teachers even in times of school closure. (p. 169)

In this section, we draw from the international literature to explore significant aspects of informal and formal professional learning for leadership in complex times.

Theme 2a: Informal professional learning for leadership in complex times

A factor which had significant impact upon the nature of school leadership during the pandemic was the unpredictability of events and the consequent disruption of 'the established, predictable routines and plans which [school leaders] rely on to create a sense of order and progressive

improvement across the school' (Greany *et al.* 2021, p. 28). In addition, the 'working from home' nature of teaching and learning practice during the pandemic enhanced the development of teacher leadership, as teachers responded to the complex demands of schooling brought about by COVID-19, essentially through informal working relationships (Berry *et al.* 2020). Teachers were trusted to make decisions and act, like never before. And with this, their informal professional learning was very different. They were learning in situ, responding as best they could to unprecedented change and new (digital) pedagogy.

For teachers in formal leadership roles, the complexity of the ongoing pandemic also meant that models of leadership development and professional learning which rely upon advanced-planning and workshop-style engagement were also inappropriate to support them with the reactive demands of COVID-19. As a result, leadership learning took on increasingly informal aspects. From the literature, these can be characterised as follows: developments in working relationships with school colleagues; an increase in connections with other school leaders; greater involvement with parents; increased involvement with community stakeholders e.g. health, social services networks; and, the opportunities for the increased embedding of teacher leadership within school communities. This meant that formal school leaders had to further entrust teachers with a transferring of agency to teachers like never before.

Professional learning was also challenged through the ways in which relationships between colleagues developed as the pandemic progressed, as virtual forms of communication expanded. Despite this, as the study of school leaders in England (Greany *et al.* 2021) highlighted, increased teamwork was key: 'Many heads had valued the support of their senior team in particular and/or had enjoyed seeing talented members of staff take on additional challenges, through which they had grown and developed as leaders' (p 12). This was also reflected in a study of Norwegian school leaders which indicated ' . . . that leaders were able to build on heightened feelings of community among teachers' (Jones *et al.* 2021, p. 276). Further evidence of this renewed focus upon wide-ranging in-school collegiality was found in an analysis of leadership practices within a small sample of school leaders in Poland. Here, Madalińska-Michalak (2021) found that building a collaborative culture and motivating colleagues were core elements. The study by Virella (2022) also reinforces this important aspect of informality in the school leadership process, as does the research carried out across five Arab countries by Arar *et al.* (2022) into school leaders' perspectives during the pandemic. The flattening of leadership school structures highlighted in these studies, provided a seedbed for developing and acknowledging the significance of teacher leaders (Chaaban *et al.* 2022).

Informal networks of headteachers across institutions also took on an increased relevance and significance during the pandemic, serving as an expanding avenue for informal collaboration and support across schools. This was seen to be especially relevant in those policy environments where central government directives needed rapid and focused interpretation prior to implementation. The situation in England during the pandemic provides a clear example of the tensions emanating from an environment in which policy changes were coming from the Department for Education almost daily, with news of health initiatives emerging through nightly news conferences. As a result, as Greany *et al.* (2021) found:

> a majority of headteachers drew on networks with other local schools and/or with colleague headteachers for emotional as well as practical support through the pandemic. Many of these networks were well-established before the pandemic, but several heads reported that local collaboration between schools and with the local authority increased during the crisis. This strengthening of local networks enabled collective decision-making and coordinated action in the face of government guidelines that were often unclear or open to varied interpretation. (e.g. face coverings) (p 13)

Similarly, the study of leaders within a group of schools in Melbourne by Sum (2022) identified the formation of horizontal leadership relationships across schools as a key factor in strengthening leadership responses to the demands of the pandemic.

The introduction and development of home schooling in many education jurisdictions was unprecedented, propelling the relationship between school and home into clearer perspective. Inequities in access to online learning tools, already evident to many school leaders, were exacerbated by the daily demands of virtual learning. As Dorner *et al*. (2022) indicated, school leaders faced the challenge of mobilising human and instructional resources in support of children learning at home through creating, and enhancing, strong communication channels with families. Gonzales *et al*. (2022) found in their study of school leadership preparation programmes, that the strengthening of school and community partnerships, especially with parents, was a key factor in alerting school leaders (and, indeed, classroom practitioners), to the issues faced by their pupils in the home learning environment. The development of informal communication channels between school leaders and the home was also highlighted in a study of COVID-19 experiences in Pakistan (Naseem *et al*. 2022), which emphasised the importance of school leaders making possible clear support networks for pupils and parents, in order to ensure that significant home learning took place. As Bradbury *et al*. (2022) suggest, this was: 'a response to policy which is both coping (and reactive rather than proactive) but also agentic, demonstrating a commitment to children's welfare and a belief in the power of schools to make a difference' (p 17). Overall, the gradual dissolving of the boundaries between home and school brought about by the exigencies of the pandemic necessitated informal professional learning amongst school leaders, as well as among those educators engaged directly with pupils.

A noticeable thread in studies within this area highlights the impact of home learning during the pandemic upon the development of the professional capital of classroom educators (Hollweck and Doucet 2020). The diffuse nature of school communities brought about by COVID necessitated much of this taking place informally and without forward planning or forewarning. Chaaban *et al*. (2022), in their study of the impact of the pandemic in Qatar, found that 'many teachers embraced school-wide leadership roles and responsibilities in addition to their assigned classroom duties without any introduction, let alone formal appointment' (p 428). As a result, they argued, 'the agentic role of teachers as gatekeepers of critical learning opportunities' (p 440) was enhanced. The emerging significance of teacher leadership was further delineated in the study by Berry *et al*. (2020), which looked at the impact of COVID-19 across a range of educational jurisdictions: 'Teacher leaders are finding ways to incubate novel pedagogical and policy ideas, test them for effectiveness, pivot when needed, and spread them to their colleagues' (p 11). In summary, this study and others (e.g. Hollweck and Doucet 2020), suggests that the pandemic offered an opportunity to broaden the range of educational leadership, horizontally rather than vertically in school hierarchies.

Alongside fostering increasingly strong relationships with parents, many school leaders (both formal and informal) found that the ever-changing demands of the pandemic necessitated them seeking closer informal links with key stakeholder groups in health and social welfare: on strategic levels regarding health policy enactments, and the need for clear guidance from health and welfare professionals; on more functional levels regarding the welfare of individual pupils. This became a key element of informal professional networking. For example, the study by Greany et al. (op cit) identifies the importance of the Local Authority's Public Health Team for many headteachers in England. This focus on health issues was also evident in Melbourne, where respondents identified 'the additional load on school leaders to be responsible for the health and wellbeing of teachers, school staff, students and their families (Sum 2022, p. 195).

The complex demands brought about by the need to continue schooling and education during the pandemic threw extant models of school leadership into sharp relief. A significant factor here has been what Jarvis and Mishra (2020) have called 'a recategorisation of schools from technical-rational organisations to communities . . . occasioning a de facto shifting of power from single to multiple centres, as well as a growth in the space for informal leadership at different levels' (p 4). Additionally, many of the studies cited focus upon the ways in which informal relationships supported a move towards what Lien *et al*. (2022) have called 'more adaptive and distributed

leadership structures based on mutual trust to support individual and organisational resilience' (p 2). This emphasises the need for increasingly agile school leadership, with clear implications for formal professional learning, both for those in recognised leadership positions as well as for teacher leaders working directly with pupils.

Theme 2b: Formal professional learning for leadership in complex times

Babbar and Gupta (Babbar and Gupta 2021) highlight the crippling global effects of COVID-19, which 'engulfed various countries abruptly and the education sector with no prior preparation' (p. 477). Early research and literature into the pandemic (2020–2021) unsurprisingly focused largely on understanding how schools and school leadership navigated the complexity of COVID-19 and to a lesser extent, the informal professional learning associated with that. More recent research (2022 and onwards) has begun to consider the role of formal professional learning and its importance for preparing school leaders both for future crises and for working with complexity more generally. This special journal issue of Professional Development in Education - *Leading Professional Learning to Navigate Complexity* – makes a significant contribution to that body of work. Much of this more recent literature explores the need for different kinds of professional learning in the wake of the pandemic, rather than the need for more or additional professional learning, or even for the need for professional learning itself. In examining the research literature related to formal professional learning, four main themes emerged which are explored in this section: crisis management and leadership; digital technologies/remote learning; developing teacher leadership and wellbeing; and a focus on equity issues.

Several researchers have drawn from the COVID-19 pandemic to argue that this current moment marks an opportunity to re-think and take stock of education in terms of its purpose; arguing for flexible and innovative design going forward (for example: Rincones *et al.* 2021, Furlong and Spina 2022, Yildaz Sal and Gocen 2022). Underlying much of the research and identified topics for school leaders' professional learning concerns dealing with complexity. This builds upon the work of scholars such as Eacott (2011), arguing for headteachers to accept and engage with ambiguity and complexity in relation to the different cultural, social, historical, and political forces at play in each school context. What is new, is the range of authors and countries advocating for this concern. Arar *et al.* (2022) argues for understanding complex environments using examples from the Arab world and many countries that have experienced numerous crises for decades. As such, crisis management has become a key focus since the start of the pandemic, with the need for addressing this in formal leadership preparation programs. For example: Kafa (2021) has developed a conceptual framework of a range of leadership competencies for times of crisis and uncertainty; Boin *et al.* (2013) had previously developed a framework for assessment of leadership in times of crisis, consisting of a range of executive tasks. Such programs need to be cognisant of different cultural contexts (Arar *et al.* 2022), supporting school leaders' sense-making and perspective-taking and design strategies, perhaps using scenario-based training (Banerjee-Batist *et al.* 2022). Communication and cultural appropriate guidance and learning must be central to these programs, a key theme when looking beyond Western education contexts.

Professional learning related to digital technologies and remote learning also emerged as an important area of research. With the rapid shift to online learning platforms and other digital technologies, it is not surprising that this is an area of concern – linked to issues of access and equity as previously discussed. Researchers such as Forrester *et al.* (2021) argue that government strategies such as lockdowns have shown the need for ongoing formal professional learning to upskill teachers (including those beginning their teaching careers) to 'cultivate a high level of digital literacy and the promotion of innovative practices' (p. 11). Similarly, Furlong and Spina (2022) argue that this shift towards the need for professional learning has increased with the pivot to forms of online and blended learning. This professional learning is not just for teachers. There is a need for formal leaders, including headteachers, to undertake formal professional learning in establishing and

setting up remote systems and structures as technology leaders (see Harris 2020, AlAjmi 2022, Gonzales *et al.* 2022).

Issues of equity are of longstanding significant interest to educators and researchers. However, the onset of the pandemic presented these issues more starkly, intensifying existing disparities (Netolicky 2020). The challenge then, is to take account of these equity issues as a part of formal professional learning for school leaders. Niu *et al.* (2022) make a case for formal equality, diversity and inclusion training to: better help and support teachers; as well as develop leadership skills with a focus on empowerment, communication, and building trust. Gonzales *et al.* (2022) also highlight similar needs for the development of equitable school leaders, calling for: an explicit focus in leadership preparation and training; with the inclusion of 'knowledge and skills for allocating and distributing resources equitably, collaborating effectively with the school community, and establishing a pipeline of administrators of colour' (p. 99).

Teacher leadership was also identified, both as a key factor during the pandemic with the shift to remote and online learning platforms in many counties; and, as an issue that requires further professional learning to facilitate support for teachers and for headteachers in their own leadership practices. Chaaban et al. (2002) makes the case for a coherent strategy for the support of teachers' professional learning and collaboration, rather than teacher leadership providing a 'patchwork solution' during times of crisis. In so doing, sustainable practices for future crises would lead to the development and support of teachers as leaders in their agentic capacity (Chaaban *et al.* 2002) and in practices that support digital literacy and innovation (Doll *et al.* 2021, Forrester *et al.* 2021). Brooks *et al.* (2022) argue for the need for headteachers to also focus on factors that lead to teachers' stress and burnout, as the lack of leadership support during the pandemic was seen as a source of stress and anxiety for teachers. As a result, they argue, fostering teacher care and wellbeing should be built in to school management policy and processes, as well as formal leadership preparation and learning (also see Al-Fadala *et al.* 2021).

Conclusion: Implications for professional learning

Pre-pandemic, the world experienced increasing complexity, encouraging new ways of thinking generally and more specifically, in relation to leadership (Uhl-Bien 2021). However, COVID-19 challenged school leaders and policy makers in new ways, with specific regard to previous conceptions of what determines a crisis (Hulme *et al.* 2021). The pandemic also challenged previous conceptions of 'crises management', revealing the complexities of dealing with the unexpected on such a scale. The rapid transition to online learning platforms provided a clear illustration of this, and of significant inequalities in provision and experience within and across countries. With this, the inadequacies of traditional centralised bureaucracies have been highlighted, not sufficiently light of foot (Boin *et al.* 2013), with the need for schools and their communities to work together to identify and address their context specific needs, putting effective crisis management measures in place (UNESCO 2020). The COVID-19 pandemic also challenged previous conceptions of leadership in crisis management, for which limited data was available to guide those in leadership roles. Navigating and leading through such complexity is new territory that we have much to learn from if researchers and scholars are prepared to think critically about their pre-existing attitudes towards leadership and prescriptive models designed out of times of crisis.

The all-embracing nature of COVID-19, together with the volatility, uncertainty, complexity, and ambiguity (VUCA) of the pandemic (Sum 2022) and its impact upon schools, has placed continuous pressure on school leaders to engage with informal professional learning. In many ways, the pandemic served to accelerate changes which were already underway in many education systems, such as the digitalisation of teaching and learning (Zancajo *et al.* 2022), requiring significant upskilling for many practitioners. The reality of

schooling at home through online teaching and learning, the erosion of unscheduled face-to -face contact and the loss of spontaneity in relationships between educator colleagues, resulted in an expansion of school leaders' zones of activity. This led to what Sum (2022) calls 'leading up and across ambiguous professional relationships' (p 196), as well as an increased involvement of school leaders with community and parental stakeholders (Dorner *et al.* 2022).

The COVID-19 pandemic also provides an opportunity to reconsider how to support formal leadership development to anticipate, understand and lead through complexity (Rincones *et al.* 2021). The pandemic has challenged established norms for professional learning, developing new (or less comprehensively used) online ways of engaging with professional educators, having the potential to be more accessible and flexible. Digital learning for staff and pupils became an essential prerequisite for communication and learning. Norms of engaging with school communities have also been challenged with greater access to teaching and learning processes, as well as greater awareness of the reciprocal support that educators and parents/carers can provide for learning processes and for meeting wider community needs. So too have established networks, with teachers (formal and informal school leaders) expanding the reach or focus of existing networks, as well as developing new networks responsive to new needs. Headteachers have been challenged to adapt well-honed styles of leadership and management, adapting to emergent problems, dependent on collaborative endeavour, with an emphasis on the horizontal rather than the hierarchical (Ansell *et al.* 2020, Lien *et al.* 2022). The flattening of leadership school structures highlighted in these studies, provided a seedbed for developing and acknowledging the significance of teacher leaders (Berry *et al.* 2020, Hollweck and Doucet 2020, Chaaban *et al.* 2022). Increased teacher autonomy and agency was encouraged and embraced (Netolicky 2020, p. 393), with leadership needing to become more fluid, agile and responsive. If this is what is required of leadership for professional learning in complex times, then leadership preparation programmes will also need to adapt. Professional Development in Education and this special journal issue, *Leading Professional Learning to Navigate Complexity*, make a valuable contribute to that discussion.

School leaders' reliance on organisational stability, hierarchy and standardised practice has been challenged during the pandemic, with 'control-fixated administration' giving way to 'trust-based systems' (Ansell *et al.* 2020, p. 954). Overnight, the previously inconceivable became possible, demonstrating that organisations can adapt and flourish; with complexity perspectives restoring the relationship between agency and structure (Close and Raynor 2010). If, as UNESCO (2020, p. 24) asserts 'Education needs to be at the heart of a post-Covid world. For that future we need boldness of thought and courageous action now', then education systems around the globe will need to resist a return to the status quo, to reconceptualise school leadership, along with informal and formal professional learning for leadership in complex times. Our analysis provides insights into advancing professional learning approaches that: account for complexity; enhance teaching and learning; and strengthen educator empowerment.

Disclosure statement

ORCID

Deirdre Torrance ⓘ http://orcid.org/0000-0002-9223-6701
Denise Mifsud ⓘ http://orcid.org/0000-0001-6330-4528
Richard Niesche ⓘ http://orcid.org/0000-0001-9621-0712

References

Aiello, P., *et al.*, 2023. Identifying teachers' strengths to face COVID-19: narratives from across the globe. *Cambridge Journal of Education*, 53 (3), 1–18. doi:10.1080/0305764X.2022.2159013.

AlAjmi, M.K., 2022. The impact of digital leadership on teachers' technology integration during the COVID-19 pandemic in Kuwait. *International Journal of Educational Research*, 112, 1–10. doi:10.1016/j.ijer.2022.101928

Al-Fadala, A., *et al.*, 2021. *Rwanda learning partnership: insights on school and system leadership during COVID-19.* Reading: Education Development Trust. https://files.eric.ed.gov/fulltext/ED615112.pdf.

Alvarez Gutiérrez, L.A., *et al.*, 2022. Community-centered school leadership: radical care and aperturas during COVID-19. *AERA Open*, 8 (1), 1–14. doi:10.1177/23328584221096465.

Ansell, C., Sørensen, E., and Torfing, J., 2020. The COVID-19 pandemic as a game changer for public administration and leadership? The need for robust governance responses to turbulent problems. *Public Management Review*, 23 (7), 949–960. doi:10.1080/14719037.2020.1820272.

Arar, K., *et al.*, 2022. School leaders' perspectives towards leading during crisis through an ecological lens: a comparison of five Arab countries. *Journal of educational administration and history*, 54 (2), 123–142. doi:10.1080/00220620.2021.1957793.

Azorín, C., 2020. Beyond COVID-19 supernova. Is another education coming? *Journal of Professional Capital & Community*, 5 (3/4), 381–390. doi:10.1108/JPCC-05-2020-0019.

Babbar, M. and Gupta, T., 2021. Response of educational institutions to COVID-19 pandemic: an inter-country comparison. *Policy Futures in Education*, 20 (4), 469–491. doi:10.1177/14782103211021937.

Bagwell, J., 2020. Leading through a pandemic: adaptive leadership and purposeful action. *Journal of school administration research and development*, 5 (S1), 30–34. doi:10.32674/jsard.v5iS1.2781.

Banerjee-Batist, R., *et al.*, 2022. Leadership response to COVID-19: a comparative analysis of the education sector in USA and India. *Human Resource Development International*, 25 (3), 321–341. doi:10.1080/13678868.2022.2073119.

Bellibas, M.S. and Gumus, S., 2019. A systematic review of educational leadership and management research in Turkey: content analysis of topics, conceptual models, and methods. *Journal of Educational Administration*, 57 (6), 731–747. doi:10.1108/JEA-01-2019-0004.

Berry, B., Doucet, A., and Owens, B., 2020. *Teacher leadership in the aftermath of a pandemic: the now, the dance, the transformation.* Independent report. Educational International, Brussels.

Boin, A., Kuipers, S., and Overdijk, W., 2013. Leadership in times of crisis: a framework for assessment. *International Review of Public Administration*, 18 (1), 79–91. doi:10.1080/12294659.2013.10805241.

Booth, A., Papaioannou, D., and Sutton, A. 2012. *Systematic approaches to successful literature review.* Thousand Oaks, CA: Sage.

Bradbury, A., *et al.*, 2022. Crisis policy enactment: primary school leaders' responses to the Covid-19 pandemic in England. *Journal of Education Policy*, 1–21. doi:10.1080/02680939.2022.2097316.

Branson, C.M. and Marra, M., 2022. *A new theory of organizational ecology, and its implications for educational leadership.* London: Bloomsbury Academic.

Brooks, M., Creely, E., and Laletas, S., 2022. Coping through the unknown: school staff wellbeing during the COVID-19 pandemic. *International Journal of Educational Research Open*, 3, 1–9. doi:10.1016/j.ijedro.2022.100146

Chaaban, Y., Sawalhi, R., and Du, X., 2022. Exploring teacher leadership for professional learning in response to educational disruption in Qatar. *Professional Development in Education*, 48 (3), 426–443. doi:10.1080/19415257.2021.1973070.

Chapman, C. and Bell, I., 2020. Building back better education systems: equity and COVID-19. *Journal of Professional Capital & Community*, 5 (3/4), 227–236. doi:10.1108/JPCC-07-2020-0055.

Clarke, V. and Braun, V., 2018. Using thematic analysis in counselling and psychotherapy research: a critical reflection. *Counselling & Psychotherapy Research*, 18 (2), 107–110. doi:10.1002/capr.12165.

Close, P. and Raynor, A., 2010. Five literatures of organisation: putting the context back into educational leadership. *School Leadership & Management*, 30 (3), 209–224. doi:10.1080/13632434.2010.485182.

Constantia, C., *et al.*, 2021. The Impact of COVID-19 on the Educational Process: the Role of the School Principal. *Journal of Education*, 1–8. doi:10.1177/00220574211032588.

Coquyt, M., 2021. Self-evaluation of educational leadership practices during COVID-19. *The interactive journal of global leadership and learning*, 2 (1), 1–54. doi:10.55354/2692-3394.1025.

Doll, K., *et al.*, 2021. Adapting and enduring: lessons learned from international school educators during COVID-19. *Journal of Research in International Education*, 20 (2), 114–133. doi:10.1177/14752409211034399.

Dorner, L.M., Harris, K., and Willoughby, B., 2022. Policy enactment during a pandemic: how one school responded to COVID-19 in negotiation with a nonprofit partner. *AERA Open*, 8 (1), 1–16. doi:10.1177/23328584221078328.

Eacott, S., 2011. Leadership strategies: re-conceptualising strategy for educational leadership. *School Leadership & Management*, 31 (1), 35–46. doi:10.1080/13632434.2010.540559.

Eacott, S., 2013. Rethinking 'leadership' in education: a research agenda. *Journal of educational administration and history*, 45 (2), 113–125. doi:10.1080/00220620.2013.768971.

Forrester, G., *et al.*, 2021. Living and learning through lockdown: a fictionalisation of the challenges and opportunities of homeschooling during a global pandemic. *Education*, 51 (4), 3–13. doi:10.1080/03004279.2021.1988674.

Fotheringham, P., *et al.*, 2021. Pressures and influences on school leaders navigating policy development during the COVID-19 pandemic. *British educational research journal*, 1–27. doi:10.2139/ssrn.3642919.

Furlong, D.M. and Spina, C.M., 2022. Holistic Professional Learning in Times of Crisis. In A. Wilmot, C. Thompson, Eds. *Handbook of Research on Activating Middle Executives' Agency to Lead and Manage During Times of Crisis*. Hershey PA: IGI Global 274–302. doi:10.4018/978-1-6684-4331-6.ch011.

Ganon-Shilon, S., *et al.*, 2022. Inclusive leadership in times of COVID-19 crisis: the role of district and school leaders in fostering school sense-making processes within a national inclusion and integration reform. *Leadership and policy in schools*. doi:10.1080/15700763.2022.2052907.

Gonzales, M.M., Roberts, M.B., and Tegano, S., 2022. School leadership during COVID-19: implications for school leadership preparation programs. *Journal of school administration research and development*, 7 (2), 93–102. doi:10.32674/jsard.v7i2.3838.

Greany, T., *et al.*, 2021. *Leading in lockdown: research on school leaders' work, wellbeing and career intentions*. Nottingham: University of Nottingham. https://file:/Users/deirdre/Downloads/LeadinginLockdownFinalReport.pdf.

Gumus, S., *et al.*, 2018. A systematic review of studies on leadership models in educational research from 1980 to 2014. *Educational Management Administration and Leadership*, 46 (1), 25–48. doi:10.1177/1741143216659296.

Gurr, D. and Drysdale, L., 2020a. Leadership for challenging times. *International Studies in Educational Administration*, 48 (1), 24–30.

Gurr, D. and Drysdale, L., 2020b. Leadership for challenging times: lessons from the past and capabilities for the future. *Australian Educational Leader*, 42 (3), 28–31.

Hallinger, P., 2013. A conceptual framework for systematic reviews of research in educational leadership and management. *Journal of Educational Administration*, 51 (2), 126–149. doi:10.1108/09578231311304670.

Harris, A., 2020. COVID-19—school leadership in crisis? *Journal of Professional Capital & Community*, 5 (3/4), 321–326. doi:10.1108/JPCC-06-2020-0045.

Harris, A. and Jones, M., 2022. Leading during a pandemic–what the evidence tells us. *School Leadership & Management*, 42 (2), 105–109. doi:10.1080/13632434.2022.2064626.

Hermawati, O., Santosa, E., and Bernarto, I., 2020. The effectiveness of shepherd leadership and trust in the school on teacher's work motivation and commitment to the school during the COVID-19 pandemic. *Veritas: Jurnal teologi dan pelayanan*, 19 (2), 215–227. doi:10.36421/veritas.v19i2.407.

Hollweck, T. and Doucet, A., 2020. Pracademics in the pandemic: pedagogies and professionalism. *Journal of Professional Capital & Community*, 5 (3–40), 295–305. doi:10.1108/JPCC-06-2020-0038.

Hulme, M., *et al.*, 2021. Collaboration in times of crisis: leading UK schools in the early stages of a pandemic. *Leadership and policy in schools*, 22 (1), 1–20. doi:10.1080/15700763.2021.1917623.

Jabbari, J., *et al.*, 2023. COVID-19 safety concerns, school governance models, and instructional modes: an exploration of school quality perspectives during the pandemic. *Journal of School Choice*, 17 (2), 1–36. doi:10.1080/15582159.2022.2164153.

Jarvis, A. and Mishra, P.K., 2020. Leadership for learning: lessons from the great lockdown. *International Journal of Leadership in Education*, 1–16. doi:10.1080/13603124.2020.1862920.

Jones, M.A., *et al.*, 2021. Crisis as opportunity: experiences of Norwegian school leaders during the COVID-19 pandemic. *Education in the North*, 28 (3), 274–292.

Kafa, A., 2021. Advancing school leadership in times of uncertainty: the case of the global pandemic crisis. *Leading & Managing*, 27 (1), 37–50.

Lasater, K., *et al.*, 2022. Compassion: the legacy of the pandemic in rural schools and communities. *Journal for Multicultural Education*, 16 (1), 43–54. doi:10.1108/JME-08-2021-0151.

Lien, C.M., Khan, S., and Eid, J., 2022. School principals' experiences and learning from the Covid-19 pandemic in Norway. *Scandinavian Journal of Educational Research*, 67 (5), 1–16. doi:10.1080/00313831.2022.2043430.

Longmuir, F., 2021. Leading in lockdown: community, communication and compassion in response to the COVID-19 crisis. *Education management and administration and leadership*, 1–17. doi:10.1177/17411432211027634.

Madalińska-Michalak, J., 2021. Successful school leadership in times of COVID-19 pandemic: fostering resilience in teachers and schools in Poland. *Labor et educatio*, 9, 83–101. doi:10.4467/25439561LE.21.006.15360.

Mifsud, D., *et al.* 2021. School leadership in the pandemic: a literature review of research trends, purposes and emerging concepts in the global education response to COVID-19.

Naseem, A., *et al.*, 2022. School teachers and principals' experiences during COVID-19 in Pakistan. *Journal of liberal arts and human sciences*, 1 (1), 32–45.

Netolicky, D.M., 2020. School leadership during a pandemic: navigating tensions. *Journal of Professional Capital & Community*, 5 (3/4), 391–395. doi:10.1108/JPCC-05-2020-0017.

Niu, Y., *et al*., 2022. Educational leadership support for work transitions during COVID-19: perceptions of K-12 teachers in United States and China. *Human Resource Development International*, 25 (3), 360–380. doi:10.1080/13678868.2022.2072700.

Okilwa, N.S.A. and Barnett, B.G., 2021. Strategies and practices of leading schools during the current Covid-19 crisis. *International Studies in Educational Administration*, 49 (3), 61–81.

Oplatka, I. and Arar, K., 2017. The research on educational leadership and management in the Arab world since the 1990s: a systematic review. *Review of Education*, 5 (3), 267–307. doi:10.1002/rev3.3095.

Oplatka, I. and Crawford, M., 2022. Principal, let's talk about emotions: some lessons COVID-19 taught us about emergency situations and leadership. *International Journal of Leadership in Education*, 25 (1), 162–172. doi:10.1080/13603124.2021.2014981.

O'Toolee, C. and Simovska, V., 2022. Same storm, different boats! The impact of COVID-19 on the wellbeing of school communities. *Health education*, 122 (1), 47–61. doi:10.1108/HE-02-2021-0027.

Reyes-Guerra, D., *et al*., 2021. Confronting a compound crisis: the school principal's role during initial phase of the COVID-19 pandemic. *Frontiers in Education*, 6 (9617875), 1–14. doi:10.3389/feduc.2021.617875.

Rincones, R., Peña, I., and Canaba, K.C., 2021. A call for rethinking schooling and leadership in the time of COVID-19. *Frontiers in Education*, 5 (618075). doi:10.3389/feduc.2020.618075.

Sahlberg, P., 2020. Will the pandemic change schools? *Journal of Professional Capital & Community*, 5 (3/4), 359–365. doi:10.1108/JPCC-05-2020-0026.

Schultz, S. and Love, K., 2022. How COVID-19 pandemic experiences can inform teacher education and professional development practices. *Global Education Review*, 9 (3), 38–57.

Stone-Johnson, C. and Weiner, J.M., 2020. Principal professionalism in the time of COVID- 19. *Journal of Professional Capital & Community*, 5 (3/4), 367–374. doi:10.1108/JPCC-05-2020-0020.

Sum, N., 2022. School leaders' perceptions of their roles during the pandemic: an Australian case study exploring volatility, uncertainty, complexity and ambiguity (VUCA leadership). *School Leadership & Management*, 42 (2), 188–207. doi:10.1080/13632434.2022.2045268.

Termeer, C.J.A.M., Dewulf, A., and Biesbroek, R., 2019. A critical assessment of the wicked problem concept: relevance and usefulness for policy science and practice. *Policy and Society*, 38 (2), 167–179. doi:10.1080/14494035.2019.1617971.

Trowler, P., 2012. Wicked issues in situating theory in close-up research. *Higher education research and development*, 31 (3), 273–284. doi:10.1080/07294360.2011.631515.

Uhl-Bien, M., 2021. Complexity and COVID-19: leadership and followership in a complex world. *Journal of management studies*, 58 (5), 1400–1404. doi:10.1111/joms.12696.

UNESCO, 2020. *Education in a post-Covid world. Nine ideas for public action*. Paris: UNESCO.

Virella, P., 2022. New principals in the COVID corridor: an exploratory case study. *Journal of Educational Administration*, 61 (1), 1–15. doi:10.1108/JEA-01-2022-0012.

Wharton-Beck, A., *et al*., 2022. K-12 school leadership perspectives from the COVID-19 pandemic. *Policy Futures in Education*, 1–22. doi:10.1177/14782103221135620.

White, S., *et al*., 2022. In-the-moment experiences of rural school principals in the COVID-19 pandemic. *The Rural Educator*, 43 (2), 47–59.

World Bank, 2020. *The COVID-19 pandemic: shocks to education and policy responses*. Washington DC: World Bank Group. https://documents1.worldbank.org/curated/en/365801588601466966/pdf/The-COVID-19-Pandemic-Shocks-to-Education-and-Policy-Responses.pdf.

Yildaz Sal, S. and Gocen, A., 2022. Teachers' views on leadership in the new normal. *Asian Journal of Distance Education*, 17 (1), 1–16.

Zancajo, A., Verger, A., and Bolea, P., 2022. Digitalization and beyond: the effects of Covid-19 on post-pandemic educational policy and delivery in Europe. *Policy and Society*, 41 (1), 111–128. doi:10.1093/polsoc/puab016.