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Editorial

Leadership Through Times of Crisis: Possibilities and Practices for Adaptive Leadership

This issue focuses on the critical role played by educational leadership in the quality and success of children's and young people's experience of schooling. The role is complex and involves leaders interacting not only with children and families, but also with professional colleagues in and beyond their schools. Today, perhaps more than ever, learning and leadership are situated in what has been described as a particularly volatile, uncertain, complex, and ambiguous context, both locally and globally (Hadar et al., 2020). Effective leadership in such contexts requires what Heifetz and colleagues (2009) referred to as adaptive leadership. Adaptive leadership demands being open-minded and metacognitive about theories, beliefs, and practices in order to create effective leadership practices in our schools that respond effectively to the emergence of new problems. This is the case on any given day, but the situation becomes many times more critical when a crisis is involved. For that reason, educational leadership must be optimal. The articles in this issue are all relevant to such leadership as they focus particularly on adaptive leadership during times of crisis.

The articles have three orientations.The first orientation offers a "big picture perspective", and this is taken up in the first two articles presented in this issue.

Louise Stoll and Claire Sinnema set the scene in their piece "Leading curriculum realisation through schools as learning organisations in and beyond times of crisis". They define crisis as constituted by the coalescence of significant global, local, and contextual challenges that vary in nature—they may, for example, be social, environmental, technological, economic, public health-related, political, or combinations thereof. They also vary in the prominence of their urgency and their complexity, context, duration, and impact.

Stoll and Sinnema set out a model that conveys the multiplicity and complexity of crisis-associated challenges that are prevalent today and that have implications for the nature of curricula going forward. Stoll and Sinnema note that, while education professionals have an important role in providing curriculum experiences for such times, the profession itself currently faces a crisis that includes, for example, the challenges of staffing supply, recruitment, retention, and health and wellbeing issues. The authors focus on the role of schools as learning organisations in realising aspirations of fit-for-the future curricula. As they explain, "schools that are learning organisations have the adaptive capacity to navigate such challenges and address these demands. This may be because they are constantly engaged in learning—individually, together, collectively, within, and beyond" (p. 17).

Continuing with this big picture orientation, Jo Smith and Ruth Boyask set the scene from a policy point of view with their work on "School policy actors in times of crisis: The role of postgraduate programmes". Noting that rapid policy making often happens during times of crisis, the authors explore ways in which postgraduate study might "prepare educators to serve as

adaptive policy actors in times of crisis" (pp. 23-24) while also exploring the constraints faced. Drawing on critical education policy studies of theory and challenging more traditional linear notions of policy enactment, they focus on school educators and leaders as policy actors who translate policy into actual practice in schools. They make a convincing argument for the importance of preparing educators and leaders to be policy actors in schools, stating:

> When policy enactment is conceived of as a creative process of recontextualisation, educators may become aware of their own potential to interpret and use policy to divergent ends. Policy actors have the potential to make deliberate interventions within their schools and communities through making policy that originates elsewhere relevant to their particular context. (p. 25)

Smith and Boyask's interview study of postgraduate students studying educational policy at two New Zealand universities is presented in relation to four settings: professional, workspace, university, and personal. Findings indicate that, while these educators were able to gain significant knowledge of how to be adaptive policy agents, the institutional barriers of their positions limited their ability to do so. Next, the issue turns to three articles that continue the leadership thread, but with an orientation toward specific qualities or stance that leaders draw on in their leadership work.

Next, the issue turns to three articles that continue the leadership thread, but with an orientation toward specific qualities or stance that leaders draw on in their leadership work.

In "Understanding change through the lens of paradoxical tensions", Megan Welton examines leaders' stance related to tensions. Her overarching research question asks "How do leaders approach tensions as they organise change?" and she explores how different approaches affect adaptive change. Using two secondary schools as case studies, Welton focuses on three areas of tension (change–stability, connection–autonomy, and challenge–support), and her findings provide a clear picture of the complex tension-filled landscape that adaptive leaders face. She defines tensions as "choices between two options that appear in opposition, and yet, paradoxically, both are necessary if an organisation is to achieve its mission" (p. 35). Welton notes that schools can tend to get caught in a tug-of-war when faced with these tensions, and she points to the significance of supporting leaders to integrate tensions. Integrating tensions requires leaders take a stance of AND, where there is consideration of BOTH challenge and support or there is attention paid to BOTH connection and automony. Indeed, Welton makes the overall observation that "[f]ocusing on one side of a paradoxical tension constrained the schools' capacity to respond to adaptive problems" (p. 51) and she highlights the importance of leaders having an open mind about how their own beliefs might contribute to the way they approach tensions in their organisations (Le Fevre et al., in this issue).

Continuing with the focus on stance is an article on "Open-mindedness for effective leadership" by Deidre Le Fevre, Frauke Meyer, and Claire Sinnema. These authors explore the extent to which educational leaders exhibit open-mindedness during conversations about concerns. The article draws on the concept of adaptive leadership and emphasises the importance of understanding open-mindedness as a stance in leadership practice rather than just an intellectual virtue. Through their application of the left-hand column technique originating in Argyris and Schön's work during the 1970s, they consider the relationship between spoken and

unspoken thoughts and thus reveal patterns in educational leaders' conversation practices with regard to stance. The authors found that only four out of 26 educational leaders consistently held an open-minded stance during conversations. Most leaders oscillated between open- and closed-mindedness, while a few maintained a closed-minded stance throughout the conversation, such as assuming the validity of their own views, making negative attributions, and dismissing others' perspectives. The authors highlight that the rarity of open-mindedness and suggest leaders may find being open-minded "even harder if faced with more extreme stress and crisis" (p. 70), given the amplification of associated challenges. They conclude, therefore, that finding leverage points for, and interventions focused on, open-mindedness is crucial for effective leadership as it enables leaders to engage in meaningful problem-solving and adaptive change, especially in crisis situations and during times that are volatile, uncertain, complex, and ambiguous.

In a theoretical piece entitled "The challenge of complexity: Adaptive expertise and the potential of metacognitive school leaders", Kaye Twyford digs deep into theoretical ideas about stance that have strong implications for educational leadership practice. Specifically, she puts out the challenge that: "It is time to realise the untapped potential for improvement connected to being metacognitive" (p. 87). Twyford explores the importance of metacognition for leadership in times of uncertainty and explains how contexts of complexity and not knowing are common experiences for people during times of crisis. Referring to the recent pandemic, Twyford explains that:

> Almost overnight, this complexity, if not the overwhelming potential for chaos, was palpable. Instead of leaders experiencing an incremental introduction to complexity, the pandemic created a cauldron of complex challenges and intense emotion, with perceived risks and vulnerability over not only personal safety but also the safety of those for whom they were responsible. (pp. 74-75)

Twyford provides a clear analysis of the role of both metacognition and adaptive expertise in adaptive leadership, and she makes a strong case for the intentional focus on metacognition to enable leaders to be more effective when leading through the complexity of day-to-day life in schools as well as during times of crisis.

The final two articles move to a third orientation, that is, what leadership work looks like in practice in school contexts.

In "Principals engaging middle leaders in school improvement: Case studies from New Zealand and Hong Kong", Frauke Meyer, Chun Sing Maxwell Ho, Kylie Lipscombe, and Darren Bryant present case studies of school leadership in both New Zealand and Hong Kong. They explore how principals effectively engage middle leaders as change agents in school improvement, particularly during times of crisis. The study employs a theory-of-action approach, drawing on the work of Argyris and Schön, to understand leadership practice in two primary schools identified as successful in this area. It leads them to an analytic framework focused on beliefs, actions, and impacts. Key findings reveal that effective principals have a strong vision for improvement, believe in developing future leaders, and value collaborative leadership. These principals' actions include creating organisational structures for collaboration, engaging middle leaders in joint problem-solving, and building shared understanding through professional development. The study concludes that principals' effective engagement of middle leaders

results in a shared focus on improving student outcomes and proactive problem-solving, as well as increased confidence among middle leaders. The effective approaches this study reveals "play a particularly important role in moving schools from crisis management to working collaboratively towards school improvement and equity in outcomes. [These approaches] apply across contexts wherein leaders aim to utilise adaptive leadership to prevent crises and solve the 'wicked' problems that emerge from complex and uncertain education environments" (p. 105).

Finally, the article by Camilla Highfield and Rachel Woods, "The adaptive expertise of curriculum middle leaders in secondary schools", explores how curriculum middle leaders in New Zealand secondary schools utilise adaptive expertise to develop teacher collaboration. The research focuses on the leadership practices of 60 curriculum middle leaders and examines their strategies to maintain a cohesive curriculum department amidst ongoing policy changes and crises. The study employs the Ontario Leadership Framework (OLF) to analyse leadership practices, focusing particularly on building relationships, developing people, and facilitating organisational development. Highfield and Woods' findings highlight that middle leaders play a crucial role in fostering teacher collaboration, building relational trust, and equitably distributing resources. Middle leadership practices are pivotal in creating opportunities to build resilience among teachers and therefore they require ongoing professional learning and support that builds their own capability to meet the requirements of change leadership within diverse secondary school settings.

The articles in this issue therefore bring diverse perspectives on crisis to the leadership table, and they signal various ways that the experience, presence, or risk of crisis intersects with educational leadership work.

In addition, the contributors to this issue have offered a range of definitions and perspectives on the notion of "crisis" itself. Stoll and Sinnema present a model based on a definition of crisis as "the coalescence of significant global, local, and contextual challenges" (p. 2) of many types, including social, environmental, technological, economic, public health-related, and political. They remind us that such challenges vary in urgency (sudden or slow brewing), complexity (interrelated or deeply intertwined), context (local, national, or global), duration (newly emerged or long-standing), and impact (devastating or potentially leading to new beginnings). Other pieces similarly draw attention to wide-ranging types of crises, including Le Fevre et al. who contrast micro-crises of organisations and macro-crises that reveal larger national trends, as well as crises of an ongoing/pervasive nature as opposed to those that are sudden and unexpected, including natural disasters. Meyer et al. use the language of "systemic issues" and "acute crises" to contrast crisis types, while Welton reveals that failure to provide leadership by integrating tensions can in fact precipitate "not capital 'C'" crises (such as those that originate from exogenous shocks like COVID-19 or natural disasters) but crises that we precipitate by focusing on one side of a tension.

The articles in this issue also offer many and diverse insights into the ways in which crises touch the demands of educational leadership work, including work at the intra- and inter-personal levels, as well as the organisational and system levels. The following points summarise just some of these insights:

- The crisis situation we are in calls for curricula that are "fit-for-crisis" and therefore "fit for the immediate and longer-term future". Once they are "fit", the practice of leading schools as learning organisations can equip educators to deal with curriculum realisation challenges and learning demands (Sinnema & Stoll, 2020) heightened by crisis contexts (Stoll & Sinnema, this issue).

- Crises demand complex problem-solving, which, in turn, requires leaders' open-mindedness (Spiegel, 2012). Open-minded leaders can better support the development of understanding and respect that are essential to the collaboration and decision-making required in times of crisis (Le Fevre et al., this issue).

- A crisis is a wicked problem (Rittel & Webber, 1973), and we can learn how leaders respond to these crises using the example of another form of wicked problem—school improvement (Meyer et al., this issue).

- Policy-making in response to crisis is often rapid and demands educators who are well-prepared to be policy actors (Singh et al., 2013; Smith et al., this issue).

- Crisis has implications for middle leaders, who are often charged with the challenging work of modifying systems and practices in response to crisis, thus requiring them to enact agency (Bandura, 2006) and build resilience (Highfield & Woods, this issue).

- Crisis requires metacognition (Flavell, 1979), because metacognition is core to the adaptive expertise required for embracing ongoing complex challenges that leaders face in schools (Twyford, this issue).

- Crisis demands the integration of tensions (Smith & Lewis, 2011) taking an AND rather than an either-or approach (Welton, this issue).

All contributors to this issue make a clear case for the importance of adaptive leadership both during times of crisis and beyond. Aspects of adaptive leadership are referred to in different ways across the articles, such as "adaptive challenges", "adaptive expertise", and "adaptive change". A common theme across all the articles is that adaptive leadership is complex and important work at the best of times, and it becomes even more complex, urgent, and important during times of crisis. Our capacity to take the types of stances discussed in these articles is crucial to adaptive leadership; however, such capacity can be compromised during times of crisis, which itself highlights the importance of providing opportunities for leaders to be intentional and metacognitive in their work.

The evidence and ideas presented in this special issue may be considered as a call to action. Whatever the geographic location or educational context educators are working in today, they will be faced with crises of at least some of the types described in these articles. While some crises may be out of our control, an important first step is to understand the nature of these challenges, so that individuals, groups, and organisations can learn together in ways that improve responses. Indeed, this work needs to also happen at a systemic level, wherein different key players share an understanding of crucial issues, such as policy enactment challenges and the organisational supports needed.

Adaptive leadership in times of crisis demands intentional work. It takes being open-minded about the nature of problems and the approaches needed to solve them. It takes a willingness to consider the tensions inherent in the work, rather than being tempted to ignore them. And it takes a multi-layer approach to supporting schools as learning organisations.

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Leading Curriculum Realisation Through Schools as Learning Organisations in and Beyond Times of Crisis

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ABSTRACT: Curricula are critical to shaping children's and young people's experience of schooling. That is particularly so in times of crisis. In this article, we explore a notion of crisis that involves the coalescence of challenges of various types (social, environmental, technological, economic, public health-related, and political). These challenges have positive counters that we argue should be the focus of curricula which are fit for crisis and, therefore, fit for the immediate and longer-term future. Curricula, and associated pedagogies and assessments, must respond to and reflect the current and future needs of young people growing up among these challenges. We revisit a prior model of curriculum realisation (Sinnema & Stoll, 2020) to consider how curriculum realisation challenges (depth, spread, pace, and reach) and associated learning demands (commitment, knowledge, understanding, and capability) are heighted in the context of crisis. We then discuss how leaders can use the power and potential of schools as learning organisations (SLOs) (Kools & Stoll, 2016) to equip educators and schools to approach curriculum realisation challenges and meet learning demands through organisational learning, collaborative professional learning, systemness and ecosystem learning, and learning leadership. We also argue that SLO transversals should be extended to include compassion.

Key words: Learning leadership, curriculum, learning organisation, organisational learning, system, professional learning

Introduction

In our earlier work (Sinnema & Stoll, 2020), we argued that schools that are learning organisations are better equipped to address the challenges associated with realising aspirations for new curricula and to meet the associated learning demands of educators. Schools as learning organisations (SLOs) have the capacity to change and adapt routinely to new environments and circumstances as their members, individually and together, learn their way to realising their vision (Kools & Stoll, 2016; Organisation for Economic Co-operation and Development [OECD], 2016).

In this piece, we consider whether claims about the power of SLOs hold true in times of crisis. In responding to this, we first describe our understanding of the term "crisis" and propose that the current context in which educational effort occurs can be conceived as one of crisis. As the Model of Crisis and Curriculum (Figure 1) sets out, this contextual crisis presents a call for curriculum action; it demands new and improved curricula that are fit for crisis and, therefore, "fit for the future". And by "future", we don't refer to a distant time but to the immediate future, starting today.

The Crisis Context

In this piece, we define "crisis" as constituted by the coalescence of significant global, local, and contextual challenges that vary in nature—they may, for example, be social, environmental, technological, economic, public health-related, political, or combinations thereof. They also vary in the prominence of their urgency and their complexity, context, duration, and impact.

To elaborate, challenges vary in terms of how their urgency reveals itself; some are sudden, like COVID-19, while others may be slow brewing. Some are known; others may be unknown and yet to surface or be realised. Challenges vary in complexity; most are at least interrelated, and many are deeply intertwined. Some connect more closely to particular local or national contexts, while others resonate globally. Challenges vary temporally, including recency and duration; some will have newly emerged, others surfaced less recently and continue (for example the consequences of COVID-19), and others can be long-standing and similarly persistent. The impacts of crises also vary, sometimes leading to devastating results, while elsewhere new and promising beginnings may arise. And these very different outcomes aren't necessarily mutually exclusive. Common to all of these challenges is that they are adaptive—that is, the gaps between desired and current states can't be closed by applying existing approaches alone (Heifetz, 2004).

Figure 1

Model of Crisis and Curriculum
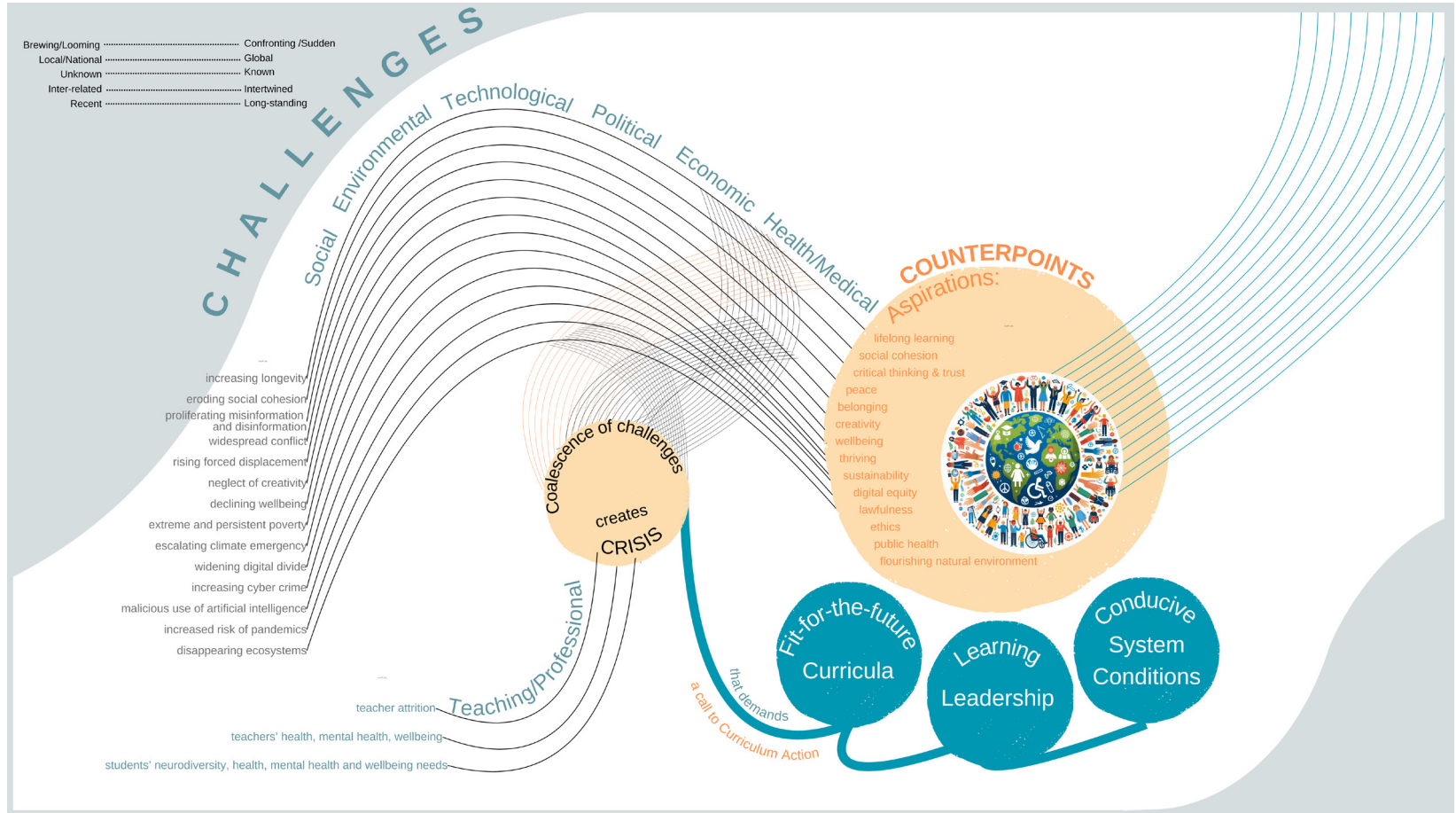
The world in and for which we educate young people is challenged in so many ways—we live in times of increasing longevity; eroding social cohesion; declining wellbeing; neglect of creativity; rising forced displacement; proliferating misinformation and disinformation; an escalating climate emergency; disappearing ecosystems; widespread conflict; extreme and persistent poverty; precarious food security; a widening digital divide; increasing cyber-crime; and health-related challenges, such as the recent pandemic and the increasing likelihood of health issues in populations who are living longer (Scott, 2024). The list is long; the crisis is real. And the crisis resulting from this coalescence of challenges is especially apparent when the seriousness of each is recognised. In the following paragraphs, we elaborate just two of the challenges (increasing longevity and eroding social cohesion) to illustrate this.

Increasing longevity is a pressing challenge that demands attention, given the enormously increased chances people have of living to beyond 100 years old. As Gratton and Scott (2017) outlined, children born in the West today have more than a 50% chance of living to over 100, whereas a child born 100 years ago had less than 1% chance of the same. This, they explained, has hugely significant ramifications for individuals and society in terms of careers, education, finances, health and relationships, and the very concept of time. Indeed, the traditional notion of the three parts of life—education, work, then retirement—requires new ways of thinking to ensure that greater life expectancy is a gift not a curse. Longevity also has salient implications for curriculum, and for the necessity to prepare young people for lifelong learning (Perkins, 2014).

Turning to eroding social cohesion, this refers to the reducing social connections and social capital in societies and how opportunities for different groups widen, with polarisation and the creation of a "them and us" situation (Greve, 2019). Indicators of such erosion are seen internationally; in a recent OECD How's Life report, for example, "Less than half of the population across OECD countries trust their institutions, and only 1 in 3 people feel they have a say in what the government does" (OECD, 2020, p. 17). Gender inequities also serve to erode social cohesion; for example, as recently as 2020 only one third of all seats in OECD parliaments were held by women, and so the goal of inclusive decision-making is far from being achieved (OECD, 2020). Erosion of social cohesion is intensely problematic when considering its aims. Social cohesion tries to bring people together by reducing inequality and economic differences in society. It balances personal growth with a sense of belonging, individual freedom with social justice, and diversity with common rules for resolving conflicts.

These two examples represent challenges in a non-linear world (Gomes, 2022), where no clear causal sequences lead to tidy solutions, and the environment is increasingly less stable and predictable than in the past. These are wicked problems (Rittel & Webber, 1973); they can neither be articulated straightforwardly nor solved simply or conclusively. The crisis that we propose resulting from such coalescing challenges might be described in terms of "radical uncertainty", as Kay and King (2020) put it. From their perspective, radical uncertainty contrasts with resolvable uncertainty, because the former can't be removed by getting more information or looking things up, nor can it be addressed by calculating probability distributions. In radical uncertainty, not only don't we know what will happen but we frequently don't even know the kinds of things that could happen. Those "unknown unknowns" (Luft & Ingham, 1955) are particularly likely when challenges like those we have introduced coincide. Such radical

uncertainty, though, doesn't preclude an optimistic stance on response possibilities. As Hasselaar (2023) notes, the notion of hope "orients us to the possibility of gradually starting together something new and liberating in the midst of radical uncertainty" (p. 10).

Crisis in the Teaching Profession Responding to the Crisis Context

Teachers are dealing with the multiplicity and complexity of these challenges simultaneously, and there is an urgency to address them. The struggles teachers experience are compounded by the state of the teaching profession itself. The profession is facing its own crisis. Teachers, school leaders, and others supporting teaching and learning in schools face numerous individual and collective challenges. Many are connected with global, national, and local crises, as well as particular political responses to them.

Supply, Recruitment, Retention, Attrition

Teacher supply is already described as a crisis in many countries. A recent United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2024) report on addressing teacher shortages warned that meeting the sustainable development goal for quality education for all by 2030 requires 44 million more primary and secondary teachers. Half of that number are needed to replace existing teachers who are leaving the workforce. Attrition isn't a new problem in education, but it is intensifying, as UNESCO (2024) explained:

> Between 2015 and 2022, attrition rates of primary education teachers doubled around the world from 4.6 to 9 per cent. Regardless of the country income level, and even remuneration, teachers are leaving the profession within the first five years of practice. (p. 2)

Retention alongside recruitment is vital, but recruitment patterns are similarly troubling. England, for example, experienced a decrease of 13% in recruitment to initial teacher training between 2022–23 and 2023–24, with numbers in both years falling below pre-pandemic levels (Department of Education, 2023). Reasons for this decline vary, but can be related to the social status of teaching; teachers' feelings of being undervalued; the quality of teacher education; issues from the pandemic; and overly high levels of bureaucracy, accountability, and working conditions more generally.

Teachers' Mental and Physical Health and Wellbeing

The prevalence and seriousness of teachers' mental health issues (Santiago et al., 2023), particularly following the pandemic, make responding to the crisis we introduced previously especially challenging. Teachers have been disproportionally impacted by long COVID, and have experienced an overall decline in mental health and wellbeing (Kim et al., 2022), high levels of stress and burnout (Kotowski et al., 2022), and anxiety and depression (Cohen-Fraade & Donahue, 2021; Silva et al., 2021). These have persisted beyond the height of the pandemic and are associated with their educational role during pandemic times. For example, teaching-related factors that compromise mental health and well-being include "uncertainty, workload,

negative perception of the profession, concern for others' well-being, health struggles, and multiple roles" (Kim et al., 2022, p. 299). Wellbeing is influenced by individual and relational conditions, and organisational conditions also have a key role to play (Cann et al., 2022). Many educators reported reduced efficacy and morale (Fray et al., 2023) resulting from unprecedented pressures of teaching through a pandemic, and issues of teacher stress (Bradshaw et al., 2024) and burnout (Pressley et al., 2024) persist. They have come to re-evaluate priorities and consider employment that allows similarly flexible working patterns to those around them (Harland et al., 2023).

Teachers' Capacity to Respond to the Complex and Serious Needs of Young People

Mental/physical health and wellbeing challenges of teachers are mirrored in the children and young people they educate and care for (Kauhanen et al., 2023; Orban et al., 2024; Panchal et al., 2023). For example, effects of the COVID-19 virus, alongside lockdowns and interrupted schooling, have been wide-ranging, far-reaching, and serious, leading to additional challenges for educators. Additionally, educators are responsible for meeting the needs of a student population that, like the general population, has an increasingly high proportion of those who are neuroatypical (LeFevre-Levy et al., 2023) or neurodiverse (Doyle, 2020). This presents a call for teaching that addresses various associated learning difficulties (Clouder et al., 2020) and does so with compassion (Hamilton & Petty, 2023).

Political and Policy Responses

Politicians and policy makers, of course, play a significant role in identifying and addressing crises through political processes. But their responses and actions may also be the *cause* of crises. School-based educators often must deal with the most difficult implications of controversial curriculum reforms, including the banning or requiring of particular content and ideological curricular debate. Additionally, high accountability systems can drain teachers' creativity and sense of purpose—key reasons for choosing teaching.

Fallout from these current and impending crises has a massive impact on schools. School leaders have to deal with the consequences, as well as with challenges specific to their own local context, such as a drop in the student population and lack of intergenerational understanding where an aging teaching staff is less adept with technology than their students.

New Curricula in the Face of Crisis

Given the coalescence of crises and challenges impacting schools in many countries, we believe that it is fundamentally inadequate and immoral to educate young people using a curriculum that is better suited to an earlier generation. The need for curricula change in response to global, national, and local crises is clear. Curricula, and associated pedagogies and assessments, have to respond to and reflect the current and future needs of children and young people who are growing up among these challenges and who can address them through their

adult lives. Curricula need to respond proactively to and orient toward the resolution of *all* challenges of all types—in other words, curricula need to be "fit for crisis".

Curricula that are fit for crisis are, fundamentally, curricula fit for the immediate future, starting a millisecond from now. They prompt educative efforts directed at mitigating the risks of many and varied challenges. To be educative, efforts toward "fit for crisis" curricula aspirations must not be unduly troubling, or create unreasonable burden or panic; rather, they must be hopeful, positively oriented and strongly promote agency. These curricula must help prepare young people to engage with and ultimately contribute to addressing the many serious, urgent, and persistent issues of our time, all of which put at risk the quality of our children's and young people's futures. So, using the curriculum as a lever for addressing these issues makes sense, although there is, inevitably, competition for time and space across curriculum aspects.

Curricular Aspirations as Positive Counterpoints to the Negatives of Crisis

Fit-for-crisis curricula focus on aspirations that act as counterpoints to the many contextual challenges. They promote lifelong learning, cohesion, trust, peace, belonging, creativity, wellbeing, thriving, sustainability, a flourishing natural environment, digital equity, ethics, and public health (see Figure 1).

To take the example of lifelong learning as one response to the longer lives young people will lead, those who design curricula need to consider questions about how to create capacity for learning and ensure children and young people flourish throughout their lives (Stoll (2020), such as how we might support children and young people:

- to learn to be flexible and adaptive, to make good choices about their lives, and be able to change paths confidently,
- to love learning so that learning is the 'go to' approach to resolving challenges they face,
- to extend and deepen their engagement with and understanding of technology and use this to enhance the learning of their peers and, indeed, their teachers,
- to connect more deeply with each other and to really understand and care about others,
- to feel good about themselves and find their way through difficult times,
- to find the inner calm that helps them to focus their learning when their lives outside may be filled with chaos, pain, or fear.

So, it is clear that positive counterpoints to the negative aspects of crisis are important to focus on. Note, in Figure 1, for example, proliferating misinformation and disinformation is countered with critical thinking and trust; disappearing ecosystems is countered with flourishing natural environments; extreme and persistent poverty is countered with thriving. While the focus of this article is not an elaboration of these counterpoints, they signal the nature of aspirations that we argue should be the focus of curricula and give purpose to broader educational efforts. They are already reflected to varying degrees in current or recent curriculum reforms across many countries and jurisdictions, including Singapore, Latvia, Norway, Eire, Scotland, Wales,

and the OECD's 2030 initiative (OECD, 2019). These curricula continue to pay attention to knowledge but also go beyond. They are "both/and" in nature—both knowledge and more.

Getting curricula "right" is one thing; realising the aspirations they put forward is quite another. In the following section, we revisit the model of curriculum realisation developed in our prior work to consider the challenges of curriculum realisation and associated learning demands through a crisis lens.

Implications of Contextual Challenges for Curriculum Realisation Challenges and Learning Demands

Previously, we described challenges involved in curriculum realisation that need to be attended to and learning demands that need to be met (Sinnema & Stoll, 2020). The essence of these challenges and demands are summarised in Table 1. Both provide a major agenda, even when schools aren't facing an uphill struggle with the crisis we have described. In times of crisis, the level of curriculum realisation challenges and the degree of learning demands (see Table 1) are ratcheted up. For many, they may seem almost insurmountable, given the professional context and conditions in which educators work aren't necessarily ideal for an effective response.

Table 1

Curriculum Realisation Challenges and Learning Demands

Challenges
• *Depth* – relates to the potential misunderstandings and over-assimilation leading to surface rather than deep understandings about curriculum elements and aspirations. The challenge is to avoid implementation that is well-intentioned but misaligned to curriculum intent in its full depth.
• *Spread* – relates to the challenge of how to leverage expertise from across networks of educators and reduce the gap between those who are leading or ahead of curriculum changes and those who are catching up; in other words, ensuring that the curriculum is realised across a system, not just in pockets.
• *Pace* – the pace of response to changes in curriculum by teachers, schools and the wider system needs to be appropriate—while faster is not always better, the pace of change rarely matches the aspiration of those leading educational change efforts.
• *Reach* – the ultimate challenge and end point in curriculum realisation efforts is ensuring links in the long chain between curriculum policy and students' experience. The reach challenge is to bring curricula to life in ways that reach the students they were designed for, thus enhancing their curriculum experience and success, and doing so in ways that ensure equity goals are met.

Key learning demands

- *Commitment to change* – to realise curriculum change, teachers need to be open to thinking and acting differently, including believing in the change, being willing to learn, and change their practice.

- *Knowledge of the changes* – curriculum change agents/educators need to know and understand the specific changes and broader curriculum structure and relationships between elements.

- *Understanding implications for their response* – educators need to know "what I actually need to do"; they also need opportunities to learn new in ways that develop their capabilities for these practices.

- *Continuously strengthening capability* – educators need to develop agency and efficacy around their practice, inquiring and drawing on other evidence, becoming adaptive experts and critical friends, and experiencing the conditions that support this.

Note. Adapted from "Learning for and realising curriculum aspirations through schools as learning organisations," by C. Sinnema and L. Stoll, 2020, *European Journal of Education, 55* (https://doi.org/10.1111/ejed.12381). Copyright 2020 by John Wiley & Sons, Inc.

Intensified Curriculum Realisation Challenges in the Face of Crisis

The imperative to realise "a new curriculum" reflecting or similar to the 2030 learning compass principles (OECD, 2019), while dealing with coalescing challenges, can put intense pressure on **depth**. Time needed for deep engagement with new curriculum concepts is in short supply, especially where schools face budget cuts and/or teacher shortages. Speed with which technology is developing means that new concepts need to be grasped before previous ones have time to be embedded. Short election cycles frequently lead governments to look for quick wins. The COVID-19 pandemic highlighted how a particular—and some might argue, unique—crisis forced schools and school systems around the world to shift their focus and modus operandi. Mental health and wellbeing, for example, took on much greater prominence and, in many cases, this emphasis has remained, although elements of wellbeing were certainly present in many curricula before the pandemic. Crisis impacts the extent to which professionals can grapple with the deep rather than surface ideas of curriculum change. The demands of a crisis together with those required for deep engagement with the curriculum may well present too much cognitive load for depth to be achieved.

Even when courageous school leaders try to develop a shared vision that aligns with—and implies—a new curriculum with associated pedagogies and assessments, staff turnover may affect consistency of approach. How do you achieve **spread** when people are on the move? The crisis coalescence and related workforce crisis differentially affect schools in different countries and even localities, meaning that spread is likely to be patchy, both within and across schools, and the rewards and burdens on educators within networks can be uneven (Sinnema et al., 2021). It can be harder to recruit and retain teachers in certain parts of a country, and there is also the issue of not just recruiting teachers but recruiting the right ones to strengthen curriculum capital. Curriculum capital combines both recognition of curriculum realisation challenges and the

capacity to meet the individual and collective learning demands associated with those challenges (Sinnema & Stoll, 2020).

Some schools have less access to technological connectivity, and small or isolated schools may struggle to access sufficient resources and external support. For some schools there is a significant amount of catching up to do, especially if they are facing considerably more pressure than usual. In high accountability systems, especially those focused on results in subjects traditionally seen as "the basics", the fear of being judged in not delivering on these results may lead some schools to focus all or most of their attention on a small part of the curriculum, thereby widening the gap between the "haves" and "have nots" in terms of a broad and balanced curriculum.

The impact of the crisis on **reach** is particularly worthy of note. For those seeking a broader "life-worthy" or "life-ready" (Perkins, 2014) curriculum, a long-standing, thorny challenge to reach has been the assessment of the ultimate impact curricula have on students. Many educationalists have long argued the need to broaden assessments and evaluate what is valued, rather than vice versa, and organisations are exploring, highlighting, and championing such changes (Lucas, 2021). Reluctance to make curriculum changes can result from both the misguided belief that some competencies can't be assessed and also the lack of valid forms of assessment for such competencies. Assessing competencies, as Hipkins (2006) set out, requires that often deeply held assumptions about assessment be challenged. These assumptions include beliefs about the fixed nature of knowledge, skills, or attitudes; the generalisability of assessment information from any one assessment; the relatedness of competencies and their contexts; and the role of measurement error or task design in explaining variation in student performance on assessment. Recent international assessment trends attempt to focus on competencies, such as the 2022 creative thinking assessment (OECD, 2024) in the Program for International Student Assessment. This may help to raise the status of broad curriculum goals and encourage further efforts in this area.

When added to the usual challenges of realising new curricula (Sinnema & Stoll, 2020), the crisis, or coalescence, of challenges set out earlier heightens learning demands.

Heightened Learning Demands in the Face of Crisis

Starting with **commitment**, because commitment to teaching is at a low ebb—in some countries at least—the teaching force may be seeking fewer, not more, learning demands. Coupled with high teacher turnover and difficulties in recruitment, it is hard to maintain consistency, equality of opportunity, and, frequently, quality. And when staff span different generations (Twenge, 2023), the task of leading colleagues who may have different priorities is a further challenge. For teachers whose salaries don't cover rising living costs, the pressures of worrying about their family or having a second job can reduce their interest in investing in new learning. As previously mentioned, many are also facing their own health and mental health issues in the aftermath of COVID-19. Those successful with more traditional curricula, forms of pedagogy, and assessment systems may have no desire to move out of their comfort zone; they can't see the reason to change their practice—in other words, "if it ain't broke, don't fix it" (Stoll & Fink, 1997). In different ways, all of these issues can affect teachers' commitment to new

curricula—so that some feel that now is not the right time (and perhaps it never will be) to devote themselves to something they know will require significant effort and will change everything familiar and comfortable. Disrupting this, and requiring people to let go of past ways of working, is characteristic of adaptive challenges that need to be addressed using adaptive expertise (Heifetz, 2004).

Commitment to developing adaptive expertise for new curricula is essential because resting on our laurels—or "doing what we've always done because it's worked well for us in the past"—will no longer suffice. AI is rapidly changing what future life and work will look like (Mollick, 2024) and many young people will live into the 22nd century. Whether or not schools and teachers have more control over their own curriculum, it is becoming imperative that they have much deeper **knowledge** about the major global and contextual forces and issues that shape the need for such significant curriculum change as well as specific new curricula, associated pedagogies and, potentially, assessments.

In terms of **understanding** what the new curriculum means for their own practice, teachers aren't just dealing with curricular changes. In a changed context—where they are frequently dealing with increases in student neurodiversity needs, mental health and gender issues, addiction to smartphones, cyberbullying, and more—getting their heads around what a new curriculum means for their own practice is especially complex.

Even if teachers understand that they need to change and what this means for them, the new skill and **capability** development involved is likely to be extensive, especially for those who trained a long time ago and for recent recruits who have been through more traditional training experiences. Dramatic shifts in technology also frequently create disconnects between different generations (Duffy, 2021). As teachers are working to embed the new skills and develop their capability and adaptive expertise (Le Fevre et al., 2016), they may experience these disconnects due to their own knowledge of and responses to technology.

Of course, these curriculum realisation challenges and learning demands are frequently interrelated, as are the responses to them. So how does leadership help schools address these?

Leading Through SLOs to Address Curriculum Realisation Challenges and Learning Demands in and Beyond Times of Crisis

Given that the word "learning" is central to the concept of schools as learning organisations, it shouldn't be surprising that SLOs (see Figure 2) are better equipped to deal with learning demands of a new curriculum in times of crisis. In brief, through collective endeavour, SLOs are focused on the following: developing and sharing an activated vision centred on a broad range of learning experiences and outcomes for all students; consciously and consistently creating and supporting continuous learning opportunities for all staff; promoting team learning and meaningful collaboration among staff; establishing a culture of inquiry, experimentation, innovation, and exploration; embedding systems that help them collect and exchange knowledge and learning quickly in uncertain and changing environments; developing powerful relationships and learning with and from their external environment and wider learning system; and modelling

and growing the learning leadership necessary to bind everything together, provide direction for learning, and ensure that actions are consistent with vision, goals, and values.

Figure 2

School as Learning Organisation
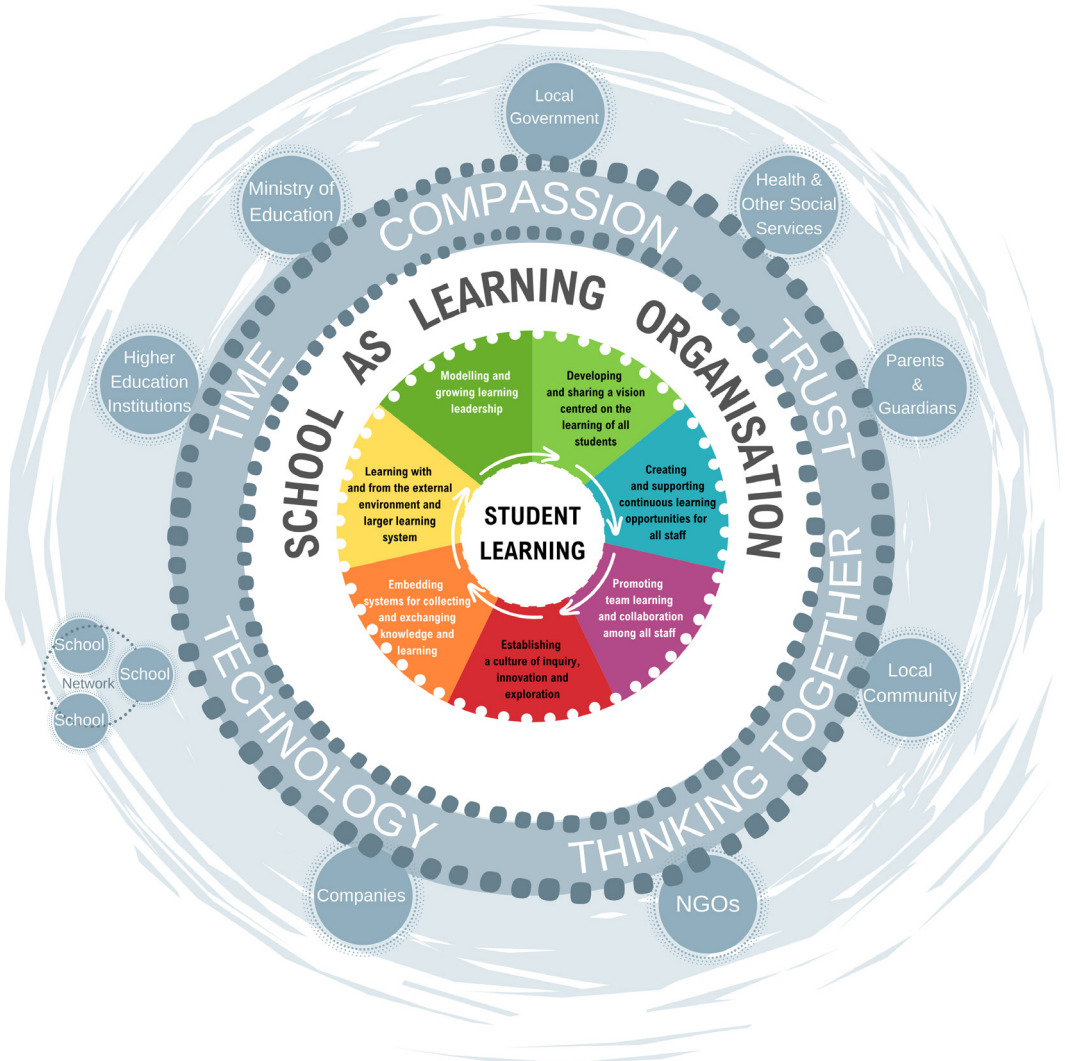
Note. Adapted from "What makes a school a learning organization: A guide for policymakers, school leaders and teachers," by OECD, 2016. Copyright 2016 by OECD, and "Learning for and realising curriculum aspirations through schools as learning organisations," by C. Sinnema and L. Stoll, 2020, *European Journal of Education, 55* (https://doi.org/10.1111/ejed.12381). Copyright 2020 by John Wiley & Sons, Inc.

SLOs draw on transversals—cross-cutting themes that flow through the dimensions and exert influence across the whole. The original research review on SLOs (Kools & Stoll, 2016) highlighted four transversals: trust, time, technology, and thinking together. Trust underpins the necessary internal and external relationships for SLOs to flourish. Time is an essential structure for school development. Technology is now a major driver of and resource for educational change and innovation. Thinking together emphasises the collective learning of SLOs as social enterprises. More recently (Stoll & Sinnema, 2021), we identified a fifth transversal: compassion. Later, we will return to this theme and the reason for its inclusion.

It should be noted that the visualisation of SLO and its transversals has been through several iterations. The initial figure was published in OECD (2016), based on a working paper by Kools and Stoll (2016) and with input from the authors (including one of us). This version and some adaptations did not include the original four transversals. In Sinnema and Stoll (2020), we added an image of the four transversals, extending this image to include five transversals in our Stoll and Sinnema (2021) paper. The transversals in these two publications were presented in a horizontal bar. In their work with SLOs, colleagues in Delta School District, British Columbia, created a visual placing the transversals around the SLO, although not including the ecosystem. A version of this is now published in Gordon and Turner (2024). In this article (Figure 2), we have followed this idea, although we have included the ecosystem around the transversals and added a dotted line between the transversals and ecosystem to highlight the importance of transversals in supporting connections between schools and their ecosystems.

Here, we now consider how leaders of SLOs can use and emphasise learning in different ways to approach the learning demands associated with the kinds of crisis we outlined:

- ensuring organisational learning
- supporting collaborative professional learning
- promoting "systemness" and ecosystem learning
- prioritising learning leadership
- approaching learning compassionately

We elaborate these forms of and approaches to learning below, highlighting practical implications based on theory, our recent experiences, and some illustrative examples from schools and systems we know that have adopted and explored the use of SLOs.

Ensuring Organisational Learning

After reviewing the intellectual roots of organisational learning, Cousins (1998) concluded that "[o]rganizations that learn are extraordinarily open, thrive on experimentation and risk, and tolerate ambiguity. At the same time such organizations are able to construct consensual interpretations, as well as surface and eliminate hidden barriers to collective learning" (p. 233). Through close attention to emerging trends and connections with a diverse array of partners and other stakeholders, changes in the external environment are quickly spotted in SLOs. Schools we know with an SLO orientation habitually use inquiry cycles, including deeper exploration and experimentation to enable staff to trial and evaluate ideas in association with theories of change,

which—by their nature—they adapt as colleagues learn more about what is helping and hindering children's learning experiences associated with the new curriculum. And deep curiosity drives staff to learn much more from the children themselves by talking to them about their learning needs and experiences.

The knowledge and understanding that learning demands require meaning making. For curriculum realisation, this needs to occur at individual, team, and whole-school levels. Learning conversations are a key organisational learning process used in SLOs we know. Through such conversations, educators make meaning together and jointly come up with new insights and knowledge needed to intentionally change and enhance their practice and student learning (Patuawa et al., 2023; Stoll, 2012)—in essence, they deliberately create time to think together as they engage in a process of collective learning. They also test the validity of beliefs about the curricular problems they seek to solve together (Sinnema et al., 2023). With the support of practical protocols, people's own (often tacit) knowledge is combined with the knowledge involved in a new curriculum, including the contextual crises that have led to curriculum changes. Exploring these new ideas and associated evidence, colleagues bring and offer diverse perspectives and are pushed to reflect deeply in ways that challenge their thinking. By sharing, probing, challenging, negotiating, and justifying ideas in an open, respectful, and trusting way, they foster communal interpretation and create new shared knowledge. Collective knowledge creation is what distinguishes organisational learning from individual learning (Louis, 1994). Subsequently, further conversations, mentoring support, opportunities for mini trials, and cycles of inquiry enable teachers to better understand specific implications for their own practice.

Supporting Collaborative Professional Learning

Unsurprisingly, SLOs are well positioned to ensure that staff can access and benefit from appropriate professional learning to develop the necessary capabilities and skills. Because of their orientation to inquiry and using evidence, changing needs can quickly be assessed. SLOs' emphasis on team learning strengthens professional relationships and allows staff to feel comfortable with moving beyond the "Land of Nice" (City et al., 2009) where colleagues steer clear of critical friendship. This, in turn, enables greater challenge, openness to honest feedback, and deeper collaborative learning. Trust, a transversal of SLOs, is important here, but other transversals are equally evident. Colleagues increasingly learn more about and draw on technology to support their own and peers' professional learning. Leaders we know actively prioritise time for inquiry, professional learning, collaborative design, planning, and joint practice development focused on new curricula aspirations. In this, educators engage with each other's theories of action, attending to the beliefs that underpin existing practice in order to learn and move toward new and improved practice (Hannah et al., 2022). Using technology for synchronous and asynchronous leadership learning also enables greater choice and flexibility inside and outside of school time. All professional learning is evaluated to ensure that it addresses needs and makes the necessary difference. Moreover, SLOs we know use innovative forms of evidencing student progress (Lucas, 2021), designed with the assistance of external partners, which also supports evaluation efforts. Such professional learning sustains schools' adaptive capacity.

Promoting Systemness and Ecosystem Learning

Because leaders of and in SLOs understand the systemic nature of bringing about change, they are very intentionally open to and interconnected with the world beyond. First, they experience "systemness" which is "the sense that people have at all levels of the system that they are indeed *the system.* This means they have a responsibility to interact with, learn from, contribute to and be a living member of the system as it evolves" (Fullan, 2021, p. 33), and they enable colleagues to do the same.

Learning isn't isolated. This means that everyone at all levels—micro (school), meso (mediating level agencies, etc.), and macro (national/jurisdictional policy)—is learning their way into the future; all are committed to understanding the world from others' perspectives and helping others to play their role as part of a system that learns, as a national advisory group in New Zealand emphasised (Ministerial Advisory Group on Curriculum Progress and Achievement, 2019). This supports adaptive change in that it "integrates a wider and more strategic swath of organizational knowledge and as well as mines tacit and siloed organizational knowledge to address challenges in maximally effective ways" (Ravitch & Herzog, 2023, p. 6).

In addition, those in other parts of the system are learning new ways to train new teachers, enhance professional learning, grow leadership, assess broader student and staff competencies, and address accountability issues through professional and collective responsibility, as efforts in several jurisdictions highlight.

Leaders of SLOs nourish strong relationships with parents, carers, and the local community. They are heavily invested in a diverse array of communities and partnerships that offer greater opportunities for supporting and enriching students' and staff's learning connected with "crisis"-related themes, new pedagogies, and broader assessments including, for example, new forms of credentialing learning (Hannon et al., 2019). Because SLOs are ecosystemic, the boundaries between schools and the real world are blurred (Hannon with Temperley, 2022). For example, a creative partnership between a group of schools and the local community is supporting regeneration of a declining seaside town in northern England. This involves raising students' aspirations and developing their learning habits in real world situations such as work experience, cultural experiences, and helping out in community projects (Stoll et al., 2025, forthcoming). Commitment to team learning extends to such partnerships, with a greater emphasis on co-creating solutions to problems, co-designing learning experiences, and co-teaching or supporting and learning from partners when they are teaching.

Prioritising Learning Leadership

For successful realisation, future-focused curricula and their associated pedagogies and assessment must be deeply understood, embedded, and widespread. They must also make a positive difference to students' experiences and outcomes. The magnitude of change involved requires leadership totally committed to and imbued with learning. Fundamentally, learning leadership (Istance & Stoll., 2013; Kools & Stoll, 2016) ensures that the many kinds of learning described above are facilitated and occur simultaneously. Learning leadership is driven by the school's vision, and, as many of those we collaborated with during the pandemic highlighted, in

the face of crisis this vision needs revisiting and pivoting (Stoll, 2021). The visioning process has to involve stakeholder input and buy-in as priorities are established. For example, during the pandemic, one school district drew on technology to enable vision development. Using a facilitated process, they gathered and integrated the views of all stakeholders (school staff, students, parents, local community members, and other partners) into a visual map of the district's vision and values (Bauman & Gordon, 2021). Indeed, learning leadership can occur at many levels, including among teachers and students. However, while schools may be learning organisations in their own right, system leadership (e.g., district) is frequently a key driver in stimulating and supporting their transformation, including in times of crisis (Bauman & Gordon, 2021; Reeve & Sarmento, 2021; Thomas et al., 2021). Indeed, policy makers and politicians can, and should, act as learning leaders. Learning leadership is consistent with adaptive leadership which recognises people's role in adaptive challenges and the need for people to learn new ways of operating (Heifetz, 2004).

Learning leaders model the learning processes and pay attention to their own wellbeing. Being highly attuned contextually, they are mindful of potential generational differences among staff and between them and their colleagues, as we have found among leaders we have worked with. We have already referred to the transversals; our collaborations with a range of school systems during the pandemic underlined the critical importance of the human relational aspect of change and the role of leadership in ensuring that relationships strongly supported the change process (Stoll & Sinnema, 2021). This is frequently under-recognised, even during "normal" times. The transversal of trust certainly came through more strongly in our study; however, this particular crisis highlighted a fifth transversal: compassion (Stoll & Sinnema, 2021).

Approaching Learning Compassionately

During the pandemic, it seemed that leaders in schools and systems needed to act in ways that demonstrated a deeper understanding of what people were going through as they tried to keep their organisations and whole systems moving forward. In their introduction to a framework for compassionate systems in schools, Senge et al. (2019) conceptualised compassion as "an essentially systemic property of mind: to cultivate compassion is to be able to appreciate the systemic forces that influence people's feelings, thoughts and actions" (p. 5). They noted that the word "compassion" is "rooted in the Latin 'com' which means 'with' or 'together' and 'passion' which relates to 'suffering' or 'intense feeling'" (p. 4), but distinguished compassion from empathy because the former does not involve being overwhelmed by another person's emotions while staying "next to that other" (p.4) and feeling *with* them as an actor in the system. For our colleagues, and many others we connected with, such compassion was needed during the pandemic while they were possibly facing their own wellbeing and mental health issues as well as absorbing the stress of colleagues. In our experience, modelling both compassion and trust in learning leadership helps promote and support the necessary teamwork involved in addressing crisis. Neuroscience research has shown that compassion stimulates cooperation, increases ability to trust and be tolerant, and decreases anger (Chierchia & Singer, 2017). Compassion, like trust, is woven throughout schools as learning organisations, influencing the entire learning culture. To us, compassion is a necessary, valuable, and deeply human addition to the

transversals—note its inclusion in Figure 2, which depicts our adaptation of our and others' prior visualisation of transversals in SLOs (Stoll & Sinnema, 2021). It adds to the essential sense of community connection and belonging in times of crisis, and it can help maintain the motivation and commitment for the ongoing learning that a new curriculum inevitably requires. The scale and enormity of the challenges and learning demands required to realise crisis-informed curricula will also frequently necessitate courage and bravery, as well as intense curiosity, creativity, use of new language, and different forms of communication.

Conclusion

A coalescence of global, national, and local crises are facing schools, their students, and staff; these crises point compellingly to the need for fit-for-crisis and future-relevant curricula. Significant extra challenges and learning demands are involved in realising such new curricula in complex, uncertain contexts, wherein professionals face their own crises. School improvement solutions that depend on certainty are fundamentally insufficient for the nature of the task. However, our and others' experience suggests that schools that are learning organisations have the adaptive capacity to navigate such challenges and address these demands. This may be because they are constantly engaged in learning—individually, together, collectively, within, and beyond. And, aided by a humane learning culture, conducive policy conditions, structural support, and learning leadership, schools as learning organisations can be well prepared to learn their way into a better future. As we continue to research and engage in development efforts with schools and systems committed to an SLOs approach, we are curious to learn more about their processes, successes and challenges in realising fit-for-future curricula.

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Louise Stoll and Claire Sinnema contributed equally to this manuscript. Stoll and Sinnema share joint first-authorship.

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School Policy Actors in Times of Crisis: The Role of Postgraduate Programmes

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ABSTRACT: *Times of crisis can result in rapid policymaking, at both the macro and micro levels. Little is known about how postgraduate study can prepare educators to serve as adaptive policy actors. This study reports on interviews and focus groups with 11 educators who have completed a policy course as part of a Master of Education programme at two universities in New Zealand. Findings highlight three main tensions: First, knowledge gained from postgraduate study develops educators' policy actor identity in participants' work and professional settings, but schools pose structural barriers through role expectations about who engages in policy. Second, respondents reported that their postgraduate policy course increased their understanding of the policy process, but it also created "islands" when no one else at their school had done the same course. Finally, respondents mentioned the tension between a greater understanding that equity goals can be advanced through school-based policies and the reality that this was only possible if the Senior Leadership Team is receptive. We end with recommendations for postgraduate programmes and areas for future research.*

Key words: Policy actors, postgraduate study, times of crisis, adaptive expertise

Introduction

Times of crisis can lead to rapid policymaking at all levels of the education system in an effort to convert "seeming helplessness into deliberate human decisions … [that] warn us of suffering and motivate us to seize control" (Stone, 2002, p. 168). These situations can occur at

the micro as well as the macro level; for example, during the COVID-19 pandemic, schools had to immediately navigate government policies related to distance learning, while also determining micro-level school-based responses, including whether to require mask-wearing and/or support vaccine mandates.

In this article, we ask the following question: In what ways can postgraduate study prepare educators to serve as adaptive policy actors in times of crisis and what are the constraints faced?

The Role of School-Based Policy Actors

The term "policy actors" is associated with a strand of critical education policy studies, where "education policy, even when centrally mandated, is interpreted, translated, adjusted and worked differently by diverse sets of policy actors, in processes of enactment in specific contexts" (Singh et al., 2013, p. 466). Policy actors have a range of roles, including to "organise, manage, lead, plan, produce, inspire, persuade, and appease, and in doing so they translate policy into practice and make it a collective effort" (Skerritt et al., 2023, p. 580). Policy actors writ large are involved in policy work at many different levels, from school-based work to government-level directives. In education policy literature, school educators' work as policy actors tends to be associated with local policy (Wilkins et al., 2024) as well as what has traditionally been thought of as policy implementation. However, we argue that educators faced with rapid policymaking during times of crisis must become what we are terming adaptive policy actors to engage at different stages of the policy process, from issue definition through to policy implementation and evaluation. We posit that postgraduate programmes have a role to play in equipping educators for this role.

Policy enactment challenges the perception that policy implementation is part of a linear process that is smoothly developed and transmitted from one context to another through hierarchical authority. As such, adaptive policy actors are not relegated to a single role as either designers, transmitters, or receivers of policy; rather, they have the potential to engage in meaning making, interpretation, translation, and the enactment of policy in schools where it is "contextually mediated and institutionally rendered" (Ball et al., 2012, p. 142). Policy texts are recontextualised when they change into contextualised practices within schools, and they are mobilised through translation, interpretation, and enactment by adaptive policy actors.

The contexts in which policy actors work have bearing on the nature of policy enactment, as do their position within these contexts. In New Zealand, the context for this study, school autonomy is such that each school board determines how—and to what extent—it will enact government policy (Organisation for Economic Co-operation and Development, 2013). Within the context of a school, policy actors are positioned in terms of physical location, school hierarchy, accumulated experience, and stage in their career; these factors afford them "different amounts and kinds of responsibility, [and] different aspirations and competences" (Ball et al., 2012, p. 69). The positioning of policy actors affects the type of role they can adopt and how they can act upon policy. Yet even when educators perceive constraints on their capacity to act, the indeterminate nature of policy offers potential for agency.

When policy enactment is conceived of as a creative process of recontextualisation, educators may become aware of their own potential to interpret and use policy to divergent ends. Policy actors have the potential to make deliberate interventions within their schools and communities through making policy that originates elsewhere relevant to their particular context (Ball et al., 2012; Singh et al., 2013). Yet much of the literature in this tradition reveals that policy is more likely to constrain educators rather than offering them the opportunity to use it strategically and agentically to further community needs and interests (Charteris & Smardon, 2018; Tilson & Sandretto, 2022; Unsworth, 2023).

An adaptive change lens helps us to imagine the possibilities of school-level educators having agency to serve as adaptive policy actors in times of crisis. Heifetz (2010) argued that "policies for 'leadership' must go beyond conferring extra authority or heaping greater expectation on those who occupy positions of public authority" (p. 72). Educators have agency as adaptive policy actors, not only when they themselves act upon policy but when they exhibit a "disproportionate amount of power" in policy processes so that others are influenced by their policy work as educators (Pratt & Dantas-Whitney, 2023).

The power to define policy through the stories educators tell about their schools is referred to in critical policy studies as policy narration (Maguire & Braun, 2019); yet there is no presumption that these stories are transformative. Policy narrators may enforce policies that are determined above or without sensitivity to local interests. As Stone (2002) notes, "Two broad story lines are particularly prevalent in policy politics: stories of change and stories of power" (p. 158). As such, "adaptive challenges demand leadership that can engage people in facing challenging realities and then changing at least some of their priorities, attitudes and behaviour" (Heifetz, 2010, p. 73). In this vein, educators acting as adaptive policy actors can draw on symbolic stories to "unite people around ideals" (Stone, 2002, p. 182); this is an especially important skill in times of crisis. However, others have noted how pressures exerted in opposition to policy arbiters' agency can transform their actions in undesirable directions (Waite & Wilkerson, 2023). Consequently, policy work means allocating limited resources and shifting power, just as adaptive leadership "must contend … with the various forms of feared and real losses that accompany adaptive work" (Heifetz, 2010, p. 74).

Shifting power manifests in three forms during policy enactment: (a) explicit uses of power, such as force, economic dominance, authority, and persuasion; (b) mobilisation of bias through implicit means that limit participation based on characteristics like race, gender, and class; and (c) shaping of consciousness, in which policy agents use symbols, stories, and myths to acculturate others into accepting where power rests (Fowler, 2012). This study explores in what ways postgraduate study enables educators acting as adaptive policy agents during times of crisis to shape the consciousness of their peers and school leadership teams, and what constraints they face. Before describing the study's methods and findings, we provide a brief synthesis of prior research on the role of postgraduate study in preparing educators to be adaptive policy actors.

Prior Research

The New Zealand setting for this study is somewhat unique, in that policy transmission goes directly from the government's Ministry of Education to schools, without the additional levels of policymaking found in most other locales (e.g., states, school districts). To that end, there is a paucity of research that can be applied to school-level policy enactment in the New Zealand context. Charteris and Smardon (2018) examined the agency New Zealand school principals can exercise in their interactions with policy initiatives. They argued that discourses of economic rationalism and change limit leaders' ability to act with agency and that, in the process, education policy "is becoming more tightly instructive—arguably at the expense of educator professionalism and community autonomy" (p. 38). These limits appear to be set early in an educator's career. In a study contextualised within an initial teacher education course in New Zealand that aimed to equip beginning teachers with the capacity to critique and destabilise policy, the course was found to be ineffectual at positioning the beginning teachers as policy agents, as most of them "found the expectation to conform to status quo policy enactments was overwhelming" (Tilson & Sandretto, 2022, p. 152). Even within systems that seek to give teachers greater agency, such as is apparent in policies for school autonomy, educators' actions are limited through "movements" or "directions" that constitute a form of non-statutory guidance (Unsworth, 2023). With these constraints in mind, we wondered whether postgraduate programmes might provide educators with greater agency to act as adaptive policy agents.

Beyond the New Zealand context, prior research on teachers as policy agents has often focused on engagement with policy related to classroom practice (Alfrey et al., 2017; Tilson & Sandretto, 2022; Wessell-Powell et al., 2019), rather than wider school or national policies. Studying the performance of various policy actors in Irish post-primary schools, Skerritt et al. (2023) suggested that middle leaders play an increasingly important role in the translation of mid-level or national policy on school improvement. While school principals and other senior leaders act as policy narrators, middle leaders are involved in the translation of initiatives, and it is largely those mid-level managers who are "doing high-profile policy work, turning ideas into actions and bringing SSE [school self-evaluation] to life in schools" (Skerritt et al., 2023, p. 580). Indeed, school-based policy actors during times of crisis embody adaptive leadership, in that their work "involves the clarification of values and the assessment of realities that challenge the realization of those values" (Heifetz, 2010, p. 76). The possibility of transformative middle leaders who can persuade others to work upon the exclusions and silences in policy discourses through recontextualised policy enactment holds great appeal during times of crisis.

There is a dearth of empirical studies evaluating the outcomes of in-service educators' professional learning in policy studies. One of the few existing studies (Ellison et al., 2018) elevated the voices of teachers in policy discourse through convening focus groups that provided "practicing teachers with secure spaces for professional collaboration and exchange to define policy problems and propose policy solutions that can contribute to larger public debates over schooling and education policy" (p.158). In another case, Reed et al. (1999) reported on the policy advocacy experiences of students enrolled in an education policy class at Auburn University in the United States. This class was conceptualised within a transformational leadership framework, and it advocated for educational leadership that developed and

communicated its vision while fostering change in the political and cultural organisation of the students' institutions. The course encouraged students to be actively involved in policy processes, and it focused on the policy needs for a statewide network of professional development schools. Students were engaged in a project that integrated theory and practice through study, consultation, and policy advocacy. The students reported changed perceptions about their roles, as well as feelings of empowerment that emerged from what felt like authentic action. Reed et al. (1999) concluded that, "If we believe that one purpose of education is to transform the learner, then we must seek ways to get our students actively involved in the real issues that affect our profession" (p. 15). Our study seeks to add to the higher education policy literature by examining the ways in which postgraduate study can enable educators to become adaptive policy actors in times of crisis.

Study Framework: Four Settings for Policy Actor Development

We conceive of the postgraduate programmes in our study context as situated in four interrelated settings, where students, as adult learners who are concurrently working professionals, may engage with new ideas. This analytic is developed from Pratt et al. (2015) who conceive of these settings both physically and in respect to the social meanings attributed over time by people to particular spaces. This framework consists of (a) a university setting which is normatively associated with master's education for this study, (b) a personal setting that extends to the internal and interpersonal world of the student, (c) a professional setting that includes professional associations and the education profession at large, and (d) a work setting associated with the site and community of the school (Pratt et al., 2015).

In our study, we investigate the extent to which ideas presented in postgraduate study were later evident in these overlapping settings. We were curious if when university settings overlap with the personal, work, and professional experiences of educators, these educators might be able to serve as adaptive policy actors in times of crisis.

Methods

As mentioned earlier, this qualitative study seeks to answer the following research question: "In what ways does postgraduate study prepare educators to serve as adaptive policy actors in times of crisis, and what are the constraints faced?" To answer this question, we recruited study participants who were graduates of two university-based postgraduate programmes and also currently employed in schools. Our sample of 11 educators was comprised of four middle leaders, four deputy principals, and three principals; they were mainly either new leaders or in-flux (transitioning into a new role at the time of the interviews). These participants were invited to take part in either an individual interview or a focus group. In both formats, they were asked open-ended questions (Merriam & Tisdell, 2015) about the policy course they took and whether, in their current professional roles, there were moments when ideas from the course came to mind. They also discussed ways in which they saw themselves acting as change agents around policy, whether there were ways in which they had become more attuned to the wider

education policy milieu, and to what extent they now saw themselves as a policy actor at their school. Four participants opted for individual interviews, with the remaining seven participating in three focus groups of two or three people. Table 1 provides an overview of the participants.

Table 1

Participant Roles at Time of Study

Format	Pseudonym	Current role
Interviews	Participant A	Deputy principal (DP) at an urban primary school. Just appointed principal at another primary school
	Participant B	DP at an urban secondary school
	Participant C	Newly appointed principal at an urban primary school
	Participant D	DP at an urban intermediate school
Focus Group 1	Participant E	Newly appointed principal at a rural primary school
	Participant F	Kāhui Ako* across school leader at an urban primary school
Focus Group 2	Participant G	Recently appointed principal at an urban primary school
	Participant H	Regional practice lead for network of educational services provider
	Participant I	DP at a regional intermediate school
Focus Group 3	Participant J	Middle leader at an urban secondary school
	Participant K	Sports coordinator at an urban secondary school

* *Note*. Kāhui Ako are communities of learning comprised of a cluster of schools who engage in professional learning. They are supported by the New Zealand Ministry of Education.

The interviews and focus groups were conducted by phone and over Zoom by a research assistant to maintain neutrality and in accordance with the ethics application approved by the two universities. Since we were the lecturers on the two courses, we aimed to remove any conflict of interest. Informed consent was obtained to record and transcribe the recordings; participants' names were removed before the transcripts were shared with the principal investigators.

Data analysis followed a multi-iterative thematic analysis approach (Braun & Clarke, 2022; Miles et al., 2018). The two principal investigators created an initial code list based on the four-part settings framework mentioned earlier to capture the four spaces where educators might engage as policy actors. Inductive sub-codes were then added during the second iteration of the coding process. For example, under the *a priori* code "work space", we added inductive subcodes such as "role_barrier", "island", and "peer perception" to capture the ideas generated during data generation. All transcripts were double-coded for consistency, with the principal investigators discussing discrepancies.

Findings

We present findings below according to the four settings for policy actor enactment: professional, workspace, university, and personal. We consider ways that postgraduate study enabled educators to serve as adaptive policy actors as well as the challenges they faced when enacting this role.

Professional Setting

Study participants reported that, in their professional spheres, they viewed policy as the purview of their school leader or school board prior to engaging in a postgraduate policy course. As Participant K put it, policies "sort of sit in a dusty folder … and nobody but the principal ever really looks at them". Participant I noted the cursory work done by their school board in reviewing existing policies:

> My experience was only ever watching boards review policy, which essentially, we would sit around the room, and everyone would come in and go, "No, no, we think it's fine", and then it would just roll over for the next three years.

This type of laissez-faire approach to policymaking would undermine the need for rapid action during times of crisis, whether in relation to enacting government policy or creating school-based policies. Participant A noted that, through the postgraduate course, they learned that "you're supposed to go through this process, put it out to the community". This new understanding equipped the participant to act as an adaptive policy agent; but as other participants told us, institutional barriers often prevented such action. For example, as Participant F noted, "My role definitely limits me as a change agent". This was a common sentiment among participants, although the postgraduate policy courses equipped them with knowledge of how to be adaptive policy agents, the institutional barriers of their positions limited their ability to do so.

Work Setting

The postgraduate policy courses provided participants with new knowledge to serve as adaptive policy agents. As Participant D reported:

> Our attendance policy was up for review … so I was like, "Right, I know exactly what we need to do". So I spoke to my principal, and I said one of the things we haven't done here in our school, that I'm aware of, is actually consulted with our community around having input into firstly really understanding what the challenges or the barriers are for getting your kids to school. And so we … ran a quick survey at a parent night.

In contrast to this example, in which the participant's school leader was receptive to the ideas presented, others reported that their positions posed a barrier to policy agency. As Participant E said, knowledge from the postgraduate courses also brought knowledge of the limits imposed by their work settings:

> I think I'm just a lot more aware of everything, so it's probably made that feeling a bit worse for me because I just know so much more, so the gap [between what I feel I could

do and what I am doing] … in terms of what my understanding of the gap is, it's better and it's bigger. The gap's bigger because of what I know.

Although postgraduate study equipped participants with the knowledge of how policymaking should proceed, it also revealed ways that this was not happening in work settings. As Participant K said, "I've never had a principal sit down and go, 'We need to look at this policy', let alone have a full understanding of the whole process of actual policy review and putting a policy into place". Principals in New Zealand schools serve on the school board, and as such, they have formal roles in the policy process. But since the other members of school boards are primarily parents or other community members, they may lack knowledge of how to effectively engage in the policy process. As Participant H noted:

> I'm limited to making recommendations to the principal, and then it's up to the principal as to whether she then takes that on to the board or not. Having that extra step is a bit frustrating for me because I know my principal hasn't done this [course], and so trying to explain to her that this is something, we've got to be a lot more robust around this, has proven quite challenging. … It's like hitting my head against a brick wall.

Participants in our study did not feel that their school leadership teams were purposefully preventing their engagement in the policy process; rather, they believed the teams often lacked an understanding of what should be involved. This left participants feeling like an "island", alone with their new knowledge. As Participant E put it, "In my current school now, I'd be the only one, I guess, that's done something of that sort of way of thinking". Participant J echoed this sentiment, noting:

> Probably one of the biggest challenges I found is that I'm the only one that's done this course in my school, and it would be really helpful if others had done it so that they actually understand what this process is supposed to be.

Although the postgraduate policy courses our study participants had undertaken provided them with new knowledge and skills to serve as policy actors, their work settings did not generally provide spaces for them to enact their new skills. Often, participants felt that they would be able to take a more active role in policy processes once they moved into a formal leadership position. As Participant C3 noted, "Moving into the principal's role, I'll definitely be in a better place to … [have us] go through a really robust process when we review and create policy". In this way, the knowledge from their postgraduate policy course was deferred until their positional authority was aligned with their new knowledge. Participants in leadership roles felt more equipped to serve as adaptive policy agents. As Participant D said:

> I can make a difference because I actually know what I'm looking for now, I guess, whereas before I don't think I did. … Now that I understand the stages and what it takes to write a policy or what you can do, it's been really beneficial to know that side of things, especially being in this sort of role now. … I believe for me personally, I think I'm looking at it differently now because I've got that knowledge that I went through in that [course]. I just feel because I know the stages of what it goes through to get a policy implemented, I don't think I would have had the same sort of outlook if I didn't go through it, I guess, being in that role now.

Participant E noted:

> Because I am like the leader of the waka [traditional Māori canoe], I guess, I think everybody would have a voice in [the policy] and I would hope that as a leader you would be able to kind of engage a multitude of voices, like a collective, I guess, knowing that everybody should be speaking into that, just because it sits … on our shelf, however it sits. I think it's given me more of an understanding of how important it is for everybody to have a voice into that and feeling like they can question and feeling like they can ask as to why or … when was that written? How long has it been since it's been reviewed?

Formal positions of authority in a school, coupled with the new knowledge gained from the postgraduate policy courses, equipped participants to engage their school communities in policy work. In this way, adaptive policy change could occur during times of crisis by including voices of all of the people involved.

University Setting

The participants communicated that the postgraduate policy courses made participants re-evaluate the purpose of policy. Rather than seeing policy as only mandates passed down from above, participants reported a new understanding that policies could be solutions to persistent problems of practice. As Participant C put it:

> I guess the epiphany I had was the word "solution". When you put "policy" and "solution" together, all of a sudden it kind of made everything click into place. I realised that policies actually come as a result of something, an issue, a problem, a challenge that you're facing in school. The policy solution is the process that you follow to actually really understand the nature of the problem and then put something in place that's designed to either alleviate it, mitigate it, [or] remove it altogether.

In addition to seeing how policies could be designed as solutions to problems, the postgraduate policy courses enabled participants to practice leadership through the course assignments, gain "bravery" to take part in policy conversations, and see how policy could be used to advance equity goals. As Participant G said:

> The video that we had to produce, like we were running a hui [Māori word for an assembly, gathering, or meeting], leading a hui … it really helped me to break it right down, and having that element of practicing your leadership within the assignment, that was really beneficial, and it's something I could use, to go back and use today for sure.

One utility of the coursework was to provide a safe space to "practice" such roles as policy agents before bringing these ideas to their work settings. As Participant D reported:

> [The presentation] assignment made me think about the part I play in policy as a teacher, purely by being brave and speaking up and inviting yourself into the conversation that you've normally had behind closed doors. … Part of my assignment I put around how the school board or the senior management could have invited teachers into that conversation, so as much as teachers were speaking out, part of their upset was that they weren't being

listened to, but a simple way around that is by inviting them into the conversation and saying, "What do you think?"

Finally, participants reported developing an understanding of how policy could be used to advance equity goals. As Participant B noted, "Policy is about equity and raising the education of Māori and Pacific students, and by ignoring it and trying to get around it and hope that it doesn't upset your status quo, nothing will change". The postgraduate courses provided a university setting where participants could begin to see how policies could be used to tackle persistent challenges and move toward serving historically underserved populations.

Personal Setting

Finally, the postgraduate policy courses gave participants a heightened awareness of policy in their personal settings—most notably, in the news surrounding the upcoming election in New Zealand. As Participant A said:

> My ears always prick up when I hear it on the news, and now with the election coming up, you're starting to hear them talk about their policies and releasing their policies. Now that I have a better understanding around [the policy process] … it's really interesting some of the policies that come out, especially education, for me, because I'm trying to think, "Well, if that's what your policy is, I'm really interested to know how you're defining the problem in order for you to get to that space as the solution".

As with the other settings, the new knowledge gained in the postgraduate policy courses did not always result in positive outcomes. Rather, as Participant C said:

> You listen to both political parties out there now, and they talk about their policy for education, and you go, "Well, I don't know who you've spoken to but it's certainly nobody that's working in my arena". You feel quite disconnected from that in many ways.

Being aware of the policy process also made participants aware of politicians' shortcomings in using, and abusing, their platforms to push through agendas divorced from those tasked with implementing the policies.

Discussion and Implications

Three main tensions arose from our data in relation to the ways postgraduate study might enable educators to serve as adaptive policy agents who can respond to and enact rapid policymaking in times of crisis. First, knowledge (not just position) enabled participants to identify as policy actors in their work and professional settings, but their schools posed structural barriers through role expectations about who engages in policy. With school boards setting school-based policy and deciding how to react to government policy, educators with the knowledge to engage in the policy process during times of crisis could be viewed as assets by their schools; but when structures limit their involvement, an opportunity is missed. For example, participants spoke of knowing that effective policymaking requires listening to diverse views; using such knowledge about how to respond to rapid policymaking during times of crisis could

enable a school to get the needed buy-in for new policies that might otherwise be controversial, such as mask-wearing during COVID-19.

Second, respondents reported that their postgraduate policy course increased their understanding of the policy process, but it also created "islands" when no one else at their school had done the same course. A common language can enable adaptive change; being a lone voice can constrain it. This is especially the case when the educator is not in a formal leadership role, as new information about how to best engage in policy processes may not be welcomed by the school's senior leadership team (SLT). In times of crisis, feeling like an island is particularly problematic, as such times—characterised by rapid policymaking amid uncertainty—require a unified response to the crisis.

Finally, respondents mentioned the tension between a greater understanding that equity goals can be advanced through school-based policies and the reality that this was possible only if the SLT is receptive. As noted at the start of this article, policy work means allocating limited resources and shifting power. Although adaptive policy agents may hope to shape consciousness of school-based inequities, those in power may work to mobilise bias through implicit means that limit participation. This can be particularly acute when such bias is mobilised against the very groups a policy is intended to benefit. Those in power may not want to shift the balance of power away from their base, thereby limiting the potential of a policy to advance equity goals.

These tensions offer lessons for postgraduate programmes for educators. Equipping students in these programmes with new knowledge and skills is necessary but not sufficient to enable them to enact such new knowledge and skills. One way to increase their SLT's receptiveness to their new ideas may be to cast the programme assignments specifically within their school contexts. For example, postgraduate students could be tasked with working with their SLT to identify a persistent problem of practice at their school, which the student would then focus on for their course assessments. The student would report on their ideas to their SLT, thereby positioning the SLT as an ally during rapid policymaking in times of crisis. Participants noted feeling like "islands" with their new knowledge of the policy process; engaging their SLT along the way could help develop a shared vocabulary. Then, whether reacting to a government policy or setting a school-based policy, that common vocabulary could be a tool used to unite around a shared mission and thus prevent students from feeling unsupported in their new understanding of what *should* be done. Postgraduate programmes should also consider the lesson from participants who found receptive SLTs. A course assignment could be designed for students to gather the voices of their school community around a problem so that this information could be used to frame an appropriate policy solution. Such a survey could then form the basis for school-based policymaking in times of crisis, given that the student has gained experience of similar data collection for the purpose of the course.

Finally, this small exploratory qualitative study offers several areas for future research. First, the study provides cross-sectional data from one point in time. Longitudinal studies are needed to gather data before and after postgraduate policy courses, as well as at later points in time, to see if postgraduate students further develop their roles as adaptive policy actors or if ideas from the postgraduate courses are diluted over time as job demands deplete their ability to try out new knowledge and skills. Quantitative data through a survey would enable a greater representative sample of students, whose data could be disaggregated by such factors as school

level (e.g., primary versus secondary), years in the position, and role. Finally, national and international studies are needed to understand how postgraduate programmes equip educators to serve as adaptive policy actors in settings beyond Auckland. Do educators in more rural areas of New Zealand face similar tensions in enacting this role? Do educators in multi-layered bureaucracies such as the United States find different challenges to engaging in the policy process when their school sits under the additional policymaking bodies of school district and state boards? Do adaptive policy actors need a different set of skills in such situations, such as being able to determine when to enact a new policy and when to obstruct it if it is deemed unfit for the local context?

The rapid policymaking that occurred during the COVID-19 pandemic is likely a test case for future times of crisis. Another global pandemic may draw on lessons learned from the COVID-19 pandemic, but the uncertainty of future crises requires the ability to adapt as needed. In what ways might adaptive policy actors need to navigate new crises in coming decades, such as climate-related disasters, civil unrest, or unanticipated challenges brought about through artificial intelligence? Postgraduate programmes clearly have a role in equipping students to serve as adaptive policy agents through new knowledge and skills that are developed in the university setting and translated into personal, professional, and work settings. Understanding the institutional barriers to the formation of policy agency can equip postgraduate programmes to better prepare students for the opportunities as well as the challenges they may face.

Competing Interests and Funding

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Understanding Change Through the Lens of Paradoxical Tensions

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ABSTRACT: Education change is tension-filled, with many seemingly contradictory demands and intractable problems pulling and pushing leaders in an emotional tug-of-war. Within these tensions lies a transformative potential for adaptive change; yet this potential will only be realised if leaders respond productively to tensions between these seemingly contradictory or paradoxical elements (e.g., stability and change, connection and autonomy). Productive approaches to paradox involve balancing or integrating the contradictory elements of the tension, rather than adopting a one-sided or either/or approach (Smith & Lewis, 2011), which can tip organisations into crises if it predominates. While there is robust theoretical and empirical literature on paradox theory in business, its relevance in education is less well understood (Schaap & Vanlommel, 2024). This study examines if and how leaders' approaches to tensions impact the degree of adaptive change in schools. It applies the literature on paradox theory to explore how leaders in two New Zealand secondary schools approach three tensions as they coordinate their whole-school change agenda. The findings show that one-sided approaches to tensions produced linear, routine approaches to organising change. This limited systemic, adaptive approaches necessary for substantive whole-school change. The implications for adaptive leaders' navigating paradoxes as change unfolds through the layers of educational organisations are explored.

Introduction

Adaptive leaders transform schools by addressing thorny, seemingly unsolvable problems—complex problems that butt up against people's entrenched beliefs and require the school to disrupt its status quo (Smith & Lewis, 2011). Such transformative change is tension filled. Tensions, in this article, have a specific meaning: They are choices between two options that appear in opposition, and yet, paradoxically, both are necessary if an organisation is to achieve its mission (Smith & Lewis, 2011). Consider the paradox between change and stability.

Schools can get caught in a tug-of-war between change and stability, flip-flopping between the two and failing to advance transformative change. Zeroing in on change might drive leaders to hastily innovate to fulfil students' current and future demands, thereby inadvertently overwhelming teachers and undermining the very stability that enables dependable and efficient delivery to their current students. In contrast, focusing primarily on stability could stifle change, holding schools in status quo patterns that increasingly become outdated for the students they serve. Flip-flopping between the two sides of tension wastes schools' resources and does not capture the transformative synergies on the dynamic continuum between the two.

A productive response to the change–stability tension that has greater transformative power is creating conditions for *both* change *and* stability. Both/and approaches to tensions realise the mutual synergies between the two sides: stability requires change, and change requires stability—they are two sides of the same coin. These approaches absorb the paradox's contradictions and synergies (Smith & Lewis, 2011), realising that embedding and sustaining change requires stabilising activities, such as establishing change continuity and routinising changes. Adaptive leaders embrace these enduring tensions (Heifetz et al., 2009), which involves creating conditions for their organisation to integrate and recognise the benefits of both sides of the tension (Smith & Lewis, 2011).

Failure to integrate tensions is likely to precipitate crises. Not capital "C" crises originating from exogenous shocks like COVID-19 or natural disasters but those that we precipitate by focusing on one side of a tension at the expense of the other (Richardson, 1995). Schools may be too reactive, too autonomous, or too top-down; and too much one-sidedness constrains behaviour to the extent that a school's capacity to respond to complex problems is depleted. Mehta and Datnow (2020) provided a fine example of this one-sidedness in their exploration of how schooling has become too conservative and tied to societal norms about what schools should and should not be. This one-sided approach of conserving the "grammar of schooling" has precipitated a crisis of low student engagement and inequity.

Tensions and schools' responses to them are understudied (Le Fevre et al., 2021; Schaap & Vanlommel, 2024). This article explores how school leaders' actions affect three tensions (change–stability; connection–autonomy; challenge–support) that are central to advancing adaptive change. In the rest of this introductory section, I define tensions and explain the mechanisms by which they emerge in organisations. This includes explaining organisational theories that are the basis for tensions and inform this study's thinking about the nature of change in complex organisations like schools. I then examine adaptive change, including several tensions that require integration if schools are to be transformed.

Tensions

Tensions are often identified as central forces in school change. Tensions affecting change include those between internal and external accountability demands (Honig & Hatch, 2004; Le Fevre et al., 2021); discipline and ambiguity in inquiry (Biag & Sherer, 2021); and (in reform) the practice of constraining teachers to embed essential elements and allowing them the freedom to adapt to context (Cannata & Nguyen, 2020). While researchers agree that educators' responses to tensions can make or break systemic school improvement, much educational research explores

specific tensions, rather than how tensions play out more generally in schools (Le Fevre et al., 2021; Schaap & Vanlommel, 2024).

Paradox theory, which was developed primarily through research in the business sector, explains tensions as dynamic forces in complex organisations (Berti & Cunha, 2022; Smith & Lewis, 2011; Tsoukas & Cunha, 2017). Within paradox theory, "tensions" is the overarching term used to describe elements in opposition, which are labelled variously as dilemmas, trade-offs, and paradoxes (Berti & Cunha, 2022; Smith & Lewis, 2011). Paradoxical tensions, which are the focus of this article, contain "contradictory yet interrelated elements" (Smith & Lewis, 2011, p. 386). The contradictions and interdependence of the paradoxical elements, or poles, of the tension heighten emotion (Jarzabkowski et al., 2018). Actors caught between the synergies and opposition of the poles may feel anxious and perplexed as they try to make sense of how the poles pull and push with and against each other (Berti & Cunha, 2022). Less emotion is felt for non-paradoxical tensions, like trade-offs, because the independence of the elements allows for relatively straightforward choices between the options. In contrast, paradoxical tensions cannot be solved; choices are not either/or (Smith & Lewis, 2011); they are undecidable in the moment and over time (Berti & Cunha, 2022).

Unsolvable paradoxical tensions, referred to as tensions from this point forward, require *both/and*, not *either/or* thinking (Smith & Lewis, 2011). Both/and approaches require integrating and dynamically balancing aspects of both poles to maximise their benefits (Smith & Lewis, 2011). For example, in education systems, there is a tension between collaboration AND autonomy, yet both are required for systemic transformation (Fullan et al., 2022). Collaboration during change creates opportunities for people to connect and learn together, thus creating the conditions for more substantive learning, coherence, collective efficacy, and trust. Conversely, autonomy is essential for teachers to own changes and to be empowered to adapt them to meet students' needs. In their article on "connected autonomy", Fullan et al. (2022) drew on both/and thinking to arrive at a paradoxical approach realising "the dynamic equilibrium of being simultaneously autonomous from and connected to others. Connected autonomy is not a continuum but rather a single dynamic state that is always navigating the forces of connection and autonomy" (p. 329). Connected autonomy as a both/and approach seeks to maximise the benefits and minimise the disadvantages of connection and autonomy.

Paradox theory is underpinned by an understanding that organisations and change are complex. This contrasts with traditional theories that described organisations as rational and controllable, with solid causal relationships between action and outcome (Smith & Lewis, 2011). Think of strategic planning and change management, where change is controlled by leaders at the top who define a recipe of linear steps for others to follow. Later theories let go of the delusion that change is predictable and linear and can be managed top-down; instead, they looked to explain the messiness and unpredictability of change. For example, contingency theory recognised the significance of how situation and context heavily influence outcome, and it defined more nuanced if–then causal assumptions that stipulated the necessary conditions for a change to work in a particular context (Smith & Lewis, 2011). Subsequently, theories, including paradox theory, have built on the contingency approach and have sought to understand more complexity in organisations. Complexity emerges from systemic patterns reflected in the circular

and dynamic interrelationships between system components as organisational activity unfolds (Marion, 2012; Tsoukas & Cunha, 2017).

In these theories, change outcomes and tensions emerge from the dynamic interconnections among its system components. A school as a system comprises a web of interrelating components (parts and people), each performing particular functions—for example, a classroom performs the function of learning. And yet, a classroom is not simply a part of a system but a system in and of itself, which is comprised of other parts (e.g., teachers, students, materials). Also, a classroom cannot fulfil its function independently; it interrelates with and relies on the functioning of other parts of the school system (e.g., teacher professional learning and assessment). Thus, a school system comprises a complex web of nested and overlapping activity across many sub-systems or parts, and it is from this complex web of activity that unpredictable and unexplainable outcomes and tensions emerge or materialise (Marion, 2012).

In a school as a system, change outcomes and tensions emerge from the interdependent and reciprocal activity of actors. Thus, tensions are not some abstract force separate from actors' actions, but constructed and reconstructed through their practice (Jarzabkowski et al., 2018). Following Jarzabkowski et al.'s (2018) lead, in this study, tensions are deemed to be constructed and reconstructed through leaders' and followers' practices and non-practices of organising change (i.e., what they do and don't do and say). Through their practice, actors construct and reconstruct multiple interconnected tensions over time (Berti & Cunha, 2022; Jarzabkowski et al., 2018; Tsoukas & Cunha, 2017).

Tensions in Adaptive Change

Central to adaptive change is a tension between conserving AND dismantling parts of the school system so students can thrive in the current environmental conditions. Integrating this tension involves balancing technical AND adaptive problem-solving (Heifetz et al., 2009; Uhl-Bien & Arena, 2018). *Adaptive problem-solving* stretches people's capacity because it demands a rethinking of beliefs and normative routines. Adaptive problem-solving is contrasted with *technical problem-solving*, where people diagnose and solve problems using their existing know-how and organisational routines (Heifetz et al., 2009). Treating all problems as *adaptive* stresses the organisation because it challenges every aspect of what works, placing too many innovation demands on it and stretching and fragmenting resources. However, if all problems are categorised as *technical,* the status quo holds, and organisational arrangements become increasingly ill-suited to environmental and stakeholder demands. In sum, adaptive leaders must continually balance the need for innovation and exploration to pursue new capabilities AND conserve and exploit existing fit-for-purpose capabilities (Heifetz et al., 2009; Uhl-Bien & Arena, 2018).

Organisations with adaptive capacity learn and improve in the dynamic space between exploiting/conserving AND exploring/innovating (Heifetz et al., 2009; Uhl-Bien & Arena, 2018). Thus, central to adaptive capacity is organisational learning of two types (Uhl-Bien & Arena, 2018). One is exploratory learning, which involves engaging with novelty and diversity to identify and experiment with innovations that will transform the existing system. The other type of learning is exploitative learning, which involves selecting existing knowledge, processes, and

tools that serve the system well and then, exploiting them through refining, broadening, and embedding them (March, 1991). Uhl-Bien and Arena (2018) argued that, while the tension between exploring and exploiting is paradoxical, people naturally resist change, thereby maintaining organisational stability, exploitative learning, and efficiency. Accordingly, the literature on adaptive capacity often explores how leaders build organisational resilience and system capacity to engage with complex adaptive problem-solving and explorative learning.

As schools engage in adaptive problem-solving and explorative learning, they will encounter further tensions. One relates to keeping the degree of disequilibrium (Heifetz et al., 2009) and conflict (Uhl-Bien & Arena, 2018) tolerable by balancing the degree of challenge AND support. Adaptive change involves challenging people to engage with adaptive problems that butt up against their entrenched beliefs and require them to take risks as they let go of existing practices and experiment with new ones. However, too much challenge can force the degree of disequilibrium and conflict to intolerable levels, forcing people to the point where they are too overwhelmed and defensive to learn (Heifetz et al., 2009; Uhl-Bien & Arena, 2018). Keeping conflict and disequilibrium in the tolerable zone so that it is "adaptive, rather than disengaging" (Uhl-Bien & Arena, 2018, p. 99) requires providing support as well as a challenge. Support comes in many forms; it may be through professional learning or expertise that enables people to engage competently with the problem at hand. It may also come in the form of structures and conditions for connecting around problems in safe and trusting ways so people are more likely to take risks (Heifetz et al., 2009; Uhl-Bien & Arena, 2018).

As this outline of the literature on tensions and adaptive change illustrates, change work is tension-filled. In leading adaptive change, leaders are constantly working through tensions related to the degree and types of changes with which their schools engage (e.g., change–stability, adaptive–technical problem-solving, explorative–exploitative learning). Then, as change unfolds, leaders encounter other tensions related to how to organise change and learning in their context, such as balancing connection AND autonomy or challenge AND support. This study explores three tensions of organising adaptive change in two secondary schools, and it maps how tensions emerge dynamically through the actions of leaders and their followers as they organise change through the organisational layers. It seeks to explore how educational leaders approach paradoxes (both/and and either/or) and the subsequent impact of these approaches on change outcomes in the two secondary schools.

Methods

This research used a qualitative explanatory case study approach (Yin, 2009) examining how leaders' approaches to tensions impact the degree of adaptive change in their organisations through two questions: How do leaders approach tensions as they organise change? And what are the implications of these approaches for adaptive change? The analysis focused on three common and interrelated tensions (change–stability, connection–autonomy, and challenge–support) in two cases of New Zealand secondary schools coordinating their improvement agendas.

This research was undertaken in line with university ethics guidelines. Accordingly, all participants consented to participate and the identity of organisations and individuals is protected through the use of pseudonyms.

Schools

River Valley and Eastview secondary schools (pseudonyms) were selected based on their similar demographic characteristics. The two schools served Year 9 to Year 13 students in urban settings, had similar role sizes (between 1,100 and 1,500), and drew from school communities in the lowest 30% socioeconomic status relative to other schools in New Zealand.

Data Collection

Data were collected over an 18-month period to understand the practices used to organise change in each school and their subsequent impacts. The primary focus was understanding the practices used by the senior leadership teams (SLTs), whose positions and authority equip them to drive and coordinate whole-school change. A secondary focus was on leadership practices emerging as change unfolded through the organisational levels. Data were collected through interviews, meeting observations, and change artefacts. Meeting observations and change artefacts were used to triangulate interview findings and gain insights into informal exchanges.

Interviews

In-depth, semi-structured interviews (Given, 2008; Yin, 2009) were conducted face-to-face with senior leaders, middle leaders and teachers for approximately 90 minutes. Initial questions were written by the researcher and then iteratively improved through critique with research colleagues and testing with two members of a school faculty. Questions focused on understanding each person's perception of the improvement agenda, the practices for organising it, and the subsequent change impacts.

In addition, students and caregivers at each school were interviewed for approximately 30 minutes to recount their experiences participating in one particular change common to both schools: an academic counselling initiative. All students (aged 16 and over) were interviewed in groups of two, whereas caregivers were given the choice of participating individually or with familial support. Table 1 shows interview participants at the secondary schools.

Table 1

Interview Participants

Participants	River Valley	Eastview
Senior leaders	4	4
Middle leaders	7	6
Teachers	5	7
Students	15	15
Caregivers	17	18

Meeting Observations

The researcher conducted direct observations of meetings (Yin, 2009) used to organise change, including school-wide professional development meetings, professional learning community meetings, and improvement team meetings. Five such meetings were observed at River Valley and seven at Eastview. These were observed over a period of 12–18 months. Field notes were taken during and immediately following meetings to capture the exchange patterns in meetings.

Change Artefacts

Documents used to record and coordinate improvement were collected from each school, including school charters, communications materials, templates, and tools to coordinate change routines and meetings.

Data Analysis

Data analysis involved coding to identify how leaders constructed and reconstructed tensions as they organised change and their subsequent impact on change outcomes. Throughout the analysis, the researcher considered the degree to which data sources aligned and traced causal patterns between practice and outcomes as change unfolded through the organisational layers. For instance, data from the interview participants and meetings were triangulated to understand the degree of variance between leaders, teachers, students, and caregivers' opinions so that theories-in-use, not espoused theories, for organising change could be derived (Argyris & Schön, 1974).

Multiple rounds of deductive and inductive coding were conducted in NVivo 10 and 11 (Creswell, 2018; Yin, 2009). In the first coding round, I sought to understand the tensions leaders constructed and reconstructed through change, using Smith and Lewis's (2011) paradox types as parent codes. This analysis revealed that leaders, consciously and unconsciously, engaged with numerous tensions as they sought to organise change, which enabled other paradoxes to be inductively derived and identified as sub-codes. To keep the scale of the study manageable, three central tensions were selected (change–stability, challenge–support, and connection–autonomy) because they appeared to best explain the change outcomes observed in the schools and allowed cross-case analysis of how the school's different approaches to tensions affected change. In the second coding round, I re-coded the data for each tension, identifying the practices and subsequent change impacts (e.g., impact on change progress, degree of change) of those practices.

Trustworthiness

The following strategies (Merriam & Tisdell, 2016; Yin, 2009) were used to assess the accuracy of the qualitative data, as well as the analysis and interpretation within and across cases.

Member Checking

All interviews were audio recorded and transcribed verbatim before being sent back to interviewees for revision if required. Disconfirming and confirming evidence of organisational practice and outcomes of change were iteratively sought throughout data collection. Furthermore, towards the end of data collection, two data-checking meetings were held with senior leaders. The purpose of these meetings was to engage in a critical dialogue to check the accuracy of the researcher's understandings, including their explanatory accounts.

Triangulation

Multiple sources of data and perspectives from actors at various organisational layers enabled collaboration and convergence of evidence (Yin, 2009).

Limitations

While this study's paradoxical lens contributes to our understanding of educational change through two in-depth case studies, the findings from the cases are not generalisable. For example, a school's history, culture, and environmental conditions affect how people act and respond, leading to unpredictable effects. It could be that the similar leadership practices might promote adaptive change in one context and not another. Accordingly, paradox and adaptive change theory is drawn on throughout the findings and discussion to make sense of the explanatory findings. Another limitation is that paradoxes typically form and reform in unpredictable ways over significant periods of time (Jarzabkowski et al., 2018; Smith & Lewis, 2011). While data were collected over an 18-month period, an extended longitudinal period would have strengthened the causal assumptions made between leaders' approaches to tensions and their change impact.

Findings and Discussion

For the three tensions (change–stability, challenge–support, connection–autonomy), leaders' practices typically led to more either/or than both/and approaches (Smith & Lewis, 2011). Leaders often did not dynamically integrate tensions to realise the synergistic dualism between the poles.

Figure 1 shows the extent to which leaders' practices led to the balancing of the poles at the end of data collection. A balanced scale illustrates a both/and approach, where leaders integrated the poles to achieve synergistic benefits. For example, River Valley's change–stability scale is balanced, indicating that leaders' practices allowed the balancing of change AND stability. On the other hand, an unbalanced scale indicates that leaders' approach to organising change led to a focus on one pole more than the other. For example, River Valley's challenge–support scale is unbalanced, indicating that leaders' practices focused more on supporting teachers to change than challenging them to aspirational standards. Although scales are fixed at a point in time, they are best imagined dynamically teetering in response to the emergent practice

of leaders and followers. Also, as the case write-ups demonstrate, approaches to tensions dynamically shifted over the 18 months of the study as leaders constructed and reconstructed tensions through their practices of organising change with followers.

Figure 1

The Degree of Balance at Each School for the Three Tensions at the End of Data Collection
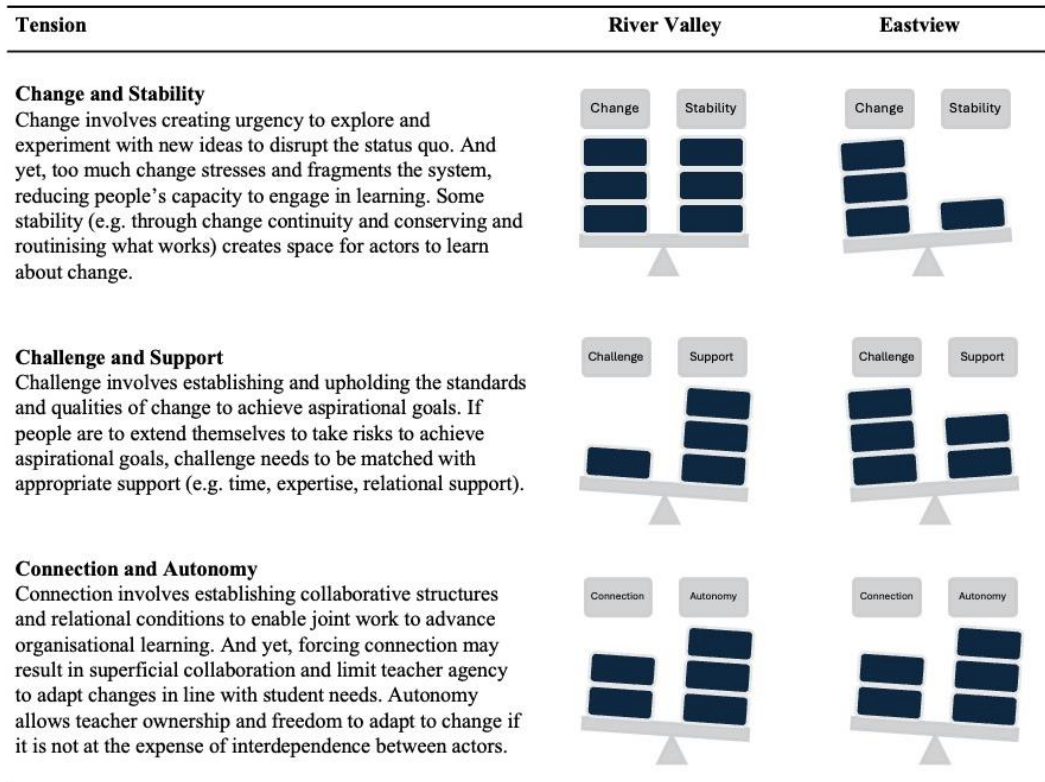
The rest of the findings and discussion section is structured as follows. First, the school cases are presented to demonstrate how leaders constructed and reconstructed the three tensions as they organised change, as well as the subsequent impact on change outcomes. To make sense of the nuances of each tension and the complexities related to integrating the synergistic interdependencies between the poles, the literature is used to explain how practices led to more or less one-sidedness. Each case includes a brief summary explaining how the three tensions interrelated and overlapped to produce the change outcomes observed. Second, a cross-case analysis is conducted to compare approaches from across the cases and to consider how leaders' approaches to tensions affected adaptive change.

Case One: River Valley School

River Valley: Change–Stability Tension

River Valley's SLT's coherence and mutual trust were a prior condition that enabled them to integrate the change–stability tension. The SLT cohered around their shared theories of improvement, which outlined the mechanisms by which their initiatives would achieve their goals, and in their mutual ownership and leadership of the entire school change agenda.

The SLT dynamically balanced the change–stability tension by making many micro-decisions that integrated the change required to advance their shared strategic direction AND the stability necessary to ensure teachers had sufficient learning time to advance change. The SLT propelled change by holding firm that their four change priorities were non-negotiable, which prompted the realisation, as one teacher put it, that things were "really going to change the way we do things here". At the same time, the SLT created stability by listening and responding to teachers' workload complaints and then flexibly adjusting and reprioritising change aspects in line with emergent feedback. Thus, while some teachers' change capacity was stretched, teachers also acknowledged that the SLT took their workload concerns seriously. Integrating the change–stability tension created both change impetus and continuity so that the degree of change was challenging yet manageable.

A closer examination of the SLT's approach revealed that balancing the change–stability tension involved them continually adapting changes and priorities in line with emerging evidence of the systemic impacts of change. Heifetz et al. (2009) explain that adaptive leaders move between the dance floor (to participate in change activity) and the balcony (to step back in order to observe and respond to systemic change patterns). The SLT did just this. On the dance floor, they worked alongside teachers and students to make sense of the inevitable change hurdles and setbacks before moving back to the balcony to adjust changes and priorities. Acting from the balcony and with systemic awareness meant the SLT did not react to change hurdles with quick fixes that often contribute to change overload (Greene & Kramer, 2020). Rather, they responded to hurdles with a particular awareness of the larger systemic patterns affecting problems from the dance floor. For example, when the SLT found that some students were not connecting their academic goals and post-school aspirations, they adjusted their priorities and aligned changes across counselling, pastoral care, and career services. Consequently, more students started seeing the relationship between what they did at school and their post-school aspirations. For instance, one student said that alignment between his subject choices, academic goals, and work placements motivated him to try harder at school. Thus, refining changes and priorities with an awareness of their system's interconnectedness allowed the SLT to ensure the change was more impactful AND teachers' workload manageable.

In sum, the SLT continually balanced the change–stability tension through microdecisions guided by their coherent direction and emergent evidence from their system. As I examine next, the SLT practices led to a more one-sided approach to the connection–autonomy and challenge–support tensions. Consequently, the time that the SLT released for teachers to participate in change was not leveraged to propel profound changes at the instructional core.

River Valley: Challenge–Support Tension

To develop system capacity, the SLT applied a support–first approach. Supporting, for them, equated to establishing and continuously improving the means (i.e., resources, processes, and tools) to achieve particular ends or capacities (e.g., student-centred decision-making, improved literacy). Yet, as this research and Elmore's (2004) suggest, capacity building requires equal parts support and challenge—they are reciprocally interwoven—and challenge was often weak. The degree of challenge eased when leaders introduced processes and tools but failed to clarify how teachers should use them or when. Therefore, the means often became the end in itself rather than the means toward enhanced capacity. For example, it took the SLT two years of concerted effort to establish and continuously improve the means for distributed evidence-based decision-making (e.g., evidence, inquiry processes, evaluative and facilitation knowledge, and skills). During those two years, senior leaders introduced processes and tools but often did not stipulate that teachers should use them, and if so, how, to facilitate improvement. Instead, senior leaders spoke about "flicking out" new processes and tools in the hope that faculty might give them a go. By not specifically challenging teachers to apply, evaluate, and learn if the means worked, and if so, how, sometimes the means went unused. When teachers chose to use the means, they learnt but in pockets depending on factors like their individual skills and dispositions and local conditions. In sum, capacity development, from the significant work to establish and continuously improve the means, was highly variable because challenge and support were not reciprocally interwoven.

This high support approach, which involved the SLT devoting themselves to continuously improving the means, was highly valued by faculty and advanced significant technical changes to structures, processes, and tools, but not so much adaptive change. Leaders and teachers reported many stories of the technical refinements the SLT had made to initiatives, like improving process flows, rescheduling events to reduce administrative hassles, and enhancing evidence so it was more user-friendly for students and teachers. Interestingly, some of these technical refinements sought to increase the degree of challenge by addressing variable change uptake and quality. For example, when parents reported the variable quality of academic counselling, senior leaders introduced additional training, e-mailed and communicated standards to teachers, updated templates that required teachers to fill in specific boxes, and stuck notices on classroom doors so that parents knew the three specific outcomes they should expect from an academic counselling session. Teachers reported that such clarifications were helpful. However, these refinements often focused on improving the "nuts and bolts" or core elements of initiatives. Also, by doing for rather than with teachers, teachers were not challenged to consider how their beliefs and practices might need to change to improve outcomes. Consequently, adaptive change was limited.

To create more adaptive change throughout River Valley, teachers needed to collectively engage in what Loughran (2019) refers as pedagogical reasoning or "to unpack their teaching in order to show others what they know, how and why" (p. 523). However, teachers often did not engage in "robust pedagogical discussion", and consequently, as a teacher explained, it was not possible to know "whether or not we're doing it in a really good way, in a way that leads to better outcomes, I don't know". Collective standards and expectations were not shared amongst

teachers. Furthermore, by supporting too much, the SLT had created a reliance on them to solve the problems of change—to provide both the challenge AND support. Adaptive change is distributed (Heifetz et al., 2009; Uhl-Bien & Arena, 2018); challenge is best integrated with support in a web of faculty relationships.

River Valley: Connection–Autonomy Tension

Autonomy over connection was allowed to persist at River Valley. The primary reason for pervasive autonomy was that collaboration patterns allowed people to maintain their independence rather than work interdependently. Little (1990) observed that independent forms of collaboration involve teachers engaging in the superficial sharing of stories and resources. Shifting from these superficial patterns, predicated on privacy and independence, to ones where autonomy coexists with interdependence requires teachers to collaborate in work that requires genuine interdependence, such as solving shared problems or jointly evaluating the impact of changes.

Independence persisted in spite of the SLT's best efforts to connect people. Over the previous two years, the SLT had introduced many collaborative structures to connect people, vertically and laterally, in the work of advancing change at River Valley (e.g., boundary-spanning roles, change governance forums, evidence-based review routines, and professional learning communities [PLCs]). However, apart from a few isolated examples, the collaboration was superficial and allowed independence to persist. Three reasons appeared to explain the prevalence of independence.

The first reason for independence persisting was the SLT's propensity to focus teachers' collaboration on the technical or "nuts-and-bolts" aspects of change. Such structural and administrative topics did not require teachers to break norms of privacy or engage in mutual problem-solving for an extended period of time. For example, the SLT asked teachers for general feedback, like "Is this helpful? Is this not helpful?" or to generally comment on the structural aspects of improvements, like schedules, data reports, guidance documents, and templates. Such non-evaluative questions allowed teachers to provide independent feedback on the efficacy of structures and tools. Over time, the SLT encouraged a gradual shift from technical topics to more conversations about the complex realities of educational change. However, these conversations allowed teachers to maintain their independence from each other in solving problems of change.

The second reason that independence persisted was that meetings often stopped short of interdependent problem-solving. As one middle leader said of meetings at River Valley:

> I think the senior management team here is very good at understanding if people [teachers] are feeling frustrated or knowing what might be difficult about something … But … our meetings aren't designed at all for an opportunity to solve.

This pattern of stopping short of problem-solving was observed in a meeting to review literacy improvement in departments. Departmental literacy coordinators shared their respective successes and failures with each other and a senior leader. While the coordinators shared rich data on the problems and causes of literacy improvement, the senior leader facilitating the meeting wrapped it up by telling literacy coordinators to come to them for help. Thus, literacy

coordinators were absolved from engaging in interdependent work to analyse the problems, their causes, and potential next steps, and independence was allowed to prevail. While it is not realistic in schools to expect all problems to be solved in collaborative forums, too often genuine interdependent work was not required, and norms of autonomy persisted.

The third reason independence prevailed was insufficient trust. The change forums were relatively new, and as research shows, it takes time and experience working with others to respect their competence and integrity in order to engage in genuinely interdependent work (Bryk & Schneider, 2002). Even when forums were designed to open up teachers' practice to scrutiny, facilitators allowed the walls of privacy and independence to be upheld. For example, in PLCs designed to engage teachers in joint work to evaluate the relationship between teaching and learning, teachers shared ideas by brainstorming literacy strategies and then trialling strategies of their choice—independently—in their classroom. This type of superficial sharing maintained patterns of privacy and independence; teachers were absolved from opening up their practice and engaging in interdependent work to evaluate the utility of strategies and their relationship with learning.

River Valley: Case Summary

River Valley's case shows that it is not sufficient to integrate one tension (change–stability), as more one-sided approaches to challenge–support and connection–autonomy tensions slowed the pace and degree of adaptive change. Furthermore, this case demonstrates that some tensions, namely change–stability, can be integrated top-down or centrally. However, it appears to be difficult or perhaps impossible to integrate others centrally, namely challenge–support and connection–autonomy. Integrating these tensions appears to require distributed activity of actors at multiple levels.

Case Two: Eastview

Eastview: Change–Stability Tension

The balance between change and stability shifted toward change over the 18 months of data collection. Changes were initially instigated by the arrival of a new principal and deputy six months before data collection commenced. The new SLT immediately established four new school-wide initiatives. Each school-wide initiative was coordinated through a design team comprising one SLT member and selected teachers, who each established a professional learning community (PLC) as a vehicle for teacher learning and improvement as changes were introduced. The deputy principal responsible for coordinating school-wide change said that the degree of change was manageable because teachers would cycle through the four PLCs in four years (one per year) in any order of their choice.

However, the change workload became less manageable for teachers over the next year because senior leaders, in their urgency to make a difference, added to the change agenda. They decided to accelerate the pace of implementation of one of the four initiatives by implementing it school-wide and introduced three new mini-initiatives to fix existing processes in appraisal,

student subject options selection, and to support students at risk of missing qualifications. In addition to having a significant improvement agenda in real terms, initiatives were siloed, adding to the teachers' cognitive load due to fragmentation and clutter. Silos occurred in part because the SLT was yet to agree on the relative priorities of initiatives and interrelationships. Consequently, teachers heard mixed messages on what mattered, and at school-wide change meetings, each initiative competed for teachers' attention rather than being amalgamated into a cohesive plan to transform Eastview. The principal knew that integration needed to be the next focus, as this quote indicates:

> Next, we need to embed and consolidate [the four initiatives] rather than add anything. From my perspective, that is going to be one of my key jobs. Because the four areas have all really passionate, professional, and knowledgeable staff learning those areas, sometimes they lose perspective of the big picture because they are so passionate and involved within their area.

Over the next 12 months more leaders and teachers reported being overloaded. Faculty members reported changes hitting them with a relentless stream of meetings, e-mails, and paperwork, and they mentioned changes "being rushed through with not much consultation". People were struggling to determine priorities. Adaptive change requires balancing what to conserve and what to change; otherwise, the disequilibrium becomes intolerable, and people's capacity to engage in change subsides (Heifetz et al., 2009). As we will see next, a combination of change overload and high challenge was causing some teachers to disengage.

Eastview: Challenge–Support Tension

Challenge over support was emphasised at Eastview. The SLT demanded high performance from faculty in pursuit of their ambitious aspirations for students. The SLT reinforced their high expectations by setting challenging targets and deadlines, monitoring performance, and not allowing teachers to explain away non-performance. For example, in one school meeting, successive SLT members reiterated the requirement to lift performance—one SLT member said poor cohort results were "not good enough"; the next said that all teachers must be capable of teaching that extended top students, and so on. While the high standards and "watching" concerned some teachers who worried they could not live up to the SLT's expectations, for other teachers and middle leaders, it was refreshing. Senior leaders provoked a sense of disequilibrium (Heifetz et al., 2009)—not performing was unacceptable.

As changes were designed, the SLT supported teachers to meet their aspirational standards. However, support weakened as changes were introduced and unfolded through the organisational layers. In design, senior leaders negotiated support with teams to match increments of challenge. However, as change unfolded and the degree of change and fragmentation escalated, senior leaders negotiated less, expecting teachers to use the existing guidance, training, and PLCs as support. As a consequence, the degree to which teachers learnt about change and altered their practice was highly variable. Some more capable and experienced teachers coped by using the existing supports and often worked extra hours to learn new changes. However, those with less capability, experience, and available time learnt less and complied

more. People described doing a "minimal" amount for each change, "ticking boxes", or executing changes in ways incongruent with their original intent. The significant change workload and unconditional pressure combined to the extent that some teachers were stressed or "shut down".

At a certain point, perhaps under pressure themselves, the SLT appeared to stop thinking paradoxically, and they became less open to listening to the teachers' feedback that the support provided was insufficient for many to achieve the SLT's high standards across the change agenda. For example, in response to hearing that many teachers were asking for more support and guidance to implement a change, one senior leader said, "Our attitude is, well, if you don't have those skills, you need to get them because that is what teaching is about". Such comments suggest that the SLT became less open to understanding how challenge and support interwove to propel learning.

Eastview: Connection–Autonomy Tension

While initiatives at Eastview were siloed, the PLCs provided structures to connect teachers within the silos. Furthermore, within the PLCs, mechanisms, such as requiring shared goals and joint evaluation of changes, were introduced to increase interdependence between teachers. However, because PLCs were in an early development phase, the degree of interdependence was still mixed. While some individual teachers started engaging in interdependent work, such as joint problem-solving and change evaluation, in many other instances, teachers participated in collaborative activities without disrupting their privacy and independence from their colleagues. In practice, this involved teachers sharing stories and resources, at best, and when change overload predominated, they reverted to compliance, like template filling. As the middle leader below captures, when describing her PLC, there were mixed reasons for autonomy pervading, including insufficient trust and collaborative capacity. And, perhaps unsurprisingly, the degree of change was another factor:

> Sometimes, sometimes I just wonder what the hell are we are doing … people just sit there. And somebody is annoyed about filling out this form or somebody is annoyed about this. There is very little good productive conversation occurring … Sometimes you don't have … connectedness, that respect, that relationship that enables you to go, "Okay, let's start from scratch" because there's too much pride. … I lost faith in the PLCs, well that one in particular because I'm like, "What is the point because they are not going to do it. They have got no fricken clue." … We are missing that first level of developing ownership together and developing that respect and understanding about where we are as teachers so that people can step out from behind the curtain.

Eastview: Case Summary

Eastview's case demonstrates that balancing change–stability is a base-level condition of adaptive change. Without it, balancing the other tensions appears difficult. Too much change appeared to act like an accelerator, producing significant fatigue (Greene & Kramer, 2020) and pressure that intensified the perception of challenge and increased the requirement for support.

At times, this workload stress also lessened teachers' capacity to connect with others around change.

Cross-Case Analysis

This analysis starts by drawing on the literature to contrast how leaders approached the three paradoxical tensions in the two schools before exploring the implications of these approaches for the degree of adaptive change.

Change–Stability Tension

When this tension was dynamically balanced it somewhat alleviated time scarcity as a barrier to advancing change. Time to engage in change is constrained by the inherent conditions of schooling, such as structured timetables and the time-consuming daily demands of attending to student crises (Supovitz et al., 2019). When resources, like time, are scarce, tensions are more salient (Smith & Lewis, 2011). Scarcity of time in both case schools was prevalent; teachers often raised time, or more specifically, the lack of it as a barrier to advancing change. Interestingly, this time barrier was somewhat alleviated when the change–stability tension was integrated. Balancing this tension allowed River Valley to allocate time strategically so that teachers had the attentional resources and cognitive capacity to invest in adaptive change.

Two leadership practices appeared to differentiate River Valley and Eastview and may explain how River Valley's SLT dynamically balanced the change–stability tension, but Eastview did not. The first was the SLT's coherence around change as a systemic venture. River Valley's senior team shared a coherent map of how changes integrated across their system to benefit students. By comparison, at this point, Eastview's leaders did not; changes were siloed, competing against each other for teachers' attention and creating clutter.

The second notable practice at River Valley was the SLT moving between and responding to evidence from the dance floor and balcony (Heifetz et al., 2009). On the dance floor, senior leaders genuinely listened and then used this understanding of the realities on the ground as input to update their systemic map from the balcony. By contrast, at Eastview, while leaders were aware of emergent evidence of how change was progressing from the dance floor, they sometimes neglected to act on this. In sum, integrating the change–stability tension at River Valley appeared to be predicated on senior leaders making unified change decisions based on an emergent acumen of patterns across their system.

Challenge–Support Tension

Balancing this tension, as Heifetz et al. (2009) explain, enables adaptive change in the productive zone of disequilibrium. In this study, schools struggled to find the productive zone, where people are challenged to push boundaries and reach standards and yet can trust they will be supported to take risks, learn, and change. Too much support and insufficient challenge at River Valley gave teachers substantive freedom, especially early on, to choose how to participate in change and the standards they would apply. Too much challenge and insufficient support at Eastview created high expectations and encouraged some people to push learning boundaries.

However, for those with less capacity, the personal risks were too high, and they disengaged. The outcome in both schools, in one way at least, was remarkably similar: high variance in the degree of engagement and learning about changes. These findings suggest that balancing challenge and support is central to building capacity for adaptive change.

Connection–Autonomy Tension

On this tension, both schools more strongly emphasised autonomy than connection. Not integrating this tension mattered because it hindered teachers from engaging in genuine interdependent work that is necessary to transform beliefs for adaptive change. The nuanced nature of balancing this tension (Fullan et al., 2022; Vangrieken et al., 2017) may partly explain why both River Valley and Eastview struggled to integrate it in spite of each SLT's significant efforts to fine-tune their collaborative infrastructures. Vangrieken et al. (2017) suggest that balancing connection AND autonomy requires finding ways to allow teachers to be self-directed and autonomous, which does not exclude them from connecting and consulting with others in collective pursuits. Another nuance related to balancing this tension is that it is reliant on strong relational conditions. Fullan et al. (2022) theorised the importance of addressing conditions like trust, empathy, and power as these are necessary foundations for connected autonomy. In the case schools, perhaps power concentrated at the top and insufficient trust were factors hindering connected autonomy. In sum, perhaps, confounded by these nuances, senior leaders and teachers tried to find ways to promote interdependent collaboration that allowed for autonomy to coexist, but often, they reverted to normative patterns of independence, discussing superficial features of practice when collaborating.

Implications of Leaders' Approaches to Tensions for Adaptive Change

Leaders' approaches to tensions were significant factors in determining the degree of adaptive change in the case schools. While it was uncommon for school leaders to integrate tensions in this study, when they did, change benefits coalesced from interweaving poles. For example, integrating or balancing the change–stability tension allowed River Valley to create cohesive student experiences and freed up teachers' time and cognitive capacity to learn about changes. Thus, these findings confirm that both/and approaches that integrate the poles are productive responses to paradoxical tensions (Smith & Lewis, 2011).

Focusing on one side of a paradoxical tension constrained the schools' capacity to respond to adaptive problems. One-sidedness drove linear or technical approaches to problem-solving during change that belied the complexity of the systems in which actors operated. At River Valley, linear problem-solving slowed up change progress when leaders' response to a capacity shortfall was to support the development of capacity first and then, after some time, introduce small degrees of challenge for teachers to achieve the next performance increment. This linear problem-solving failed to recognise the interwoven nature of support and challenge, thus allowing slack to creep in. Also, Eastview's leaders applied technical problem-solving, sticking with what had worked before, staying in high-challenge mode, and not adapting support levels regardless of evidence that some teachers were not learning. These technical, linear

approaches appeared unsuited to the complex problems that the schools faced, thereby ultimately hindering progress on adaptive change.

Final Word

This study offers some preliminary evidence suggesting that one-sided approaches to tensions do constrain change in schools by keeping them in cycles of technical problem-solving. Staying in technical problem-solving mode is insufficient because many problems in education are adaptive, requiring the rethinking of existing beliefs and norms (Heifetz et al., 2009). Furthermore, and returning to the overarching crisis theme of this issue, this study shows that one-sidedness may indeed create crises of our own making by holding schools in existing operating modes, which prevents them from adapting to their contextualised concerns and stakeholders' needs.

Although findings from this study suggest that school leaders struggled to adopt both/and or integrated approaches to tensions, this is not a criticism of the leaders in this study; rather, it is more a reflection that knowledge of tensions is relatively nascent in education and that releasing the creative potential which lies between the poles is complex and nuanced. Complexity is evident, in that, to begin with, leaders must see the tensions in their context and identify them as paradoxical rather than simple choices between two independent options. Although not the focus of this study, there were some indications that paradoxes were not salient to leaders (Jarzabkowski et al., 2018); perhaps they had not noticed these contradictory forces or did not have the language to make sense of the tug-of-war they felt between the poles. Next, as the cases show, if tensions are salient to leaders, significant knowledge and skills are required to facilitate their integration and understand their nuanced, multi-level, and dynamic nature. Finally, this study indicates that leaders must look inward at how their beliefs may inadvertently create either/or approaches. At both River Valley and Eastview, senior leaders' beliefs influenced how they approached tensions. For example, at River Valley, leaders' belief in "capacity first" led them to prioritise support over challenge. Thus, as Heifetz et al. (2009) identified, adaptive leaders must be open-minded and consider how their own beliefs contribute to the tensions that operate in their system.

To support leaders' knowledge and skills in understanding tensions, a broad research agenda is required. For starters, further studies are required to build on this one to see if both/and, not either/or, approaches are necessary to promote adaptive change in schools. Also, scholars should use paradox theory to extend knowledge of tensions in education, including the predominant approaches to tensions and their relationship with educational outcomes. Intervention research would also be beneficial in determining if educational leaders are indeed more effective when armed with knowledge of tensions and how to integrate them.

Competing Interests and Funding

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Open-Mindedness for Effective Leadership

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ABSTRACT: Holding an open-minded stance is key to being able to engage in conversations that promote learning and problem resolution (Le Fevre & Robinson, 2014)—a skill central to adaptive leadership in times of crisis (Heifetz et al., 2009). An open-minded stance demands recognising the fallibility of one's own beliefs and the willingness to be open to alternative views and possibilities (Hare, 2006a). This empirical, qualitative research explores educational leaders' levels of open-mindedness when engaged in conversation about an educational concern. We examined transcripts from 26 current or aspiring educational leaders and analysed both what they said and their reported unexpressed thoughts and feelings. Findings revealed just four leaders held an open-minded stance throughout the conversation. The majority of leaders (18) oscillated between open- and closed-mindedness, and four leaders held a closed-minded stance throughout the conversation. A closed-minded stance was characterised by leaders' assuming the validity of their own view, not considering the possible merits of other views, making negative attributions, and dismissing the other person's views. Being able to lead effectively in times of crisis involves being open to other views in order to solve and respond to problems effectively. The intentional development of open-mindedness is an important focus for leadership development.

Introduction

The current global context of education has been described as one of VUCA—volatility, uncertainty, complexity, and ambiguity (Hadar et al., 2020). Volatility refers to the nature, volume, and magnitude of change that effects education. Uncertainty represents the lack of predictability from both short- and long-term perspectives. Complexity is evident in the confounding and unpredictable nature of contexts both within and surrounding education. And ambiguity refers to the mixed meanings and interpretations of reality. Adaptive leadership (Heifetz et al., 2009) is a powerful lens through which to examine the role of leadership in today's volatile, uncertain, complex, and ambiguous world.

Adaptive Leadership Through Crisis

Educational leaders work in complex contexts and face crises every day. These can include local (or micro) crises specific to their organisations; crises resulting from larger national trends, such as shortages of high-quality teachers and teacher burnout; and global crises, such as pandemics, conflict, economic disparity, and climate change. Some crises are ongoing and pervasive (e.g., the effects of economic disparity and poverty) while others are sudden and unexpected (e.g., a severe earthquake) (see Stoll & Sinnema, 2024, this issue). Defining a crisis may be simple in large crisis situations; however, there is an element of subjectivity in terms of more localised crises, and what may be perceived as a crisis to some people may not to others (Brion, 2021).

Whatever the scale, proximity, or urgency of the crisis, adaptive leadership responses are required because, by definition, the status quo has changed. In her research on school leaders following an earthquake in New Zealand, Mutch (2015) observed that:

> While it could be argued that leadership in times of crisis is simply good leadership put under pressure, the unfamiliar context, the fast-changing nature of the environment, the multiplicity of actions and interactions, the speed at which decisions need to be made and the possibly life-saving implications of these, added new layers of complexity. (p. 193)

Leadership in a VUCA world requires adaptive leadership (Heifetz et al., 2009), whereby leaders "drive adaptive rather than reactive change" (Ravich & Herzog, 2023, p. 3). Reactive change is the outcome of leaders keeping their heads down and continuing to respond in the same ways to new problems, but such change is often unsuccessful. In contrast, adaptive change happens when leaders proactively engage others and respond in new ways with strong relational acumen. Adaptive change is more likely to result in problem resolution and successful change.

Both local and global VUCA contexts that impact education make leading through crisis even more challenging. In times of crisis, leaders are "expected to take control and act rationally and calmly while displaying creative thinking, social judgement and complex problem-solving skills" (Mutch, 2015, p. 189). These problem-solving skills are applied in a range of ways,

including, importantly, through conversations. Engaging in effective conversations that help solve problems when things are difficult or at a crisis point is central to the work of leaders. However, leaders tend to avoid difficult conversations (Sinnema et al., 2013), and when they do have them, they are not necessarily effective (Le Fevre & Robinson, 2014). In the following section, we examine the literature on effective conversations and open-mindedness to define a normative view on conversation effectiveness used in the current study.

The Nature of Effective Conversations

Many and varied ideas about effective conversations exist. Research suggests that although much is known about what makes effective conversations, educational leaders continue to find it difficult and are often reluctant to engage in conversations about concerns. For example, in their study of principals who needed to give feedback to poor performing teachers, Yariv (2006) observed that initially more than half the principals chose to ignore the problem rather than try to give feedback. Their findings revealed leaders lacked the necessary skills to engage productively in problem-solving conversations. These leaders had a tendency to gently dance around the issues they wanted to address rather than exhibiting the interpersonal skills needed to engage with both the problem and the person (Argyris & Schön, 1974).

There are many different theories about what makes communication effective and how to engage in difficult conversations. For example, Stone et al. (2000) present several different strategies including the importance of being clear about the purpose of a conversation, speaking with clarity, and abandoning blame.

Different beliefs and agendas drive theories about what makes a conversation effective. For example, if the agenda is to "win" the conversation, then the advice given will centre on how to convince the other person of your point of view (a common perspective in many popular culture business books); but if the agenda is to increase understanding of the issue for all parties, to demonstrate respect for each other, and to collaboratively problem-solve an issue, then the advice offered will be quite different. Our normative view is that the agenda of school leaders' conversations in times of crisis needs to be the latter. Therefore, a key theory that informs our work is the need for problem-solving conversations to be driven by a stance of open-mindedness. Open-mindedness is only one aspect of what makes conversations effective and it is the focus of the research reported in this article.

Open-Mindedness

Open-mindedness has variously been described as a virtue, an intellectual quality, and a stance. In this article, we focus on what open-mindedness looks like in practice, specifically in the practice of leadership; thus we refer to it as a stance. The stance of open-mindedness does not imply that we should hold no convictions, principles, and beliefs; rather, it embraces the idea that we should be willing to review these and consider alternative perspectives (Hare, 2006a, 2006b). In this way, open-mindedness is central to making good judgments, thinking critically, and being effective in decision-making (Krumrei-Mancuso & Worthington, 2023), all of which are essential elements of leadership in times of crisis.

In effective conversations, educational leaders who hold an open-minded stance are aware of and challenge preconceived ideas, avoid hasty conclusions, and seek "whatever beliefs, interpretations, explanations, theories, policies, or value judgments seem warranted" (Hare, 2006a, p. 117). According to Riggs (2010), "To be open-minded is to be aware of one's fallibility as a believer, and to acknowledge the possibility that anytime one believes something, one could be wrong" (p. 172). Being open-minded is also associated with increased information validity; as Sinnema et al. (2023) explain, being "open-minded and thus more attentive to the information that disconfirms rather than confirms their beliefs" is key to leaders being truth seekers rather than truth claimers (p. 141). This is important for increasing the validity of the information that can be brought to bear when solving complex problems.

Open-mindedness involves being critically, rather than uncritically, open to alternative possibilities (Hare, 2006b). This distinction is important, because uncritical openness admits such undesirable qualities as the "ready acceptance of new ideas" and an "inability to adopt and maintain a firm belief" (Hare, 2006b, p. 9). Open-mindedness does not preclude holding firm views. What it *does* demand is a readiness to re-examine these views in the face of alternative information and new evidence. It demands being open to and even inviting alternative views for consideration.

The contrasting stance to open-mindedness is closed-mindedness, which is characterised by the absence of open-mindedness and the holding of excessive certainty or rigidity about one's views, principles, and theories (Berggren et al., 2019). Studies of closed-mindedness have explored the degree to which people avoid or devalue information that contradicts their existing theories and beliefs. This has been shown to be strong in people across a range of ideological views, indicating that closed-mindedness is a common human stance, and it is associated with a high level of intolerance of ambiguity and uncertainty (Berggren et al., 2019).

Research indicates that people find it challenging to hold an open-minded stance (Robinson & Le Fevre, 2011). There are several possible reasons for this, including our susceptibility to self-deception, our tendency to frame things in familiar ways to avoid cognitive overload, our tendency to believe what we want to be true, our reluctance to give up long-held beliefs and values, and our discomfort with uncertainty and ambiguity (e.g., Hare 2006b; Spiegel, 2012). The concern addressed by the current research is that, given the current nature of our VUCA world, this avoidance of ambiguity and uncertainty may pose a contextual risk to leaders working in times of crisis. We therefore focus on open-mindedness because "[c]ritical self-examination of our thoughts, emotions, motivations, and values can help us discover blind spots, gain greater self-awareness, and act courageously" (Krumrei-Mancuso & Worthington, 2023, p. 81).

Background to Open-Mindedness as a Stance

Krumrei-Mancuso and Worthington (2023) ask the following question: "When is changing our minds an indication of fickleness versus an indication that we are dedicated to accurate belief?" (p. 81). It is certainly true that interpretations of the open-minded stance have been critiqued for enabling non-commitment to any particular view or theory. However, open-mindedness is not about being like a reed bending back and forth in the fickle winds of opinion;

rather, it is about examining and critiquing the views one holds (Spiegel, 2012). Indeed, Spiegel and other philosophers and educational theorists link open-mindedness to the virtue of intellectual humility (Ballantyne, 2023., Spiegel, 2012). Intellectual humility reflects our willingness to reconsider our views and reduce our defensiveness when our views and beliefs are challenged by others. It also involves our willingness to be wrong and to recognise we need to change our views (Ballantyne, 2023).

Given the virtues of an open-minded stance, one might ask why it is so common for people to hold strong convictions in a closed-minded way. Holding strong convictions and having firmly held principles and beliefs has advantages. For example, it frees up cognitive capacity, and it has been identified as enhancing emotional regulation, a strong sense of self, and social belonging; it is also associated with a reduction in impulsivity (Krumrei-Mancuso & Worthington, 2023). However, one of the downsides of holding strong convictions is that these convictions may cease to be accurate or to make sense when contexts and challenges change, such as in times of crisis.

Open-Mindedness for Leaders in Times of Crisis

It may seem at face value that supporting leaders to have more effective conversations is relatively straightforward. For example, we have identified some key skills central to effective conversations, which are both respectful and can promote problem-solving (Robinson & Le Fevre, 2011). Why, then, do leaders continue to engage in ineffective conversations? One reason is that, while we can identify and support the development of specific skills, such as seeking a deeper understanding of the other's point of view or being open to examining our own assumptions, these skills demand a deeply held stance of open-mindedness. A person's underlying theories and beliefs frame how they interact and communicate. Findings from cognitive science reveal that these theories and beliefs (variously named as frames, schemata, assumptions, or mental models) shape how we see and interpret the world. Understanding this process and seeking to change problematic frames, such as closed-mindedness, is fundamental to changing the way people think and act in interpersonal communication.

This study is part of a larger programme of research, the purpose of which is to develop an understanding of what increases leaders' capacity to be effective in both developing relationships and progressing problem-solving during their conversations (e.g., see Robinson & Le Fevre, 2011). In the current study, we sought to identify what underlying stance leaders used during a conversation about a concern. We used the concepts of open-mindedness and closed-mindedness to classify these stances. Our proposition is that an open-minded stance is essential to enable leaders to (a) become aware of the theories and beliefs they hold, (b) be cognisant of and able to respond to the theories and beliefs others hold, and (c) make evaluative judgements that inform effective decision-making on the basis of this understanding. The research question this study examined was as follows: What evidence is there of leaders holding an open-minded stance during a conversation about a concern?

Methods

In the following section, we describe the context, participants, data sources, and data analysis strategies.

Participants

The participants were 26 current or aspiring educational leaders enrolled part-time in a graduate course in educational leadership. The course included leaders from early childhood, primary, and secondary school settings, with most working in primary school settings. The majority of participants were aged 30–50 years; approximately two-thirds were female, and most were New Zealand European. Participants' roles in their work contexts varied from classroom teacher to deputy principal. The majority of participants had more than two years of leadership experience (see Table 1).

Table 1

Participant Demographics (n = 26)

Characteristic		N	(%)
Gender	Male	8	31%
	Female	18	70%
Age group (years)	20–30	5	19%
	31–40	10	38%
	41–50	10	38%
	51–60	1	4%
Ethnicity	NZ European	16	62%
	NZ Māori	1	4%
	Pasifika	2	8%%
	Asian	3	12%
	Other	4	15%
Highest qualification	Bachelor's degree	17	65%
	Graduate diploma	5	19%
	Postgraduate diploma/certificate	4	15%
Years of leadership experience	None	4	15%
	Less than 2 years	3	12%
	2–4 years	8	31%
	More than 4 years	11	42%

Characteristic		*N*	(%)
Sector	Early childhood	5	19%
	Primary school	12	46%
	High school	9	35%

*Note. Due to rounding percentages do not always add up to 100%.

Accessing Leaders' Cognition

Identifying whether leaders' stances in a conversation are either closed or open is a methodological challenge, as by definition, it requires access to the leaders' cognition. By cognition, we mean leaders' thoughts and feelings during the conversation. Analysing thoughts and feelings is crucially important, as empirical evidence reveals that what people say is often different and even contradictory to what they are thinking at the time. We accessed leaders' cognition using a process adapted from Argyris and Schön (1974) that involved asking the leaders to recall the thoughts and feelings they had *but did not express* during the conversation. Argyris and Schön (1974) used this process in numerous case studies to reveal how people's entrenched norms, beliefs, and values drive their actual behaviours in conversations. These norms, beliefs, and values are often different from those that people espouse. In other words, what people *think* and *feel* is not always aligned with what they *say*, hence the importance of analysing unspoken thoughts and feelings.

Data Sources

Leaders were asked to identify a concern they had in their work context about another staff member or parent and to have a conversation with that person to address the concern. Like the VUCA crisis contexts we referred to in the introduction, our participants' concerns were characterised by uncertainty, complexity, ambiguity, and, if not volatility, at least a sense of interpersonal challenge. The leaders audio-recorded their conversation at the beginning of the educational leadership course to provide baseline data for their own learning about their leadership behaviour in such conversations. At this stage, these leaders had minimal understanding of the theory of open-mindedness or the practice of effective interpersonal communication that would be taught in the course. The conversations focused on parental complaints, staff professional behaviour, or teaching practice.

Prior to holding the conversation, leaders completed a pre-conversation questionnaire comprising questions about the nature and history of their concern and any prior attempts to resolve it. They also wrote a statement outlining their concern. Leaders transcribed their own conversations into the right-hand column (RHC) of a template. They were then asked to re-read their transcripts and recall any thoughts and feelings they had but did not express during the conversation (procedure adapted from Argyris & Schön, 1974). Leaders annotated their transcripts with these thoughts and feelings in the left-hand column (LHC). Ethical committee approval was received from the University of Auckland for this research and informed consent to record the

conversation and to use the data for research purposes was gained from both the leader and the conversation partner.

Thus, there were three data sources: (a) a pre-conversation questionnaire including a concern statement, (b) the audio-recording of the conversation, and (c) the annotated transcript of the conversation with an LHC detailing the participant's thoughts and feelings.

Data Analysis

Data analysis involved a rigorous coding process in which the first author systematically considered each data source. First, the leaders' questionnaires were read to establish the nature, context, and history of each concern. Next, the first author listened to the audio-recording of the conversation while reading the transcript to establish transcript accuracy and gain an overall understanding of the conversation. These early analysis steps were important for the main analysis, which focused on the leaders' unspoken thoughts and feelings documented in the LHC and therefore required consideration of the context (concern statement) and the content of the actual conversation (RHC).

The purpose of the analysis was to identify underlying thoughts and feelings that indicated an open- or closed-minded stance. Development of the coding structure (using NVivo) involved a combination of inductive and deductive strategies. The first deductive step involved excluding all those LHC thoughts and feelings that were "process related" and hence not relevant for an identification of an open- or closed-minded stance. These consisted of comments about the conversation process, such as the "need to wrap things up" (#26). We excluded 12 instances of process-related thoughts and feelings in four transcripts. Then, through several iterations of inductive coding, we developed a final coding structure (see Appendix A) consisting of two categories for open-mindedness (genuine inquiry and revising own views) and three categories for closed-mindedness (assuming the validity of one's own views, making negative attributions about the other person, and being dismissive of the other person's views). The development of the coding structure was tightly connected to our theoretical framework of open- and closed-mindedness outlined in the introduction to this article. All three authors discussed each iteration of coding in reference to the different data sources for each case until differences and disagreements were resolved. The multiple coding iterations meant that all cases were read and re-read by at least two authors over the course of the analysis. There were 10 instances across seven conversations of undisclosed thoughts and feelings (in the LHC) from which we could not assume the leaders' motives. These 10 instances were not coded and were omitted from the analysis. Overall, we coded a total of 175 annotations indicating leaders' thoughts and feelings that indicated an open- or closed-minded stance; however, we were also interested in the presence and absence of an open- and closed-minded stance throughout individual leaders' conversations.

In a final analysis step, we examined the evidence of leaders holding an open- or closed-minded stance by looking at coding for open- or closed-mindedness within each conversation. This revealed three distinct patterns relating to open-mindedness across the conversations: open, closed, and mixed stance. Four conversations were categorised as being of an open stance, where all coding was open (i.e., no closed-minded coding; n = 4). The closed category represented

those conversations in which there was no coding for an open stance (n = 4). The majority of conversations (n=18) were categorised as "mixed stance" because they contained coding for both open and closed stances at different points across the conversation. Next, we randomly chose one open and one closed conversation as contrasting cases to explore the potential underlying causes for the leader's stance as well as the possible impact of the leader's stance on the conversation outcome.

Findings

First, we present the three different stances that emerged as patterns from our analysis: open stance, closed stance, and mixed stance. We then illustrate these patterns by presenting two contrasting cases that provide a richer account of how alternate stances play out in leaders' conversations.

Open Stance

Conversations were categorised as being of an open stance where all coding was open. Four of the 26 conversations were in this category. We identified an open-minded stance in the LHC when the unspoken thoughts and feelings of the leader during the conversation indicated that the leader recognised the fallibility of their views and was willing to consider other possibilities and explanations in relation to the concern they were trying to address.

Indicators of this open-minded stance included the use of tentative language, such as "I think", "it might be", and phrases such as "I hope I'm on the right track". The use of tentative language indicates a person does not hold a firm view and is coming from a stance of "wondering". A further indicator was the leader communicating that they were considering the validity and possibility of revising their theories and beliefs. Open-stance conversations included evidence of the leader revising their own view, for example, "I didn't realise it came down to a child, can I help? I really thought it was the paperwork side of things" (#03). In this conversation, the leader changed their perspective on what they initially believed the problem to be.

An open stance was also coded when the undisclosed thoughts and feelings indicated that the leader did not hold their views with excessive certainty but instead adopted a position of curiosity and wondering. Words such as "I'm wondering" and "I should find out" (#23) were considered indicators of an open stance.

One could mistakenly assume that an open stance with genuine inquiry would mean there would be many questions in the LHC. While sometimes there were questions—for example, "What are we going to do?" (#03)—often, the feelings and beliefs were not posed as questions, but they nevertheless indicated an inquiry and an open stance. For example, one leader thought, "I need some time to figure out how best to help her and her students" (#18). This is not an inquiry in terms of asking a question, but it shows the leader is open to analysing the nature of the problem and inquiring how best to solve it from an open-minded stance.

A conversation was coded as open if there was no evidence of a closed stance in the leaders' underlying thoughts and feelings as presented in the LHC. It is possible that leaders did

not write all their undisclosed thoughts and feelings, and therefore, this overall judgement may be inaccurate. However, if this did indeed occur, it would point even more convincingly to the challenge leaders face in holding an open-minded stance.

Closed Stance

The closed category represents those conversations in which there was no coding of an open stance. Four conversations fitted this category. In these conversations, the stance of the conversation was closed throughout and there was no evidence of open-mindedness in the thoughts and feelings evident in the LHC.

In these closed stance conversations, leaders assumed the validity of their own views by thinking things such as, "He has to agree to this!" (#07). This definitive claim indicated there was not room for another interpretation and was thus a closed stance. The leader did not consider the possible fallibility of their deeply held views, nor did they inquire into the views of the other person. There were instances where leaders could perhaps see another point of view, but they failed to take it seriously because they were so determined to push their own agenda. For example, one leader annotated their unspoken thoughts in the LHC as follows: "I can actually see from your point of view, but I don't want to admit it" (#10). This forced them into a closed stance, as they were unwilling to step out and consider or acknowledge the existence of a different way of thinking about the problem.

Sometimes, the leader made negative attributions about the other person, and these sustained a closed-minded stance. For example, a leader's undisclosed thoughts included the comment, "Ok, he's either a liar or very naïve" (#07). By making these negative attributions, the leader excluded the possibility of taking the other person's views seriously or critically evaluating their validity. Another leader (#17) made similarly negative attributions about the person they were conversing with, assuming (in their unspoken thoughts) that this person was "not accepting her mistakes and [was] blaming others". Again, this unexamined assumption attributed blame to the person, thereby diminishing the leader's willingness to discover or explore this person's views.

Another indicator of a closed stance was the presence of leaders' undisclosed thoughts and feelings that uncritically dismissed the validity, importance, or even presence of the other's views. For example, Leader #10 wrote in the LHC, "I can't believe I am hearing this, really!" This thought prevented the leader from exploring the other person's point of view; they held onto their own existing views so tightly that the person's words were deemed unworthy of being heard. A closed stance was not always apparent in what the leader actually said, but it became evident in the LHC. This highlights the importance of this research methodology for examining leaders' undisclosed thoughts and feelings. For example, although Leader #18 asked the other person for their view in the actual conversation, their undisclosed thoughts and feelings at the time were: "If I just let her share her opinion, then we can get that out of the way and get back to the main issues". This dismissive view of the other person excluded any possibility that the leader treated their views seriously.

Thus, the main features of a closed stance included leaders' assumptions regarding the validity of their own views, their ongoing negative attribution of the other person's motives, their

pejorative views of the other person, and their tendency to have thoughts about pushing their own agenda so that they could "win" the conversation.

Mixed Stance

The majority of conversations ($n = 18$) were categorised as "mixed stance" because they contained coding for both an open and closed stance at different points across the conversation. These 18 conversations followed a pattern in which the leader identified underlying thoughts and feelings that sometimes represented an open-minded stance and at other times characterised a closed-minded stance. However, six of the 18 conversations coded as "mixed stance" had only one instance of open-mindedness coding, and a further six transcripts had only two instances. This indicates that the majority of conversations coded as "mixed stance" were, in fact, primarily closed stance. Overall, we would claim these 18 conversations do not represent an open-minded stance because they contained undisclosed thoughts and feelings that we coded as closed-minded. There were even instances where leaders switched between holding a closed- and open-minded stance in their unexpressed thoughts and feelings during the same utterance in a conversation.

Two Contrasting Cases of Stance

To provide a more holistic picture of the way that closed- and open-minded stances affect a conversation, we next provide an analysis of two contrasting cases. We compare the conversation of leader #20, who held an open-minded stance, to that of leader #07 whose unexpressed thoughts revealed a closed-minded stance.

Leader #20 addressed a concern about an experienced primary school teacher who had not been incorporating a key curriculum component (shared reading) into her teaching programme. Senior management had alerted the leader that the teacher's classroom reading times seemed chaotic. When the leader had checked the teacher's planning documents, she had found no evidence for the planning of a shared reading component. Asked to describe what she believed had caused the situation, the leader pointed to the teacher having "neglected to remember the importance of shared reading" and a "lowered level of commitment" due to her strained relationship with other staff (pre-conversation questionnaire). The leader was also concerned that the teacher might lack the capability. "I have assumed that as a very experienced teacher, she would have managed to adapt her teaching to incorporate all components of guided reading" (pre-conversation questionnaire).

In her conversation with the teacher, Leader #20 inquired into the teacher's reading programme; she noted in the LHC that she had recognised at the outset there might be other reasons for the teacher's actions: "She's not got enough time; she knows what she should be doing". The teacher described the wide range of ability groups in her class and her inability to cover the different programme components due to a timetable change that significantly reduced the available time for the literacy programme. The leader's open stance towards the teacher's alternative explanations regarding this concern led her to inquire further into the difficulties facing the teacher. The leader's unexpressed thoughts indicate the genuine nature of these

inquiries: for example, "What range has she got?" (line 25) and "Check if she is open to help?" (line 50).

Thus, while the leader had initially assumed the teacher's lack of commitment and capability were the main reasons for the compromised reading programme, she was able to revise her view during the conversation by recognising that the teacher was passionate about teaching but was also frustrated in her efforts to teach students with wide-ranging abilities in a limited amount of time. In her LHC, the leader wrote, "She [the teacher] is passionate still and frustrated" (line 86). Nevertheless, open-mindedness does not equate to an uncritical adoption of others' views. The leader's deeper inquiry and checking of information during this conversation showed a critical evaluation of the teacher's beliefs. For example, the leader responded to the teacher's comment about the range of her students' abilities by asking herself, "What range has she got?" (line 25). Once the teacher gave her specific information about the reading groups, the leader then concluded, "Ok, she's got a massive range" (line 32). By the end of the conversation, the leader and teacher had discussed possible solutions and established a collaborative plan to explore different options in terms of how to integrate the shared reading into the teacher's programme. In summary, by holding an open stance throughout the conversation, the leader was able to gain a greater understanding of her concern. She realised the teacher had a number of constraints that prevented her from implementing the programme component, which were different from those she had initially assumed. This understanding enabled her to support the teacher more effectively by directly addressing those constraints.

A contrasting case is that of Leader #07, who, as an assistant principal, addressed a concern with a senior leader in her elementary school. The senior leader had allegedly made public comments criticising Leader #07 and her team. Assessing the situation prior to the conversation, Leader #07 described her belief that the other senior leader's actions "are deliberately trying to create dysfunction and harm" (pre-conversation questionnaire). Leader #07 made several negative claims and attributions about the other leader's motives and actions, stating in the pre-conversation questionnaire, "I also have significant doubt of [the senior leader's overall integrity in telling and reporting the truth" and "She avoids direct conflict so instead tries to manipulate to get what she wants."

Leader #07 maintained this closed-minded stance towards the other person throughout the conversation. She did not entertain the possibility of exploring whether the other leader did in fact publicly criticise her, or whether there may have been some validity in the critique from which she could learn. The unexpressed thoughts of Leader #07 revealed her certainty about the validity of her own views. For example, she wrote in her LHC, "She's going to hate this—I've completely confronted her" (lines 11–13) and "She has to agree to this!" (line 95). Throughout the conversation, there were instances of Leader #07's intention to steer and win the conversation; for example, she wrote, "I'm going to try and speed this up and just put what I want on the table" (lines 123–125). While the other leader claimed that the alleged comments were anecdotal and attempted to discuss the issues, Leader #07 did not engage with these differing views, thus failing to learn from the other person's perspective. The RHC transcript of the conversations could give the impression that Leader #07 was taking a relatively open-minded stance, but the undisclosed thoughts shared in the LHC showed that she was continually dismissive of the other leader's views. Her LHC included views such as, "I'll let her go on, make her feel heard, then get

her when she's stopped" (lines 30–33). As the result of her closed-minded stance, Leader #07 missed the opportunity to gain a greater understanding of the other leader's concern and to address the issues underlying the alleged public criticism. By the end of the conversation, the agreed solution was for the other leader "to be more vague" in her public comments; this solution effectively covered up any deeper concerns and may have hindered future open discussion about these concerns within the team.

Discussion

Now, we focus on the significance of these findings for supporting the development of adaptive leadership in times of crisis, including how to support the development of an open-minded stance.

The Importance of Examining Assumptions

Unexamined assumptions were common across the conversations we characterised as both closed-mindedness and mixed. Leaders' unspoken thoughts and feelings, when examined alongside what they actually said, revealed assumptions about the validity of their own views that they chose not to raise in the conversation. These assumptions were often held with excessive certainty, a consequence of which was the inability to be open to understanding the other person's perspective and a tendency to be dismissive of their views. Particularly in times of crisis, it is critical to question assumptions held by both oneself and others in order to enable adaptive rather than reactive change. Leaders will likely need to respond to new information and make decisions in ways they have not had the opportunity to plan for (Mutch, 2015). While a stance of open-mindedness does not necessitate agreeing with another person's perspective and disregarding one's own views (Hare, 2009), a conversation will only have the potential to problem-solve in times of crisis if both parties begin by attempting to understand the other's point of view. Only then can perspectives begin to be challenged and renegotiated in order to reach some common ground or point of resolution (Robinson & Le Fevre, 2011).

Open-Mindedness for Learning

The two contrasting cases reveal the overarching effect on conversation outcomes. For example, an outcome of the closed-minded case was likely a continuation of the problem; this contrasted with the outcome of the open-minded case, where leadership learning was enabled and a new understanding of the problem and its solution was possible. In this way, the open-minded conversation aligned with what Heifetz and colleagues (2009) referred to as adaptive learning to address adaptive challenges. Adaptive challenges are challenges for which there is currently no known solution, and which require a new way of understanding and responding (Heifetz et al., 2009). Although these two cases were randomly selected, their features were also evident in the other conversations. For example, when leaders held a tentative approach and were willing to check their assumptions, they maintained an open-minded stance. In contrast, when

leaders maintained pejorative views about the other person and/or made negative attributions regarding their motives, these thoughts undermined the potential to be open-minded.

Psychological Safety

Adaptive leadership requires an open-minded stance and the ability to "impartially adjudicate between conflicting views and, when necessary, to manage the discomfort that comes with changing one's mind and admitting mistakes" (Tucker, 2023, p. 244). Here, Tucker directly refers to the significant role of emotion in taking a stance of open-mindedness. It can feel uncomfortable or even vulnerable to admit we are wrong or have made a mistake. For example, in the open-stance case, we saw evidence of Leader #20 being explicit about the fact that she had misinterpreted the situation and changed her views about the problem as a result of the conversation. This required the leader to recognise and be transparent about the fact she was wrong. Such an open-minded stance enables adaptive leadership and demands that leaders are willing to take on a degree of vulnerability (Meyer et al., 2017), just as Leader #20 did. As we advocate in this study, behaviours such as changing one's view or admitting an error in judgement are important to an open-minded stance, but they are often avoided by leaders and replaced with defensive behaviours, such as closed-mindedness or "defensive routines" (Argyris, 1990), as a means of self-protection. To address this, it is crucial to create an organisational culture of team open-mindedness and psychological safety, where people feel safe and supported enough to take interpersonal risks (Harvey et al., 2019). Team open-mindedness is the "collective ability to detect information gaps" and it "fosters the surfacing of novel information through divergent thinking and free-flow brainstorming" (Harvey et al., 2019, pp. 1732–1733). These skills are central to adaptive leadership. Indeed, further research might examine the significance of psychological safety and the role of open-mindedness in educational leadership from a group or team perspective.

Amplification of the Importance of Open-Mindedness During Times of Crisis

We began this article by describing the volatile, uncertain, complex, and ambiguous (VUCA) nature of both the local and global contexts of education today. In this section we discuss the possible impact of this on the capacity to be open-minded. People tend to strive for certainty, and they will gravitate towards a solution even if it is known to be ineffective, because it provides some familiarity and certainty in their lives (Heifetz et al., 2009). This desire for certainty may be amplified during times of crisis when uncertainty prevails. What this means is that "[w]hen evidence against our beliefs mounts, so might uncertainty. Uncertainty can feel threatening. Therefore, holding convictions defensively or seeking evidence to bolster existing beliefs and values comforts us" (Krumrei-Mancuso & Worthington, 2023, p. 81). In times of crisis, there may therefore be a more extreme tendency to revert to habitual ways of responding and to seek certainty. In addition, during times of crisis, executive functioning can be negatively affected due to fear and anxiety (da Silva Castanheira et al., 2021), thus compromising cognitive functioning and increasing the likelihood that people revert to habitual ways of responding; the

evidence in this article suggests that these 'habitual ways" are likely to involve a closed-minded stance.

Periods of uncertainty and crisis are when disinformation and misinformation can be particularly rampant. Misinformation is incorrect information, while disinformation is the intentional spreading of information that is not valid. Having the capacity to hold an open-minded stance during such times is crucial. Being open-minded is not the same as being uncritically open to different views; rather, it involves taking a critical stance to explore the validity of different views, and this, we argue, is central to adaptive leadership.

Supporting the Development of an Open-Minded Stance in Leadership

It is one thing to understand something theoretically and quite another to be able to enact it. Tucker (2023) discussed the difficulty of enacting an open-minded stance and suggested the importance of taking a gradual and planful approach to teaching open-mindedness in ways that can actually change behaviours. Tucker proposed that a preliminary step in supporting people to have an open-minded stance is to equip them with "the fundamental, prerequisite skill necessary to pursue the virtue voluntarily: the ability to hear out opposing views with equanimity. This enables them to, but does not ensure that they will, embrace open-mindedness" (p. 259). Creating a developmental approach to teaching open-mindedness may be an important aspect of supporting leaders to change.

Our findings that the majority of leaders held a closed-minded stance during most of their conversation lead us to advocate for further teaching about intellectual humility and the role of open-mindedness, accompanied by opportunities to practice open-mindedness in psychologically safe environments. It is possible that the large number of inexperienced leaders (27%) had an impact on the results of the study. Further research could explore this empirical question. Of concern however is that both aspiring and experienced leaders have difficulty holding an open-minded stance. Thus it is important to teach both the awareness of open-mindedness as a stance and also to enable intentionality of stance in actual leadership behaviour to both these groups.

It can be tempting to try to simplify what leadership means in times of crisis by focusing on just one key leader and ignoring the networks and webs of influence that are the reality of leadership practice in schools. In times of crisis, teams and organisations need to learn and adapt quickly (e.g., see Stoll & Sinnema, this issue). This means people working together and bringing different knowledge, expertise, and views. While the current study has focused on the values and behaviours of individual leaders, these findings also have significance for any context where people work together, because the degree of open-mindedness held by individuals in a team has an effect on the whole team (Harvey et al., 2019). This is another argument for taking a systematic approach by supporting the development of an open-minded stance beyond the level of individual learning.

The scale of concerns discussed by leaders in the current study may be considered minor compared to many of the crises educational leaders face (e.g., see Mutch, 2015). Indeed, leaders in the current study were encouraged not to identify major crises because they needed to gain consent from their conversation partner to record and analyse the conversation for research purposes; this would obviously not have been appropriate in cases where the problem was

sensitive or significant. However, given the difficulty leaders had in maintaining open-mindedness in their conversations about relatively minor issues, they would likely find it even harder if faced with more extreme stress and crisis, especially given the findings from neuroscience about cognitive overload that happens during a crisis.

This study offers a small but important glimpse into the underlying epistemological stance held by leaders, which is likely to impact the way they engage in conversations with others in a range of contexts. Findings from this research can inform the future design and provision of professional learning interventions to equip leaders to be more effective in the conversations they hold, thus enabling them to address more of the concerns that currently lie unattended or ill-attended (Sinnema et al., 2013). In times of crisis, there is an even greater need to consider evidence, address concerns, make decisions, and act in ways that are different from the status quo. Crises, by their very nature, infer differences and the need to respond in new and novel ways with adaptive leadership.

Although findings reveal that the leaders in this study were not generally open-minded during their conversations, it is important to note that the authors are not presenting this research as a critique of school leaders. Previous research (e.g., Argyris & Schön, 1974) has repeatedly indicated that people from across a broad range of professions and walks of life exhibit very similar stances and behaviours. Rather, this research is intended to highlight the significance of an open-minded stance and to consider possible leverage points and interventions that might support leaders to be more effective—leaders who, as Mutch (2015) described, are often our "quiet heroes" (p. 193) in times of crisis.

Competing Interests and Funding

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APPENDIX A

Open- or closed-mindedness	Content category	Definition: Describes leaders' unspoken thoughts and feelings	Examples (from leaders' LHC)
Open	Genuine inquiring	Wondering and holding a curious stance; using tentative language in trying to figure things out; seeking further information; indicating a motivation to learn more and gain further information, tentative stance	I am interested in Lea's theory and wonder if Lea she sees a connection between vocally strong personalities and politically strong personalities, the ones who make the decisions (01). Interesting, could there be some bullying going on in tutor class? (13). I am thinking she sounds like she is doing all that she should, so it is difficult to know why it isn't working better (18). I hope I'm on the right track (28). Willing to hear about her feelings (04). Based on the discussion above there must be lots of misunderstanding points between us. I think I need to give you more spaces to explain further (05). I should find out clarify whether her thoughts on planning is just selecting from a mish-mash of resources or actually putting something quite explicit together (23).
	Revising own views	Re-examining own views as a result of considering the other person's perspective; recognising own view may be incomplete or mistaken; open to alternative possibilities, considering new information and alternative views	I honestly never knew that appraisal had to align with school-wide professional development (03). Actually it is a good idea, I will try it (05). I am talking on behalf of some other teachers too, but I think she is right, I should just put the focus of this conversation just between her and me (09). I didn't realise it came down to a child, can I help? I really thought it was the paperwork side of things (18).

Open- or closed-mindedness	Content category	Definition: Describes leaders' unspoken thoughts and feelings	Examples (from leaders' LHC)
Closed	Assuming validity of own views	Holding excessive certainty about own view; pushing own agenda; lack of awareness or consideration of other person's agenda; intention to be correct and get own way	He has to agree to this! (07). No, you have bad behaviour management, the children did not get on because you did not manage them (15). A ha, I've got him, he's backtracking (07). I can actually see from your point of view but I don't want to admit it (10),. Come on, tell me what I want to find out (21).
	Making negative attributions about others	Making disparaging character claims and assuming negative attribution of others motives and actions	Ok, he's either a liar or very naïve (07). She is not going to change and she is always right, she has to be right of course because she is the manager (09). There she goes again, defending her actions, not accepting her mistakes and blaming others (17).
	Being dismissive of others views	Resisting to ideas that do not fit with own frame; rejecting other views	I'll just let him get it out … I'll let him go, make him feel heard then get him when he's stopped (07). Right, if I let her share her opinion, then we can get that out of the way and get back to the main issues (18). I can't believe I am hearing this, really? (10)

The Challenge of Complexity: Adaptive Expertise and the Potential of Metacognitive School Leaders

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ABSTRACT: The pandemic crisis highlighted that you cannot prepare for every eventuality. Existing educational leadership practices were inadequate to address the increased uncertainty, complexity, and lack of known solutions (Harris & Jones, 2022). Leaders enacted adaptive leadership practices to innovate and manage the unprecedented complexity and unpredictability. This article argues that the adaptive expertise required to lead during this crisis is also applicable to embracing the complex challenges that leaders continue to face in schools. Metacognition is core to leading with adaptive expertise (Butler, 2021), yet educators are not inherently metacognitive.

This theoretically informed article aims to highlight the importance and potential of metacognition for adaptive educational leadership and to outline practical ways leaders can deliberately utilise metacognitive competencies, such as reflection and inhibitory competence (Kuhn, 2022), to successfully embrace complex challenges. Highly metacognitive educators intentionally engage in ongoing self-driven improvement cycles—monitoring, regulating, and controlling their thinking, emotions, and actions. Metacognitive competencies enhance adaptive leadership practices and increase the sustainability of improvement efforts.

This article advocates for the intentional development of metacognitive competencies in all educators. It is time to realise both the power and potential of metacognition for leading and teaching to improve learner outcomes and wellbeing.

Key words: Metacognition, adaptive expertise, school leaders, complexity, reflection

Introduction

The pandemic created global disorder, unprecedented complexity, and the need to innovate and work in ways beyond current expertise. Almost overnight, this complexity, if not the overwhelming potential for chaos, was palpable. Instead of leaders experiencing an incremental introduction to complexity, the pandemic created a cauldron of complex challenges

and intense emotion, with perceived risks and vulnerability over personal safety and the safety of those for whom they were responsible. There was no doubt that, during this time, leadership expertise was challenged (Hsieh et al., 2023). Each aspect of society—be it politics, healthcare, social systems, economics, and education—had to find ways to protect human lives and continue their core business, which for education, was student learning and wellbeing. The extreme disruption, uncertainty, and vulnerability about the future to which many Western countries were not accustomed, the obvious limits of existing knowledge and routine ways of leading, and the increased political powers and constraints on personal agency were experienced across the globe. Crisis leadership and management at a global level began at haste. This article begins by outlining key learnings during this crisis leadership.

The global pandemic "fundamentally and radically changed education" (Harris & Jones, 2022, p.105). Schools became a "purposeful socio-cultural system" (Kruse et al., 2023, p.181) where school leaders focused on keeping learners and educators safe and learning. Consequently, educators experienced additional workload and increased emotional labour and witnessed increasing inequities among students (Hsieh et al., 2023; Striepe & Cunningham, 2022). Leaders were expected to go beyond their known practices to adapt, respond, pivot, and be flexible under immense time-poor pressures (Hsieh et al., 2023). Leading with adaptive expertise was imperative (Butler, 2021).

During this "crisis leadership" (Striepe & Cunningham, 2022), leaders engaged in relational approaches (Hsieh et al., 2023) that focused on providing pastoral care to students, staff, and the community. Leadership itself was adapted to extend beyond existing roles and responsibilities so that expertise, not formal position, drove leadership (Weick & Sutcliffe, 2001), such as the digital-savvy teachers leading emergency remote teaching. Leaders needed to work collaboratively with a greater range of stakeholders, engage with their diverse views, and share decision-making. Decision-making became "a delicate balance between fast decision-making and the consideration of pressing needs which rarely follows normal day-to-day decision-making processes" (Striepe & Cunningham, 2022, p. 142).

New Ways of Leading

Leaders had little choice but to change their practices. The pandemic had "created the conditions that allow for new insights, knowledge and understandings with positive and lasting impact" (Kruse et al., 2023, p. 184). Innovations within and beyond education, such as vaccinations, population-wide testing, and emergency remote learning, were introduced in record time. Leaders who had previously viewed leadership as mostly stable, predictable, and reliant on learned routines and practices (routine expertise) were, because of the pandemic, forced to question the status quo and reconceptualise the meaning of leadership (Rincones et al., 2021; Torrance et al., 2023). Leaders showed they could act quickly and adapt in ways that contrasted with pre-pandemic times. Adaptive leadership practices were enacted to manage the complexity and lack of predictability (Netolicky, 2020; Torrance et al., 2023).

What Was Learned About Leading in Crises

Fast forward beyond the initial crisis to efficacious vaccines, the dropping of mandated population restrictions, and schools again opening daily. What have leaders, and more specifically school leaders, learned through these disruptive experiences? It is acknowledged that what was done in more stable pre-pandemic times will no longer be the way to lead going forward. Some scholars argue in favour of teaching a set of specific skills for leading in a crisis (Striepe & Cunningham, 2022). This article argues that skills required during times of crisis are also applicable for complex challenges and unexpected events. The pandemic provided a shared "serendipitous moment" (Foreman-Brown et al., 2022), where the discomfort and complexity of living, organising, and leading were experienced on an unprecedented scale. Learnings from these experiences demonstrated leaders could adapt, pivot, be flexible, and respond to the unpredictable challenges during the crisis (Hsieh et al., 2023); these challenges effectively preparing leaders for the day-to-day complex challenges they face post-pandemic. Adaptive rather than routine expertise is needed for sustainable improvement (Margolis & Strom, 2020; Timperley & Twyford, 2022a).

Next, this article briefly outlines the concepts of complexity, adaptive expertise, and metacognition to provide background information before highlighting the importance of metacognition as a core attribute of adaptive expertise for educational leadership.

Complexity

Schools are inherently complex systems with "vast numbers of interacting functions, people, and purposes (Kruse et al., 2023, p. 181). Understanding and attending to this complexity is essential to leading in today's schools. Complexity describes a situation where it is exceedingly difficult to see, keep track of, and make sense of all the interacting factors and moving interdependent parts that impact what is happening (Timperley et al., 2020). Multiple potential causalities with few predictable known solutions make linear approaches ineffective for solution seeking. For example, you cannot take a complex system apart to understand and *fix* it, as the process of dismantling changes the system itself—the system is dynamic and emergent, and the parts make sense within the system (Cochrane-Smith et al., 2014; Timperley et al., 2020; Timperley & Twyford, 2022a).

Complicated systems are different from complex systems. Things that are complicated can be understood by someone with appropriate skills; there is some predictability between cause and effect. Complicated challenges, such as a faulty car engine, can be fixed as there are usually known solutions and routine ways of working. This knowledge can be taught, learned, and used to fix similar challenges. There are few complicated challenges in leading schools.

Leading schools is complex; it is rarely routine, and there are multiple ever-present complexities, challenges, and tensions (Smith & Lewis, 2022; Welton, this issue), all of which are influenced by factors within and beyond the school (Hammerness et al., 2005). Approaches that treat complex challenges as complicated include focusing on fixing different bits, using *either or* thinking (Smith & Lewis, 2022), and attempting to implement linear theories of

improvement. These approaches do not work, as they do not sufficiently take the multiple complexities in schools into consideration (Margolis & Strom, 2020).

Routine expertise is essential; however, the pandemic has challenged the concept of implementing known solutions and has shown that you cannot prepare for every eventuality. All expertise requires deep knowledge. Recognising the limits of one's existing knowledge and skills forces leaders to seek innovative solutions to new problems. This is the essence of adaptive expertise, which is discussed further in the next section.

Adaptive Expertise

The idea of adaptive expertise is commonly linked to Hatano and Inagaki (1986) when they proposed two courses of expertise—routine and adaptive—to explain the difference between one skill that gets faster, more accurate, and automatic with practice and another that uses existing knowledge flexibly and adaptively for the spontaneous development of new knowledge. Routine expertise is associated with using existing knowledge and competencies effectively; it is an approach that is appropriate in stable and predictable environments. Adaptive expertise uses existing knowledge adaptively to generate new knowledge in complex, uncertain, and changing environments.

Adaptive expertise was further theorised to grow out of the tension between efficiency and innovation (Schwartz et al., 2005) and questions about transferring learning from one context to another. These researchers proposed adaptive expertise as a balance between high innovation and high efficiency, which they labelled the "optimal adaptability corridor" (Schwartz et al., 2005). Adaptive expertise requires deep knowledge within specific domains (Grotzer et al., 2021). This knowledge is built over time through experience that can be efficiently and routinely applied, often in an automatic way (Bransford et al., 2005) but it can also be used flexibly to innovate in novel solutions when required. Building adaptive expertise requires knowing both the how and the why (Ng et al., 2022). Rather than considering the two types of expertise as mutually exclusive, Bransford et al. (2005) emphasised that routine expertise is the starting point, "not to eliminate efficiency but to complement it so that people can adapt optimally" (p. 51). Adaptive expertise requires practitioners who recognise when their existing knowledge isn't fit for purpose, notice differences in contexts and be prepared to "wander in the wilderness of potential solutions" (Pusic et al., 2018, p. 821).

Adaptive expertise is proposed as a way of working in complex, unpredictable contexts (Pusic et al., 2018; Timperley et al., 2018). It is commonly referred to as existing knowledge used creatively, flexibly, and adaptively to intentionally gain new knowledge to solve new challenges (Butler, 2021; Le Fevre et al., 2020). Butler (2021) writes that "adaptive expertise requires that individuals learn how to deliberately and intentionally mobilize their knowledge, beliefs, emotions, motivations, and skills/strategies in different contexts in order to engage flexibly, adaptively, and purposefully in iterative cycles of strategic action" (p. 673).

Leaders using adaptive expertise embrace the ever-increasing complexity in diverse schooling contexts (Le Fevre et al., 2020; Timperley & Twyford, 2022a). They understand the difference between working routinely and adaptively, switching between the two as required,

such as when their current knowledge is no longer sufficient. Importantly, they understand the reasons why they need to do this. How do individuals achieve this?

More recently, research into adaptive expertise has shifted towards exploring orientations and dispositions that support or underpin the development of adaptive expertise in users (Le Fevre et al., 2020; Myopoulus & Regehr, 2007). These orientations are either presented as holistic groupings (Grotzer et al., 2021; Le Fevre et al., 2020; Timperley & Twyford, 2022a) or are focused on metacognition and reflective practice (Butler, 2021; Kuhn, 2022; Liu, 2013).

Prior to the pandemic, Le Fevre and colleagues (2020) developed a model of adaptive expertise that they explained using the metaphor of a tree. The roots of this metaphorical tree highlighted the orientations that infused and underpinned decisions; the trunk represented being responsively focused on improvement for all learners; and the branches represented the deliberate acts of leadership. This model resulted from a large-scale 5-year research project involving professional learning facilitators across Aotearoa New Zealand working with school leaders as contributors and collaborators. Various data sources were employed: transcripts from focus groups between facilitators and researchers; self-recorded metacognitive reflections and think-alouds; scenarios and narrative construction and critique; and semi-structured interviews. Researchers interviewed facilitators and their respective school leaders to seek a window into the mostly invisible decisions and choices facilitators made in their work with school leaders. Six orientations, or *roots*, were identified as core for working with adaptive expertise: adopting an evaluative inquiry stance; valuing and using deep conceptual knowledge; being agentic; being aware of cultural positioning; being metacognitive; and bringing a systemic focus (Le Fevre et al., 2020). These six interdependent roots collectively form an adaptive expertise orientation that "informs, nourishes, and supports any particular action" (Le Fevre et al., 2020, p. 7).

After the pandemic, the tree model of adaptive expertise was modified for school leadership by Timperley and Twyford (2022a) as leaders grappled with the unprecedented number of complex challenges. The tree metaphor was replaced with an ongoing loop, which reinforced the inherent fluidity of the overarching attributes, orientations, and qualities needed to flexibly adapt one's thinking, inquiring, and acting to "embrace the complexity, ambiguity and uncertainty in the interests of their students" (Timperley & Twyford, 2022a, p. 8).

Figure 1

Attributes of Adaptive Expertise in Educational Leadership
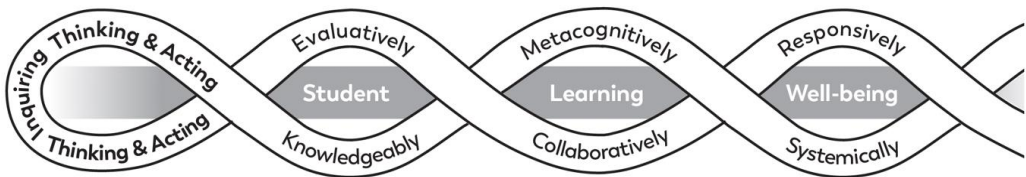
Note. Adapted from "Adaptive expertise in educational leadership: Embracing complexity in leading today's schools," by H. Timperley & K. Twyford, 2022a, *The Australian Educational Leader*, *44*(1), 2 (https://www.acel.org.au/ACEL/ACELWEB/Publications/AEL/2022/1/Lead_Article_1.aspx). Copyright 2022 by ACEL.

This model (Figure 1) proposes that when an adaptive expertise approach is *in use*, the six attributes are deliberately brought together to influence decisions and choices to ensure that student learning and wellbeing remain central to their work (Timperley & Twyford, 2022a, 2022b). The attributes do not act singularly; they are intertwined and interdependent, each building fluidly on the others as the user seeks to understand the current challenge and to ensure progress is monitored and adapted as required. While the interconnections between all the attributes are acknowledged, metacognition is core to enacting adaptive expertise (Butler, 2021; Timperley & Twyford, 2022a, 2022b).

Metacognition

The seminal work of Flavell (1979) proposed the concept of metacognition to explain how we intentionally learn by purposely thinking about our thinking. Flavell proposed metacognition comprises four components: metacognitive knowledge; metacognitive experiences; tasks or goals; and strategies or actions that influence each other directly and indirectly (Mevarech & Kramarski, 2014). Seven years later, Brown (1987, as cited in Mevarech & Kramarski, 2014) nuanced Flavell's components by including an explicit element of control gained through regulatory processes to form knowledge of cognition and regulation of cognition.

In the 1990s, Schraw and colleagues further refined both these components. Knowledge of cognition became differentiated into knowing about oneself and one's strategies and knowing why and when to use which strategy. Regulation of cognition was further divided into planning, monitoring, and evaluation (Schraw et al., 2006). These complex monitoring (metacognitive knowledge and experiences) and control processes (metacognitive skills) are essential for adaptive expertise (Bransford et al., 2005).

Metacognition is a complex construct commonly viewed as a meta-level process that "organises and governs the knowing activity" (Kuhn, 2022, p. 75). Metacognition involves actively monitoring, regulating, and controlling cognition, emotion, and motivation. It is a broad term including multiple aspects (Kuhn, 2022) and implicated in many complex skills such as reflection, problem-solving, collaboration, and self-regulatory processes—all essential for leading effectively. In the literature, metacognition is accepted as a "fuzzy" concept with conceptual confusion (Perry et al., 2018). This fuzziness relates to the difficulty in understanding how metacognition works given its unseen complex nature, the range of different phenomena involved (Efklides, 2006), and the numerous and ambiguous terminologies that are often used interchangeably (Mevarech & Kramarski, 2014).

Metacognitive learners, including leaders, use their knowledge, skills, and experiences to self-monitor and self-regulate their cognition, emotion, and motivation. Metacognitive thinking is intentional, driven by the user to take control of their learning by using overlapping knowledge, strategies, and actions. The user's metacognitive processes continually adapt and update their thinking, acting, and inquiring. Metacognition in action suggests the user, when metacognitively competent and willing, is engaged in an ongoing self-driven improvement cycle. This approach is especially relevant for leading in schools at all levels.

Metacognition for Educational Leadership

This section highlights four ways metacognition strengthens educational leadership practices in crises and when seeking solutions to the intractable complex challenges that are ever-present today. Metacognition does this by (a) being an intentional leadership orientation, (b) being an essential attribute of adaptive expertise, (c) connecting with reflection, and (d) improving problem-solving and decision-making. Next, it argues that metacognition, through inhibitory competence (Kuhn, 2022) and the intentional development of metacognitive competencies in all educators, is crucial to supporting sustainable improvement for learners.

An Intentional Leadership Orientation

Being metacognitive, whether intentionally driven or conceptualised as a disposition (Kuhn, 2022), involves "conduct[ing] oneself in a metacognitive fashion" (p. 81), that is, being able to intentionally inquire, reflect, monitor, and regulate one's thinking, emotions, motivations, and actions with the intention of using feedback to adapt and improve the quality of one's knowledge and understanding (Kuhn, 2022; Le Fevre et al., 2020). Being intentionally metacognitive puts you in charge of your thinking and knowing to lead more effectively towards your goals.

For example, a metacognitive orientation involves monitoring or being on guard that things are going as planned. More importantly, it also entails noticing when things begin to deviate or are no longer working as expected. Novel events and responses appear unexpectedly when working with complex challenges. Noticing discrepancies involves using deep knowledge of what is expected yet being mindful and responsive to the subtle cues that indicate things are deviating from the probable outcome and "what the anomaly might mean" (Weick, 2010, p. 545). A metacognitive orientation places the user at the ready, willing to inquire, evaluate, update, and adapt their actions in light of this new evidence and any inconsistencies (Argyris & Schön, 1974). This orientation means they are open and willing to find better solutions to complex challenges. Metacognition enables learners to self-regulate and control how they learn and act.

Being metacognitive also enables a deeper understanding of ourselves as individuals, learners, and leaders, including what makes us tick, our beliefs, biases, and motivations; what triggers our responses, especially our default actions and emotions; and how these influence others. Being metacognitive about our strengths and shortcomings provides insight into how we lead, the way we interact with others (Schnellert & Butler, 2020), and what we need to focus on and update for improvement.

A Key Attribute of Adaptive Expertise

Leading with adaptive expertise is fundamentally about using existing knowledge and routine expertise to flexibly and adaptively generate new knowledge to address novel, complex challenges. Metacognition is a key attribute of adaptive expertise that enables the individual to *take charge* when it is necessary to deliberately inquire deeply into what is happening, respond to

what is identified, and evaluate if these actions are working as intended. How might leaders use their metacognitive knowledge and skills when addressing a complex challenge?

First, metacognitive processes enable the leader to gain a deep understanding of what is happening in a new complex challenge and at times of crisis. Things change rapidly in these dynamic situations, and leaders need to be on guard, doubt their current thinking, and be alert to the novel nature of what is happening—"that something is out-of-place, unusual, or unexpected" (Weick, 2010, p. 545). Next, the leader checks through self-regulatory processes whether their existing practices are sufficient to understand the challenge and if known solutions will or will not work (Hatano & Oura, 2003). Doubt is positive, as it signals to the leader that they must intentionally inquire deeper and attend to what else may be happening in the context.

Metacognitive thinkers ask how and why this situation differs from other contexts. Assumptions and intuition used to make sense of the context are noticed, (double) checked, and updated. All these processes involve being sensitive to emergent cues and understanding the challenge at greater depth; or, as sensemaking scholars Karl Weick and colleagues (2005) suggest, we need to *get better stories* before taking action.

Sensemaking is a helpful concept to consider alongside metacognition, as how we make sense of complex challenges influences our actions. There is so much going on in schools, especially in times of crisis, that the cognitive load for leaders makes it most likely that we follow familiar ways of working. Sensemaking helps us to understand how we make meaning from the cues or information in the context. Do we rely more on personal cognitive frames, prior experience, and knowledge to make sense of what is happening (Coburn, 2001; Spillane et al., 2002)? Being metacognitive helps us understand why we select the information we do while concurrently ignoring other cues among the multitude available. Articulating our reasons why is part of working with adaptive expertise (Hatano & Inagaki, 1986).

As leaders, being intentionally metacognitive involves paying ongoing attention to changing cues to "create up-to-date sense out of an emerging pattern" (Weick, 2005, p. 58) and avoiding the tendency to simplify cues into existing familiar patterns (Weick & Sutcliffe, 2001). We may overlook or ignore cues when we lack the knowledge to recognise they are important (Weick, 2010). Keeping a watchful eye on what is happening enables the metacognitive leader to update and deepen their "story" based on their evolving interpretation. However, sensemaking depends on the quality and relevance of the leader's knowledge (Veenman et al., 2006). This means being aware of the adequacy of one's knowledge to produce meaningful hypotheses and recognising when one needs to enlist others who may bring different and more relevant knowledge and skills.

Sensemaking is predominantly a retrospective (Weick, 2005) and reflective process. Reflection for a metacognitive leader is focused on making sense rather than spending time looking for evidence to prove existing thinking (Weick, 2010). As a result, understanding of the ambiguity, complexity, and uncertainty in a context expands.

Connecting With Reflection

Reflection is an essential process sitting within the metacognitive construct. Reflection enables the user to gain insights and make sense of their thinking, experiences, and emotions, such as considering the impact of their actions on others. Both Dewey (1933, as cited in Liu, 2013) and later Schön (1983), in his work on the reflective practitioner, viewed reflection as an important skill for teachers (Liu, 2013). However, being highly skilled at reflection is only the start; the focus and process of reflection are important.

Reflection is metacognitive when it is focused on monitoring, evaluating, and regulating your thinking and feelings (Merkebu et al., 2024), thereby providing "heightened internal observation" (p. 1). This process enables noticing things we may not usually be aware of (Epstein, 2008). For example, reflection focused on how your leadership decisions and current systems and processes impact equity for diverse learners in the school urges you to become more aware of learners' and their families' experiences, and the impact of your leadership actions. Critical reflection is especially important for addressing complex inequity challenges. Critical reflection focuses on one's own and societal understandings of underlying social and political assumptions of education, as well as the systems and processes used to critique, question, and analyse what is happening for learners.

Understanding the assumptions, biases, and frames of reference we bring to leading, inquiring, and evaluating if and when these may be getting in the way (Timperley et al., 2014) enables leaders to implement changes to their actions to create a more socially just society and improved outcomes for all learners. Being able to do this in real-time allows us to learn faster. Metacognitively reflecting on how we make meaning of the world and why we choose to do what we do is an integral step towards taking charge of monitoring and regulating cognition, emotion, and action for improvement.

Improving Problem-Solving and Decision-Making

Effective problem-solving is essential in times of crisis and complexity. Problem-solving is more than fixing or eliminating known problems with increasing efficiency (Bransford et al., 2005). Being metacognitively aware of how you think and interpret cues when solving leadership challenges and during decision-making processes can improve the effectiveness of outcomes. Studies have shown that expert and novice leaders continue to use their initial thinking or framing of a problem and solution even when prompted to use robust problem-solving processes (Mintrop & Zumpe, 2019). This suggests the persuasive nature of leaders' existing thinking.

Reflection supports leaders in evaluating their actions. Internal observation of our problem-solving and decision-making actions encourages us to see if these actions are primarily based on assumptions, prior knowledge, and experience without sufficient attention to what is happening and/or with limited questioning and monitoring of how and why these decisions were made. Reflection also makes us aware of our emotional responses when making decisions, which, if problematic, can motivate us to change our ways of responding in the future.

Reducing what is happening to fit with prior experience, making assumptions about the problematic challenge, focusing predominantly on the solution, and over-relying on existing

solutions are all unlikely to solve the challenge (Hinnant-Crawford, 2020). Simplifying and normalising complex challenges into routine challenges can be avoided through being metacognitive. Instead of relying on existing routines, concepts, and known solutions, metacognition (reflection, monitoring, regulation) enables better stories by seeking deeper understandings, such as how the challenge is distinct or different from others. Metacognitive leaders recognise the limits of their knowledge; they can interrupt their strong, action-oriented drive to provide a solution, and they are prepared to say they don't know (Hinnant-Crawford, 2020). These leaders seek knowledge from diverse sources by working collaboratively with others. Collaborating with others is a deliberate leadership action where those included, if safe to do so, share their thinking about, framing of, and reasoning for the challenge (Timperley et al., 2014). These leaders can tolerate the uncertainty and ambiguity of sharing control.

Seeking diverse views is essential for problem-solving and decision-making, as talking with like-minded colleagues quickly becomes an echo chamber. Multiple perspectives enrich the story beyond that which the leader and their team can formulate, especially when listening to and learning from the stories of those closest to the "action" and most affected by it (Fullan et al., 2022; Hinnant-Crawford, 2020). During these collaborative interactions we "learn from one another but also because group interactions bring insights and perspectives to the surface that otherwise might not be made visible to the group" (Spillane et al., 2002, p. 406).

Metacognition and self-regulation are core when collaborating (Muijs & Bokhove, 2020). For example, metacognitive leaders not only recognise when their beliefs are different from others, but they are also able to "construct a representation of another's thinking" (Kuhn, 2022, p. 77), in effect, finding a way to walk in another's shoes. In contrast, those without a metacognitive orientation for improvement will likely repeat their points of view and listen for confirmation. External prompting is then necessary to see another's point of view. These metacognitive competencies enhance leading with adaptive expertise and assist leaders when working with complex challenges and at times of crisis to form sustainable improvement.

Supporting Sustainable Improvement

Many improvement efforts in education are not sustained (e.g. Darling-Hammond et al., 2007; Kennedy, 1999); things return to how they have always been (Cuban, 1993). There are multiple theories as to why this occurs, including teacher non-engagement and resistance to change (Zimmerman, 2006), disconnected top-down change (Margolis, 2020), lack of knowledge, confidence, and skills (Fullan, 2008), and perceived risk (Le Fevre 2014; Twyford et al., 2017). The range of plausible theories in the literature highlights the complexity of leading for improvement.

Leading improvement is more likely to occur when individuals self-monitor their learning (Bransford & Schwartz, 1999). Reflection, and specifically critical reflection, is essential to uncover blind spots and gaps in our understanding which typically go unnoticed. It is necessary for leaders, especially during times of crisis, to have the ability to know where to focus their metacognitive energies and to take a learner stance to "anticipate, understand and lead through complexity" (Torrance et al., 2023, p. 1113). Being intentionally metacognitive enables improvement.

While metacognitive competencies enable users to evaluate new information and change their thinking in light of new information, learning and adapting to new situations often requires "letting go" of previous thinking and beliefs. Metacognitive strategies are needed to intentionally interrupt problematic and/or default ways of thinking (Katz & Dack, 2013) to avoid responding with quick and unsubstantiated judgements. We need to unlearn to learn.

More recently, the concept of inhibitory control has been proposed to support unlearning so that new learning can occur (Kuhn, 2022). Inhibitory control is a metacognitive competency that prevents actions that interfere with new learning, such as relying on existing beliefs, using easier or less effective strategies, and preferring familiar ways of acting. This highly metacognitive competency requires identifying what is getting in the way and therefore, needs to be unlearned by inhibiting it from one's attention in order to be able to focus on the new learning. This could involve a problematic practice to be unlearned, such as resisting deficit thinking and blaming parents. While easy to write, unlearning is quite difficult because individuals can hold two competing personal theories of action simultaneously and be unaware of the apparent contradictions (Vosniadou et al., 2021). One way to identify what needs to be unlearned is to differentiate current thinking, beliefs, and assumptions from the new learning. This can be done by comparing the two competing personal theories of action (e.g., deficit versus asset-based thinking) to understand how and why they differ so that metacognitive monitoring and regulation can focus on the areas in competition.

Collaborating with others is a key leadership action that requires listening to another's points of view (Kuhn, 2022). Letting go of your initial assumptions and inhibiting your thinking to listen to others is especially important in intercultural interactions. Genuinely inquiring into another's point of view, rather than listening to confirm your own, enables gathering richer stories to understand complex challenges at greater depth.

Being intentionally metacognitive puts the user in "maximum control of what they think and how the processes they engage in to revise their beliefs, individually and in interaction with others" (Kuhn, 2022, p. 73). Kuhn reminds us that having metacognitive competence is not enough on its own if the individual is unwilling to put in the additional effort for inhibitory control. Inhibitory control provides a way to prevent existing ways of thinking and associated practices from returning and allows for new thinking and ways of working to become embedded.

Needing Intentional Development

One driver for writing this article is the evidence provided by Zohar and Ben-Ari (2022) that many educators are not highly metacognitive. These authors found that, while knowledge of metacognition and how to teach this to others can be learned, it was not easily acquired; it was also neglected in most professional development and rarely addressed in large-scale reforms. It cannot be assumed that leaders are metacognitive—they may also need to learn how. Currently, metacognition remains a source of untapped potential.

Not only are leaders more effective when they are metacognitively driven to improve learner outcomes and wellbeing, they are also aware of how they develop themselves and their teachers as change agents to embrace the complexity in their classrooms (Timperley et al., 2018). Developing metacognitive competencies in others is an essential step in the shift from teachers

and leaders requiring the external control of others towards them becoming self-regulated and in charge of their own learning and decision-making to improve learner outcomes. For Hammerness and colleagues (2005), the difference relates to where the regulatory control sits:

> People with high levels of metacognitive awareness have developed habits of mind that prompt them to continually self-assess their performances and modify their assumptions and actions as needed. People who are less metacognitive rely on external feedback from others to tell them what to do and how to change. (p. 376)

External regulation is where opportunities to develop metacognition in another individual are initiated by someone else. Questions and prompts guide individuals to uncover their thoughts and feelings and encourage digging into their reasons. This could involve a leader prompting for reflection before, during, and after an event or the leader providing "think alouds" to show their reasons for decisions, including what and why they ruled some options in and others out. External regulation is intentional, timely, ongoing, and resource intensive.

Co-regulation is proposed as an intermediary step between external control and self-regulation. Strategies such as reflection, inhibitory control, and self-regulation can be developed in others by gradually reducing external assistance and control, then moving to co-regulatory strategies until the individual can intentionally take charge (Horowitz et al., 2005). Metacognitive prompts and routines based on identified problem areas and anticipated triggers can support embedding new learning and practices. Prompts focus on deepening understanding by encouraging reflection on thinking, feelings, and actions. Depending on the situation, prompts such as "What is happening here? How do you feel? What are you thinking? What makes you think that? and What will you do and why?" encourage thinking about one's thinking and feelings and why we do what we do. Co-regulation through intentionally engaging others to support you in thinking about your thinking, emotions, and actions enables practising how to be metacognitive, as well as a greater likelihood of preventing a return to familiar ways of working.

The next step towards being metacognitive is becoming self-regulatory, where the individual takes charge of their thinking, emotions, and actions. Developing metacognition to become self-regulated is better done embedded in the context rather than as isolated learning. Butler (2021) infers that developing metacognition in others as part of encouraging adaptive expertise requires avoiding building it in a routine manner. She suggests "instructional supports that are explicit enough, but also open enough, to foster adaptive expertise" (Butler, 2021, p. 670).

Metacognitive educators, willing to adapt and regulate their thinking, emotions, and actions through self-monitoring and regulation, are more likely to sustain changes to their leadership and teaching practices and become agents of change in schools and classrooms. Metacognition is central to adaptive expertise and sustainable improvement.

Summary

This article argues that the adaptive leadership expertise required during the pandemic crisis is also applicable to addressing the ongoing complex challenges and unexpected events that

leaders face in schools. The disorder, complexity, and uncertainty created by the pandemic challenged school leaders' existing conceptions of leading. Almost overnight, leaders had to become "more fluid, agile and responsive" (Torrance et al., 2023, p. 1113). Leaders showed they could adapt their ways of working, acknowledged they did not have the answers, sought help from those with expertise, and collaborated more widely through necessity (Netolicky, 2020). This disruption enabled an opportunity for leading with adaptive expertise.

Adaptive leaders use deep educational knowledge and expertise flexibly and adaptively to generate new knowledge to address novel complex challenges and crisis situations. These leaders bring personal orientations to their leadership to "embrace the complexity, ambiguity and uncertainty in the interests of their students" (Timperley & Twyford, 2022b, p. 8).

Metacognition is key to leading with adaptive expertise. Leaders' metacognition, like a back-end digital operating system, is constantly working and updating in the background, always ready to take charge and coordinate leading with adaptive expertise as and when required. In keeping with this computing metaphor, metacognitive leaders take charge of coding their personal algorithms to keep focused on their leadership thoughts, feelings, and actions. They no longer rely on externally derived algorithms, like social media news feeds curated for the generic leader. Developing metacognition for learning and leading as part of an adaptive expertise approach reframes educators as self-regulating change agents capable of ensuring the sustainability of improvement efforts focused on all learners.

This article advocates for leaders to embrace metacognition as an intentional orientation to enhance leading in times of increasingly complex challenges in schools. Metacognition enhances leadership by intentionally monitoring, regulating, and controlling one's thinking, feelings, and actions. Highly metacognitive leaders take charge of their leading and learning; they adapt and change their thinking in light of emerging cues and feedback; they improve their problem-solving and decision-making. With practice and intent, they can develop a metacognitive disposition (Kuhn, 2022).

Intentionally metacognitively competent leaders understand that educators are not inherently metacognitive and are responsible for purposely developing metacognitive competencies in others, including their positional leaders, as part of building schoolwide adaptive expertise. These school leaders plan, monitor, and evaluate how they will (i) support educators to understand what metacognition is, (ii) provide opportunities for all their educators to learn how to become more metacognitive, (iii) model being a metacognitive leader, and (iv) demonstrate why metacognitive competencies are central to improvement efforts. These leaders know the importance of developing self-regulatory educators within and beyond classrooms for sustainable improvements for all learners.

Conclusion

Given the centrality and importance of metacognition in embracing adaptive expertise to address complex challenges, it makes sense to broaden the development of metacognition beyond each school and its educators to the wider education context. This article has advocated for policymakers, and leader and teacher-educators to proactively embed the development of

metacognitive competencies in all learning opportunities, from teacher trainees to aspiring and current school leaders. It is time to realise the untapped potential for improvement connected to being intentionally metacognitive.

Competing Interests and Funding

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Principals Engaging Middle Leaders in School Improvement: Case Studies From New Zealand and Hong Kong

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ABSTRACT: *Middle leaders are perceived as ideal change agents for school improvement, given their understanding of teaching practice and working relationships with both classroom teachers and senior leaders. However, little is known about how principals can effectively engage middle leaders as change agents. This article describes a positive cross-case study of two primary school principals (one in New Zealand and the other in Hong Kong) who took over schools in crisis and effectively engaged middle leaders in school improvement. The case studies are based on interviews with principals and middle leaders as well as observations of improvement meetings. The study examines the principals' theories-of-action—their beliefs, actions, and*

consequences—and provides helpful guidance for practitioners and those supporting schools on ways to engage middle leaders to become change agents, especially in times of crisis. The study highlights the importance of middle leaders' and principals' collaborative work to bring about school improvement.

Introduction

The field of education continues to face numerous crises that disrupt teaching and learning and therefore requiring urgent and decisive action, particularly from school leaders (Smith & Riley, 2012). Crises can be broadly categorised into systemic issues, socioeconomic disparities, and more acute crises such as pandemics or natural disasters (Brion, 2021). Crises can have both immediate and long-term impacts, including loss of instructional time, psychological stress among students and educators, widened educational inequalities, and loss of educational attainment (UNESCO, 2020). To prevent, respond to, or recover from a crisis, leaders are tasked with the continual solving of "wicked" problems that precede or emerge from crises. Wicked problems are characterised by their complexity and resistance to straightforward solutions (Briggs, 2007; Rittel & Webber, 1973). Examples of wicked problems in schools may include declining enrolment numbers, a lack of teaching staff, or dynamic external changes (such as the emergence of AI). Some wicked problems are also impacted by larger crises, such as financial cuts to school budgets. Solving wicked problems involves various stakeholders and perspectives.

School improvement arguably involves the solving of wicked problems. Problems and solutions are ongoing, complex, and variable across different contexts and require a collective effort throughout the school (Meyer et al., 2020). School improvement approaches that attend to wicked problems demand adaptive leadership in which principals encourage learning, trial new approaches, and involve other stakeholders in the system (Heifetz & Linsky, 2017; Rasmussen & Boyce, 2022). While principals assume organisational and strategic responsibility for all aspects of the school—from setting the school vision to shaping school policies and organisational structures and routines (Harris et al., 2019; Lipscombe, Tindall-Ford, & Lamanna, 2023)— middle leaders, such as department heads, year-level leaders, or lead teachers, play a pivotal role in solving problems and translating the vision of school improvement into actionable initiatives at the classroom level (Bryant & Rao, 2019).

While middle leaders contribute to school improvement (Nehez et al., 2022) as they are positioned between different sources of influence and change (Lipscombe, Tindall-Ford, & Lamanna, 2023), their success relies heavily on their principal's ability to engage them in school improvement efforts. Middle leaders often have some autonomy in decision-making (Highfield & Rubie-Davis, 2022), but their level of influence varies across roles and sites (Bento et al., 2023). Their contributions to school improvement are both enabled and constrained by the principal's support (Bryant & Walker, 2024; Gurr, 2019). Research suggests principals should foster distributed leadership approaches to ensure middle leaders can actively engage in and

contribute to school improvement (Gurr, 2023; Leithwood et al., 2020). While this approach is promising, some researchers caution that it can be hampered by the intensification of middle leaders' workload and issues with communication, trust, and power between senior and middle leaders (Ghamrawi et al., 2023; Lárusdóttir & O'Connor, 2017).

This qualitative, positive cross-case study explores principals' theories-of-action (Argyris, 1974; Argyris & Schön, 1978) when engaging middle leaders in school improvement at two primary schools—one in New Zealand and one in Hong Kong. It is a "positive" case study as it focuses on two principals who effectively engaged their middle leaders in school improvement. It examines the beliefs driving the principals' specific actions, the consequences those actions had on middle leaders, and the school-wide consequences. This study is important as research has highlighted the significance of middle leaders acting as change agents for school improvement and the impact principals have on their effectiveness. However, little is known about how principals can effectively engage middle leaders as change agents in school improvement rather than "just" instructing them to implement senior leaders' decisions (Lipscombe, Tindall-Ford, & Lamanna, 2023).

Middle Leaders and School Improvement

Middle leaders occupy a unique position within the school hierarchy, serving as the linchpins of school improvement by acting as key brokers between senior leadership and teachers (Lipscombe, Tindall-Ford, & Lamanna, 2023). They typically occupy a dual role of teacher and leader. As teachers, they work alongside their teacher colleagues, leading quality teaching and learning by example (Shaked, 2023). As leaders, they work with senior leaders to influence, support, and manage teacher professional development, teacher performance, and improved instruction (Hefnawi, 2024; Meyer & Hanna, 2022). This type of leadership—leading from the middle—is often more influential than principal leadership (Leithwood, 2016), as principals can be positioned too far away from the classroom to directly influence teaching and learning.

However, some tensions around middle leaders' positionality can hamper their ability to engage effectively in school improvement. Leithwood (2016) cautioned that rather than being bureaucratic administrators burdened with paperwork, middle leaders must be positioned as lead learners if they are to directly impact school improvement efforts. This is echoed by Héreginé Nagy and colleagues (2024) who suggested that middle leaders' responsibilities often remain primarily administrative and are delegated by the principal. A lack of role clarity exacerbates the tendency for principals to allocate administrative work to middle leaders on an ad hoc basis (Ghamrawi et al., 2023). Additionally, middle leaders can lack leadership authority, seeing themselves as part of the teaching staff rather than formal leaders (Héreginé Nagy et al., 2024). As a result, middle leaders experience difficulties in positioning themselves to effectively influence and mentor colleagues.

When utilised effectively, middle leaders can assume a variety of responsibilities in school improvement. Although their roles and responsibilities vary considerably across contexts (Lipscombe, Tindall-Ford, & Lamanna, 2023), one of their key responsibilities entails the interpretation and implementation of school improvement initiatives and policies (Hong, 2010).

Middle leaders often bear responsibility for translating mandated policies into classroom practices (Pan & Chen, 2024) while providing feedback and insights to senior leadership regarding the feasibility and effectiveness of proposed strategies (Harris, 2008). In the classroom, middle leaders lead school improvement by developing the capacity of teachers (Gramaje & Buenviaje, 2023), and they work closely with their colleagues to provide support in areas such as planning, monitoring student progress, and implementing curriculum change (De Nobile et al., 2024). As experts in curriculum and pedagogy, they can be responsible for the professional learning of their colleagues (Tang et al., 2023) through, for example, mentoring (Lipscombe, De Nobile et al., 2020), observing and being observed (Harris et al., 2024), and leading collaborative problem-solving with their teams (Patuawa et al., 2023). Their work is highly relational (Grootenboer et al., 2015), and as such they are often responsible for building trust with and amongst colleagues (Edwards-Groves & Grootenboer, 2021), facilitating teaching and learning conversations (Lipscombe, Buckley-Walker, & Tindall-Ford, 2023), advocating on teachers' behalf to senior leaders (Lipscombe, Tindall-Ford, & Grootenboer, 2020), and developing collaborative cultures and teams (Gramaje & Buenviaje, 2023). However, middle leaders often report constraints on their school improvement efforts, such as intensified workloads, diffusion of responsibilities, staffing issues, and time management (Lambert, 2023; Lárusdóttir & O'Connor, 2017). Thus, engaging in school improvement presents many dilemmas and wicked problems for middle leaders, and as such, they require intentional and strategic support from the principal (Gurr, 2019; Shaked, 2024).

To successfully support middle leaders in school improvement, principals can build middle leaders' capacity through, for example, professional development in instructional leadership (Irvine & Brundrett, 2016; Shaked, 2023), middle leadership (Lipscombe, Tindall-Ford, & Lamanna, 2023), and mentoring (Blake & Fielding, 2023). Additionally, Bryant and Walker (2024) stressed the importance of principals intentionally and contextually designing internal structures to develop middle leaders and support their leadership of specific school agendas. Middle leaders also require support to align organisational priorities with the teams and individuals they lead; this involves them setting clear, strategic, and well-defined goals linked to school improvement (Bendikson et al., 2020; Meyer et al., 2023), changing organisational environments such as team structures (Ho et al., 2022), and engaging in organisational decision-making processes (Aaltonen, 2024; Bento et al., 2023).

This Research

Previous research has thus highlighted the importance of middle leaders' active engagement in school improvement efforts and the support mechanisms that enable their leadership. Many of these supports (or mechanisms) require the input of the principal, yet few studies have directly documented principals' day-to-day leadership strategies for effectively engaging middle leaders in school improvement efforts. This research presents a positive case study of two primary school principals (one in New Zealand and the other in Hong Kong) who supported their middle leaders to lead school improvement efforts and lift their schools out of crises. While set in two distinct national contexts, the study is not comparative in exploring

practices across cultural settings but is aimed to illustrate context-responsive yet widely applicable practices. It was guided by the following research question: *How do principals actively engage middle leaders in school improvement?*

Method

This research used a theory-of-action approach to understand the principals' beliefs, actions, and consequences of their actions. In the following section, we outline this approach, provide details on the two cases, and describe the data analysis procedure.

Theory-of-Action

Argyris and Schön (Argyris, 1974; Argyris, & Schön, 1978) introduced "theories-of-action" to understand organisations' and people's approaches to resolving problems. There are three components to a theory-of-action: governing variables, actions, and consequences. Governing variables are defined as values, beliefs, or assumptions that actors need to operationalise or satisfy when resolving problems. While Argyris and Schön (1978) often focus on the values that drive people's actions, in this study, the focus was on principals' beliefs they held about improvement and how to engage middle leaders (Argyris et al., 1985). Governing variables can lie in the physical environment, such as regulatory demands or available resources. The second component of a theory-of-action is a person's actions in relation to the problem, which are driven by their beliefs and values. Equally important are the *non-actions*—those steps that, consciously or unconsciously, are not taken because they do not satisfy or align with the beliefs. The final component of a theory-of-action is the *intended* or *unintended* consequences. Intended consequences are those that leaders espouse and aim for when dealing with a problem. However, a leader's actions (or non-actions) might lead to an unintended consequence. Consequences can be linked back to leaders' actions and the beliefs that drive these actions. Theories-of-action thus explain the links between people's beliefs, the actions they take that are driven by those beliefs, and the intended or unintended consequences of their actions. Examining theories-of-action allows us to understand not only *how* people behave but *why* they behave or act in certain ways (e.g., Meyer & Hanna, 2022; Meyer & Slater-Brown, 2022; Peeters et al., 2020; Sinnema et al., 2022).

Participants

This research presents a detailed cross-case analysis of two primary school principals' efforts to engage middle leaders in school improvement and position them as change agents. The principals were identified as effective at engaging middle leaders by seeking recommendations from district administrators and professional development providers who work closely with a large number of schools the study contexts. While the rich data and close focus on both schools' micro-practices were beneficial to this study, they also put the schools at greater risk of

identification. Thus, as well as anonymising data in the research and reporting process, we did not include a table providing participant demographics to avoid identification.

Totara School is situated in a low socioeconomic area of a large New Zealand city. The school enrols about 500 students, most of whom are from an ethnic minority and have English as a second language. When the new principal arrived about five years prior to this study, the school was in crisis. It was under statutory management and in a desolate state, and there were regular visits from the health authorities and police. In a climate of teacher shortages, the school was also hard to staff, and academic achievement was low.

Sterculia Primary School in Hong Kong is a rural school of a similar size. The principal arrived six years prior to this study and inherited an authoritarian leadership legacy, which involved absent planning, significant student behavioural issues, and middle leaders unaccustomed to active leadership roles. Additionally, a decade-old government policy and lower birth rates had led to a sharp decrease in student intake in the district, thus intensifying the need for the school to enhance its performance. The new principal faced the urgent task of improving the school's appeal to parents in a context where middle leaders and teachers were accustomed to merely following directions.

Data Collection

Data were collected through one or two 1-hour semi-structured interviews with the principal and two to four middle leaders from each school. During the interviews, participants were probed in-depth about their beliefs, actions, and consequences of principals' actions. While interviews still rely on retrospective self-reporting, recounting specific actions and behaviours, researchers can still source relevant data by asking participants about their specific actions and behaviours, their motivations and beliefs, and their recollections of resulting consequences. These questions can uncover participants' theory-in-use rather than their espoused theory. To corroborate interview data, we also observed meetings focused on improvement between senior and middle leaders to somewhat mitigate the limitation of self-report data. After the interview recordings were transcribed, the principals and middle leaders were able to review their transcripts and confirm or elaborate on any of their responses. Ethical approval for this research was granted from universities in New Zealand and Hong Kong.

While we aimed to triangulate our data and mitigate the limitation of self-report data, limitations in our research need to be acknowledged. First, given that we only visited schools over the course of a couple of weeks, we relied on the leaders' reports on the crises and their responsive collaborative work. Second, our specific focus on the positive work the school had achieved might have missed an exploration of challenges along the way. Third, by focusing on widely applicable practices, we have not elaborated on variations emerging from different societal-cultural contexts. Future research could follow schools over a longer time period and involve closer observation of the work in schools or even shadowing of principals to understand the complex nature of the relational work they undertake.

Data Analysis

Data coding was carried out using NVivo software. A Miro board was also utilised to visualise the resulting theory-of-action for each principal. The initial analysis of each case was based on the principals' interview transcripts, and the first layer of codes from these data included the following: the principals' beliefs about school improvement; their engagement of middle leaders to lead school improvement; their actions; and the consequences of their actions. Middle leaders' transcripts, along with our notes from meeting observations, were then added and used to corroborate the principals' theories-of-action. When drafting the principals' theories-of-action on the Miro board, all related beliefs, actions, and consequences were grouped, and colour coded to enable identification of linkages between them. The consequences of the principals' beliefs and actions were then categorised to differentiate between those that impacted middle leaders' engagement in school improvement and those that had a school-wide impact. The data analysis process involved constantly revisiting the coded data sets to check details and assess the accuracy of our inferences. An important step included identifying which beliefs linked to which action(s) and which actions led to which consequences. This was a complex process, as linkages can exist across beliefs and actions; that is, one belief can be linked to multiple actions, and vice versa. Moreover, the data needed to be re-examined for beliefs as actions are more easily identifiable. We then conducted a cross-case analysis to compare the principals' theories-of-action across the two cases for commonalities and differences. In particular, we sought to identify commonalities and differences that could inform the work of others.

Findings

This cross-case analysis identified common themes among principals' theories-of-action in relation to their engagement of middle leaders in school improvement to address the crises confronting their schools. Table 1 outlines the two principals' theories-of-action side by side. We then present a more detailed analysis of their common themes: (a) principals' beliefs; (b) principals' actions; (c) the consequences of these actions on their middle leaders' engagement in school improvement; and (d) the school-wide consequences.

Table 1

Principals' Theories-of-Action

Component	Totara	Sterculia
Principal Beliefs	• Strong vision for improvement—achievement • Need to develop future leaders • Leadership should be collaborative and distributed • Need to celebrate success to motivate staff and students	• Strong vision for improvement—behaviour • Need to develop future leaders • MLs need to take an active role • Need to celebrate success to motivate staff and students
Principal Actions	• Created a strong focus on student outcomes and evidence of improvement • Established organisational structures, allowing greater collaboration • Engaged MLs in joint problem-solving in improvement meetings • Distributed leadership for improvement initiatives across MLs • Built shared understanding and capacity through PLD • Triangulated data for ML appointments • Provided extra management hours for all ML • Ensured success; student and staff work was celebrated	• Created a strong focus on student behaviour and new curriculum initiatives • Regular meetings with MLs about school improvement • Engaged MLs in inquiry meetings with students and parents • Assigned design of new curriculum to MLs with support and resources • Built shared understanding and capacity through engaging university expert • Triangulated data for ML appointments • Promoted MLs who take initiative to the next pay scale • Ensured success; student and staff work was celebrated
Consequences on MLs' engagement in school improvement	• Kept a strong focus on improving student outcomes • Had a shared understanding of the improvement process • Felt leadership was genuinely shared • Took a proactive role in meetings and during problem-solving • Extended similar leadership practices to their teacher teams • Felt part of leadership and decision-making • Felt supported and confident in their leadership • Felt valued in their work	• Designed and implemented new curriculum • Developed a sense of ownership over the curriculum • Introduced other improvement initiatives • Actively sought advice from principal and university experts • Felt valued in their work • Experienced competitive attitudes between subject leaders

Component	Totara	Sterculia
School-wide consequences	- Improvement in student outcomes in mathematics - Improvement initiative in mathematics is embedded - Coherence in practice across leadership - High trust environment	- Improvement in student behaviour - Comprehensive moral and civic education programme embedded

Note. ML = middle leader; PLD = professional learning and development

Principals' Beliefs

Both principals arrived at their schools five to six years prior to this study, and both schools were "in crisis". Both schools lacked strategic leadership and visions, including middle leader engagement in any form of school improvement.

The principals displayed a similar set of beliefs and had a strong vision for school improvement focused on student needs. Totara's principal concentrated on raising achievement in mathematics and then in writing; Sterculia's principal focused on behavioural issues and saw establishing a new civic education curriculum as a solution. Both principals' priorities and initiatives aligned with their vision for the school and their understanding of the school crisis. They also had strong beliefs about leadership and how to engage middle leaders in the necessary improvements.

First, the principals were motivated to develop future independent leaders and sustain leadership capacity. Both principals noted that they needed to build the capacity of their leaders and that there needed to be a "pipeline" of leaders. They wanted their leaders to be capable and proactive problem solvers:

> I'm at the end of my career; I need the leaders to see and hear the questions I'm asking so that they can inform their practice. (Totara Principal)

> I need to enhance my capacity to enact change in this school. To achieve this, I require more capable middle leaders to collaborate with me and make it happen. (Sterculia Principal)

Furthermore, both believed that middle leaders should be actively engaged in the improvement work, and emphasised the need for collaborative and distributed leadership:

> Leadership doesn't have to be the deputy principals, the two people who sit up managing and doing a lot of the organisation. It comes from within; it comes from passion and talent and critical thinking and research. (Totara Principal)

> I encouraged them to develop the curriculum collaboratively, sharing only my ultimate goal. I meet with them regularly to ensure they have all the necessary resources. (Sterculia Principal)

Both principals were aware of the importance of celebrating success and showing appreciation for people's work to build and sustain motivation:

I want them to enjoy their work; enjoying their work comes back to feeling rewarded, and so to do that, I want them to be seen. What I am doing is trying to build their image, so the staff see them as the people making a difference. (Totara Principal)

Never blame your colleagues; as leaders, we should create a more supportive environment for them. Showing appreciation motivates them. (Sterculia Principal)

Principals' Actions to Engage Middle Leaders in School Improvement

The principals' beliefs described above drove their actions to engage and work with their middle leaders in school improvement efforts. Six main themes were observed across the two principals' actions: (a) engaging middle leaders in planning for improvement; (b) distributing leadership for improvement initiatives; (c) building leadership capacity and shared understanding; (d) ensuring the strategic appointment and promotion of middle leaders; (e) providing support for middle leaders' work; and (f) celebrating success.

Engaging Middle Leaders in Planning for Improvement

Both principals engaged their middle leaders in the problem-solving and planning process for school improvement. Totara's principal had weekly meetings with her middle and senior leaders in which they worked through a structured process, engaged with evidence, and inquired into concerns and barriers to improvement. The chairing of the meeting rotated, and the principal endeavoured to ensure an open forum for discussion, critique, and support. According to one middle leader,

As middle and senior leaders we did the [problem-solving tool] together. We were looking at things like our writing resources, what leadership challenges there are in terms of writing, whether there has been a great emphasis in terms of leadership, whether there is a writing leader, whether there is someone monitoring the system, does our school have a shared understanding of writing. Thinking about all causes rather than just defining the problem. (Totara ML1)

Similarly, Sterculia's principal engaged her middle leaders early in the improvement process. To discover the causes of the behavioural issues and dropping student numbers, she asked them to meet with parents and students; she also invited middle leaders to share their perspectives. She met with the middle leaders regularly to discuss the progress of ongoing initiatives and to provide support. But while the middle leaders had taken on more responsibility and were showing initiative, the work environment still seemed to be more hierarchical than collaborative, with middle leaders seeking approval before they took the next steps:

Whenever we draft any printed materials, such as cards, worksheets, or booklets, I first seek the principal's approval. This practice ensures that all our decisions are secure and supported. (Sterculia ML3)

The principal explained how she tried to foster a more collaborative approach:

The middle leaders were quite reserved; no one stepped forward to share new ideas, instead waiting for instructions. To encourage engagement, I demonstrated how to

innovate by designing slogans for our new curriculum. I invited them to participate, and they began to imitate my approach. (Sterculia Principal)

Distributing Leadership for Improvement Initiatives

The two principals had slightly different approaches to distributing leadership for improvement initiatives. At Totara School, the principal and deputy principals took charge of the administrative and organisational aspects of the school, such as property, finances, and reporting. Each improvement initiative was led by one of the four middle leaders, thus ensuring that leadership for improvement was distributed across the team. For example, one of the middle leaders led the maths initiative, which was implemented two years prior to the study, while another led the later initiative to improve writing. Each middle leader had fortnightly meetings with the principal to discuss their progress and flag any challenges to the implementation of their initiative. Aside from leading an improvement initiative, middle leaders were also in charge of a year-level teaching team, and they met with one of the deputy principals each week to discuss this leadership work. Thus, while the overarching leadership structure maintained "traditional" hierarchies, the principal noted that they were progressing to a distributed and shared sense of leadership across the school:

> It is still quite a traditional structure with the principal sitting there, two deputy principals underneath and then my middle leaders. As much as I would like to say we are 7 people and we are all leading, that is where we will get to. (Totara Principal)

Sterculia's principal followed a slightly different approach by asking her middle leaders to take on the responsibility for the curriculum design as a team, while she offered regular support and brought in external partners to provide feedback. She encouraged her middle leaders to present new leadership initiatives and joined their meetings to provide support without taking over the discussions. As one middle leader explained:

> She has given me the freedom to design everything, including the curriculum content, teaching aids, and colleagues' duties. Her main concern is ensuring that my ideas align closely with the goals of values education. (Sterculia ML4)

Building Leadership Capacity and Shared Understanding

Both principals noted the importance of building their middle leaders' capacity. They therefore brought in external professional development providers to build their middle leaders' understanding of how to lead improvement. Totara's principal highlighted that providing professional development for the whole team ensured they had a shared language and the right tools and structures for improvement:

> That is why [leadership PLD] was so good in starting us off. You can implement these [tools] in a meeting. Use that to open up your thinking. By talking about relational trust and having a reasonably structured conversation around it, you can move your group forward. But if you haven't got the tools, or the structure, or the language, you don't

know where to start, and it seems overwhelming. I think small things can make a difference. (Totara Principal)

Sterculia's principal brought in a university expert for professional development and to support her middle leaders' curriculum development activities. This principal's aim was similar to Totara's principal, in that she wanted to build a shared understanding of the school's vision as well as coherence in leadership practice:

I need the university experts to train them. Sometimes, they can convey messages on my behalf that I am unable to express directly to the middle leaders. They are invaluable in facilitating this communication. (Sterculia Principal)

A middle leader at Sterculia reflected on this approach:

I understand why she included university experts. These experts have emphasised the importance of aligning our initiative with her vision. They've requested multiple revisions of the plan to ensure it meets both the principal's and their expectations. (Sterculia ML1)

Ensuring the Strategic Appointment and Promotion of Middle Leaders

There were differences between the two school systems in terms of how principals could recognise middle leaders' work through appointments and remuneration. In the New Zealand system, middle leaders receive release from teaching for their leadership roles, while in Hong Kong, middle leaders can move up the pay scale. There was a difference in the principals' approaches to using such incentives. Totara's principal gave all middle leaders the same teaching release, which was greater than what is typical for middle leaders at primary schools. Sterculia's principal used the different pay scales to reward middle leaders for being proactive and engaged. Thus, middle leaders knowingly received different pay.

Both principals drew on a range of evidence to make decisions about appointing (Totara) or promoting (Sterculia) middle leaders. Totara's principal sought feedback from her deputy principals, and she asked the staff, "Who do you ask for advice?" to ascertain who took on informal leadership within the school. She also talked to the professional development facilitator to gauge who had engaged with the new learning. Once she had identified a teacher who showed leadership potential, she had a conversation with them:

The feedback from the [PLD] facilitators … was that [this teacher] was really thoughtful, listened to what they were saying, and he would make the changes. Then, listening to the staff, asking well, who do you go to when you want to develop and they say we go to [teacher]… He had the disposition to help and support people without shouting from the rooftops or telling anyone … then I started looking at his practice, talking to him, getting him some reading, and having some challenging conversations. (Totara Principal)

Sterculia's principal was similarly rigorous in making promotion decisions by seeking different perspectives on middle leaders' work: She had regular meetings with middle leaders to glean their perspectives on improvement and the curriculum project; she met each leader individually to discuss career pathways; and she observed how middle leaders related to colleagues during meetings and school events. She also sought feedback from the university expert working with the school:

I want to ensure that I promote the right person who truly earns respect from their colleagues. Some people know how to behave in front of me, but I want to avoid making a wrong decision regarding promotions. (Sterculia Principal)

Providing Support for Middle Leaders' Work

Both principals provided support systems for their middle leaders in their improvement work. Totara's principal set up a meeting structure so that middle leaders had regular improvement-focused meetings with the whole leadership team; a deputy principal offered middle leaders support with leading their year-level team, and the principal advised them about leading their improvement initiative. As noted above, the principal also provided greater than usual workload relief and a time allowance for the middle leaders. Aside from the regularity of the meetings, middle leaders noted how the principal pushed and supported them:

The principal is always looking for your next step, which is really good. She is always looking to develop people; she is always pushing people up and saying, "Have you thought about this? You could do this", or giving people the opportunity, people who want to. Giving them the opportunity and then the support, so giving opportunity and [PLD] or other support to get you going. (Totara ML2)

Similarly, Sterculia's principal attended the middle leader meeting to support their curriculum development initiative, and she also met with middle leaders individually. She further brought in a university expert to support the initiative and invited external school leaders to provide feedback. Finally, she provided financial support when the middle leaders requested a designer to produce the teaching materials.

They expressed a need for additional financial support to design teaching materials, as we produce our own textbooks. Consequently, I utilised the school's reserves to support this initiative. (Sterculia Principal)

Celebrating Success

Both principals strongly believed in celebrating success and showing appreciation for people's work to build and sustain motivation. They publicly celebrated the success of both the improvement initiatives and the work of individual middle leaders. While Sterculia's principal organised an event for middle leaders and invited parents to show their appreciation, at Totara School, success was celebrated at weekly whole-school meetings:

On a [day] admin meeting, we have all the staff together. It is the only time in the week we have everyone—office, learning assistants and caretaker. I get my changemakers—people who are shifting the achievement—to do little presentations and celebrate, and it is so neat because the caretaker will say gee, that was really good, good on you. (Totara Principal)

Both principals also encouraged their middle leaders to present their improvement work at conferences or at other schools:

I want to honour the middle leaders' efforts. Promoting them on the pay scale is a crucial way to show my respect. Once promoted, they can represent our school at workshops and events. (Sterculia Principal)

Consequences for Middle Leader Actions and Engagement

Principals' actions impacted how middle leaders engaged in school improvement and how they perceived their roles. Four main themes were identified: Middle leaders (a) engaged actively in the improvement work, (b) developed a sense of ownership over improvement initiatives, (c) felt part of a leadership team, and (d) felt supported.

First, middle leaders started to engage more actively in improvement work, with observed meetings showing open discussions and shared thinking. Middle leaders used more initiative and direct leadership practices with their teachers. For example, a middle leader at Sterculia School applied for funds for a new initiative and another modelled practice for their teachers:

I've decided to apply for quality education funds to support my new initiative of integrating value education into my subject. (Sterculia ML1)

In my subjects, [teachers] integrate value education into every lesson. Recognising the challenge, I demonstrate how to do this effectively through lesson observations for my colleagues. (Sterculia ML2)

Middle leaders at both schools developed a sense of ownership for the improvement initiatives they were leading and expressed pride and motivation based on their work in the school:

I am quite motivated by that, I guess I'm trying to get other people to see, you can see the outcome of your work. (Totara ML2)

I am extremely proud of this teaching package. I worked closely with my team to explain its use to both teachers and parents. This package has become a signature element of our value education program. (Sterculia ML2)

Middle leaders noted that they felt part of the leadership team. One leader at Totara described how weekly team meetings enabled collaborative problem-solving and planning:

We plan things together as an SLT [senior leadership team] and MLT [middle leadership team] … I think decision-making is through a collective rather than an authority or one person. That is the impression I always have here. It is stressful in terms of workload, but in terms of leadership it is very student-centred leadership, very much what can we do to support the students. (Totara ML1)

Finally, middle leaders at Totara felt supported and valued in their work by the principal and the wider team:

The support comes through as a team. I feel supported by the whole middle leadership team, but also, when we have our MLT meeting, it does include the principal and the DPs [deputy principals]. You always know that, if you need support or you are a bit stuck or something comes up that you are not entirely sure about which way you are going to go with, you can always go and talk it through with the DPs or [the principal]. I feel really

well supported and also with my other middle leadership team colleagues as well. (Totara ML2)

While middle leaders at Sterculia also noted the support from the principal and the opportunities to pursue leadership opportunities, one mentioned that the remuneration scheme also created competition between middle leaders of different subject areas:

Before she became principal, we felt constrained. Now, with her leadership, I have the opportunity to pursue my dreams and take on a leadership role. (Sterculia ML3)

She may not be aware, but there is now some competition among us MLs. Everyone is cautious about maintaining a balance between different subjects. (Sterculia ML2)

School-Wide Consequences

Both schools implemented the improvement initiative they were working on and saw improvement in outcomes, which related to mathematics in Totara school and behaviour in Sterculia school:

You may have noticed that our students are well-behaved. They greet every teacher and visitor. They show respect to others whether they are playing, chatting, or in the classroom. They are active but also attentive. (Sterculia ML4)

Last year our achievement rate went quite high in terms of maths. About 70% of our students are achieving at or above now compared to 3 years ago when it was 49%. That has been a huge shift. (Totara ML1)

Middle leaders at Totara mentioned a high level of trust within the team.

I feel like I can trust the people that I'm working with to know that I will be supported even if I make a mistake. (Totara ML1)

Those are supports, and the support of the team, and having a high trust team of people as a support. (Totara ML2)

At Sterculia, however, the middle leaders acknowledged that, while they trusted the principal, competition between middle leaders still needed to be addressed for trust to be extended across the wider team.

Discussion

Through the above analysis of two positive cases, we can distil a set of propositions from the principals' theories-of-action to equip middle leaders for school improvement. These propositions seem to play a particularly important role in moving schools from crisis management to working collaboratively towards school improvement and equity in outcomes. However, they also apply across contexts wherein leaders aim to utilise adaptive leadership to prevent crises and solve the "wicked" problems that emerge from complex and uncertain education environments (Heifetz & Linsky, 2017; Smith & Riley, 2012).

The first proposition is that, rather than setting the school vision themselves, principals need to intentionally cultivate a shared vision by directly engaging middle leaders in the school improvement process from the outset. This includes principals and middle leaders working collaboratively to identify problems, analyse causes, and design improvement strategies. While the call for middle leaders' involvement in organisational decision-making processes has been made elsewhere (Aaltonen, 2024; Bento et al., 2023), we stress the importance of the genuine and collaborative nature of such involvement.

Second, principals need to adequately distribute leadership for these initiatives. This cultivates middle leaders' ownership, their identification as leaders, and their active and focused engagement in school improvement. They are no longer translators of others' visions and policies but are change agents and part of the leadership team. Such positioning addresses the often-noted challenges around middle leaders' identity and self-efficacy as leaders (Ghamrawi et al., 2023). As noted by Lárusdóttir and O'Connor (2017), the process of distributing work requires principals and other senior leaders to share and potentially "let go" of power, authority, and control and to work more collaboratively. Principals often espouse "letting go", but this is not always evident in principals' work (Harris, 2003). In the presented case studies, principals' beliefs focused on building a pipeline of capable and proactive leaders. This belief drove them to genuinely engage middle leaders in this collaborative and distributed work and to shift middle leaders' work from routine administration (Héreginé Nagy et al., 2024) towards shared and active leadership around the respective school improvement initiatives. These findings reinforce others' contentions that effective middle leadership requires proactive and intentional principal leadership (Bryant & Walker, 2024; Gurr, 2019).

Third, principals must navigate system constraints to establish the structures necessary to support and develop middle leaders' capacity for school improvement. Both principals found ways to create opportunities for collaborative work by distributing leadership responsibilities and building relational trust. The case studies provide detailed approaches to building supportive cultures by introducing specific roles, practices, tools, and meeting routines that ensure multiple and regular touchpoints for support and collaboration across the leadership teams in both schools. Consequently, middle leaders perceived themselves as supported members of their leadership team; this cultivated collegial trust in one school and trust in the principal in the other. This proposition extends research that has emphasised the relational role of middle leaders (Edwards-Groves & Grootenboer, 2021; Grootenboer et al., 2015) by revealing how principals can take responsibility for prioritising middle leaders' relational trust and ensuring their efficacy as relational leaders. In this sense, relational trust emerges as a shared endeavour among principals and middle leaders. Our detailed cases thus shed further light on the perspective that the development of middle leaders in any sustained way requires attention to organisational structure (Bryant & Walker, 2024).

Fourth, principals need to build middle leaders' understanding and skills in leadership and school improvement through external and internal support. External strategies are common for leadership development, although professional development specific to the role of middle leaders is rare (Lipscombe, Tindall-Ford, & Lamanna, 2023). Internal strategies are also often noted to be beneficial (Bryant & Walker, 2024), but in larger secondary schools, responsibility for middle leaders' development often falls to other senior leaders. Both principals from our case study

schools ensured middle leaders engaged in external professional development that focused on their leadership capacity, as leading requires a different set of knowledge and skills than that required of classroom teachers (Irvine & Brundrett, 2016; Shaked, 2023). Internally, principals deliberately engaged in mentoring (Lipscombe, De Nobile et al., 2020), observations and feedback (Harris et al., 2024), and collaborative problem-solving (Patuawa et al., 2023). These internal and external strategies demonstrated both principals' proactive approach to addressing challenges to middle leaders' efficacy (Lambert, 2023; Lárusdóttir & O'Connor, 2017); their supportive and developmental interactions with middle leaders were apparent across contexts.

Finally, principals need to evaluate and recognise (potential) middle leaders' leadership as a valuable asset for achieving school improvement. The principals in the two case study schools systematically identified and evaluated middle leaders and their work. They promoted middle leaders who displayed strong relational skills, rewarded them through allowances such as workload relief or pay increases, and celebrated their success publicly in internal and external fora.

Conclusion

Over the last decade, a growing body of research has delineated the work of middle leaders in schools, including how they engage teachers, how their work is structured, and the conditions that support or impede their efforts. Limited research has examined the nexus between principals' and middle leaders' school improvement interactions. This study provides a detailed analysis of principals' theories-of-action and presents helpful guidance for practitioners and those supporting schools by exemplifying context-responsive yet widely applicable practices. It highlights the importance of principals' organisational work to engage middle leaders in school improvement efforts to prevent, respond to, and recover from crises. While principals in schools that are already on improvement trajectories may employ similar practices, the initial crises in both case study schools created a sense of urgency that impelled principals to engage middle leaders to identify intractable problems and co-construct strategies to address them. This study, therefore, stresses the importance of relational work between principals and middle leaders and it recognises that principals' underlying beliefs and motivations can shape their communication, their collaborative efforts, and the relationships of trust and power they forge with their middle leaders.

Competing Interests and Funding

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The Adaptive Expertise of Curriculum Middle Leaders in Secondary Schools

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ABSTRACT: This investigation describes the results of a recent empirical study investigating the leadership practices of 60 curriculum middle leaders in New Zealand secondary schools and the extent to which they utilise adaptive expertise to build teacher collaboration. A descriptive analysis of the practices middle leaders enact and the challenges they face has been undertaken on quantitative and qualitative data gathered through a questionnaire completed by curriculum middle leaders employed in nine state-funded secondary schools. In an increasingly complex education environment of ongoing policy change in curriculum and assessment, and the requirement to mentor their teaching staff, these middle leaders reported a range of effective middle leadership strategies. The analysis of these practices revealed evidence of middle leaders' agency in developing teacher collaboration, relational trust, and equitably distributing resources. Participants in this study expressed their ongoing need for professional learning and support that builds their own capability to meet the ongoing requirements of change leadership within diverse secondary school settings.

Key words: Curriculum middle leaders, secondary schools, resilience, trust, change

Introduction

Due to the rapid growth of globalisation worldwide, school leaders and teachers find themselves in an increasingly complex environment in which they face recurring policy change (Zadok et al., 2024). The ongoing requirement to adapt as a leader arises from the intersection of multiple challenges, including social, environmental, technological, political, economic, and

health challenges, all of which impact the school system. School leadership is of crucial importance in providing certainty, hope, guidance, and efficiency of resources for teachers and students as well as ensuring open and trusted communication among the school community (Chatzipanagiotou & Katsarou, 2023). School leaders are required to adapt in order to recognise and prioritise challenges in a context of accelerated change due to the rapid adjustment of policy settings (Townsend et al., 2017). Adaptive leadership is often required within the school environment due to the requirement to modify existing systems and practices to accommodate sudden shifts in policy, often with limited financial resources, expertise, or experience (Wylie, 2011). Although the responsibility to accommodate crises and change in the secondary school setting is often led by a school principal or senior leader, the pivotal work to modify systems and practices at the classroom level inevitably falls to middle leaders and teachers (De Nobile, 2021). There has been consistent research into the effective leadership practices of middle leaders over the last 25 years (Harris et al., 2019; Leithwood, 2016), however there has been limited investigation regarding how middle leaders enact their agency to build resilience within the teaching teams they lead. Research in this area is important because if change is to be managed effectively in schools, professionals within the school such as curriculum middle leaders need to be encouraged to develop their leadership of both their own team and across the organisation (Kershner & McQuillan, 2016) in order to develop collaborative behaviours.

Leadership Agency

Adapting practices during times of crisis and change is a complex and multifaceted process that requires curriculum middle leaders to enact their agency to build resilience in the teaching team within their school department. In this research, "agency" is defined as "the capacity to initiate action" (Bandura, 2001, p. 3); therefore emphasising individuals within a school context as self-organising, proactive, self-reflective, and self-regulating, rather than being reactive organisms shaped by environmental forces or driven by internal impulses (Bandura, 2006). Curriculum middle leaders in secondary schools use agentic practices such as relationship building and collaboration (Leithwood, 2016) in maintaining the stability and continuity of education while also addressing the evolving needs of students, staff, and the broader school community. In the face of various challenges, such as natural disasters, social unrest, public health crises, or organisational restructuring, middle leaders enact their agency through practices such as demonstrating agility, empathy, and strategic thinking (Grootenboer, 2018) to navigate uncertainty and lead effectively. Leadership takes place in the context of problems and challenges experienced by those invested in the school community (Heifetz, 2010), and curriculum middle leaders demonstrate their leadership when challenges occur that impact the department they lead. When curriculum middle leaders translate their agentic practice into effective instructional practices, they create higher levels of resilience across the teaching team in the secondary school context (Highfield et al., 2024). The ability to mobilise individuals within subject departments to meet the challenging realities and increasing demands of the school environment lies at the heart of leadership practice (Heifetz, 2010). Heifetz explained that leaders

are responsible for developing the adaptive capacity of the community or group to meet challenges, solve problems collaboratively, adapt their ways of thinking and operating, and take ownership for the adaptive work required.

Developing Agency in Others to Support the Adaptability of the Team

Organisational and operational adaptability require cohesive teams with adaptive leaders who encourage agency within individual team members so they can take on responsibility (Dunn, 2020). This type of adaptive leadership is well demonstrated within the realm of the secondary school curriculum department. Effective leaders understand that agentic teachers can better cope with changing and challenging environments (Ebersöhn & Loots, 2017). Teachers benefit from the combined expertise within the group; and in departments where collective agency is encouraged, teachers collaborate to gather their knowledge, skills, and resources and act in concert to shape their future (Evert & Stein, 2022). These forms of agency are intertwined, and together they influence individuals' behaviour and decisions, thereby shaping the capacity for group development and change (Bandura, 2001, 2006). Teacher agency can be both individual and collaborative; the teacher is a positive agent who acts creatively with free will and independence (Eteläpelto et al., 2013). Teachers' own agency has a powerful impact on their classroom practice, student learning outcomes, school reform, and other professional endeavours (Ahmad & Shah, 2022; Charteris & Smardon, 2015).

To date, teacher agency research has been conducted mainly at the individual level, with relatively few studies addressing the collective agency of teacher educators within their professional groups and organisations, such as curriculum departments in a secondary school (Ibrahim, 2006). This is somewhat surprising, given the profession is inherently collaborative, which implies the importance of teacher agency within a collective group (Hökkä et al., 2017) that promotes a culture of continuous improvement within communities (Evert & Stein, 2022), underpinned by an ethos of relational trust (Edwards-Groves & Grootenboer, 2021). In the right conditions, adaptive leaders seek to use their energy (Steward, 2014) to empower their colleagues to act, even in times of ambiguity when the path is not clear (Dunn, 2020). This is evident in the research of Marks et al. (2000) who found that, in order to respond swiftly to rapidly changing opportunities and demands, teams with strong communication and well-developed group norms were able to implement evidence-informed approaches in complex environments.

The Importance of Building Trust in Curriculum Departments in Secondary Schools

Research within the schooling improvement literature on the impact of high levels of trust between education colleagues has been evolving over the last 20 years (Edwards-Groves &

Grootenboer, 2021). The seminal work of Bryk and Schneider (2002) highlighted how a culture of trust in a school provides the conditions for individuals to initiate and sustain activities required to improve student learning. Tschannen-Moran (2004) argued that a culture of trust is critical to meet the goals of educating diverse students because the energy required needs to be specifically focused on increasing the professional capacity of teachers (West et al., 2005). However, energy alone is not sufficient; it must be purposefully directed through agency to make choices which sustain the momentum focused on improvement (Steward, 2014). This energy also needs to be directed toward what Muijs (2007) described as trust that promotes mutual respect and credibility between professionals from different backgrounds that reduces the perceived level of threat that change is often proposed to represent (Daly, 2009). In this article we argue that curriculum middle leaders have a crucial role in their demonstration and enactment of relational work and the role of trust in motivating, facilitating, and sustaining school-based development (Edwards-Groves & Grootenboer, 2021) is essential in building a collaborative and therefore resilient culture within a curriculum department. If curriculum middle leaders are to orchestrate conditions which enhance teacher agency and shared transformation, they need to cultivate relational trust within a range of leadership contexts (Browning, 2014; Northfield, 2014) for effective collaboration and professional learning (Edwards-Groves & Grootenboer, 2021).

Interactions That Support Relational Trust and Collaboration

The interactional dimension of relational trust is a key factor in effective middle leadership work. In a recent empirical study conducted in an Australian secondary school context, which is structurally and culturally similar to New Zealand, Edwards-Groves and Grootenboer (2021) found that one of the key aspects of relational trust enacted by middle leaders is the interactional dimension. This involves creating open and safe spaces for collaborative dialogue among teachers. Trust and dialogic practice in middle leadership is seen as essential to teacher professional development, and collective activity is considered a quality of educational change (Oolbekkink-Marchand et al., 2017). Teachers who are empowered by middle leaders to exercise agency in their professional roles are more likely to engage in continuous professional learning and growth, collaborate with colleagues, reflect on their practice, and adopt new instructional strategies and approaches, all of which lead to improvements in teaching effectiveness and student outcomes (Darling-Hammond & Richardson, 2009).

The New Zealand Context for This Study

The world-wide movement toward education policy and practice that devolves the responsibility for educating young people to schools, and therefore school leaders, is strongly evident within the New Zealand education system (Townsend et al., 2017). This has resulted in principals and curriculum middle leaders taking responsibility for the implementation of

government requirements at the school level. However, there is widespread variance between schools, including the resources they have to support change initiatives and the expertise they can call on (Alcorn &Thrupp, 2012). These variations are shaped by the schools' socioeconomic context and geographic location, parental and student expectations and aspirations, resourcing and donations by parents, and students' sociocultural diversity (Alcorn & Thrupp, 2012).

Government directives are often focused on the aspiration for improved student outcomes, and as in many jurisdictions, the management and administrative role of all school leaders in the New Zealand secondary school context has increased (Townsend et al., 2017). External accountability measures have accentuated expectations of middle leaders in relation to both school-level reporting and teacher-level performance management (Highfield et al., 2024). Consequently, this accumulation of responsibility has contributed to conditions conducive to devolved responsibilities and greater distribution of leadership and accountability, with curriculum middle leaders held accountable for the academic results of students studying in their department (Youngs, 2014). Curriculum middle leaders are expected to be active in curriculum design and support learning environments through the pastoral care of students, while also meeting the quality assurance requirements associated with national forms of assessment (Youngs, 2014).

Although the majority of curriculum middle leaders are able to access some form of leadership development, it is not mandatory, and a New Zealand based study conducted by Bassett and Shaw (2017) suggested many middle leaders felt inadequately prepared in their role. Middle leaders reported learning through trial and error rather than through formal leadership development (Bassett & Shaw, 2017). Therefore, it is not surprising that there are high levels of dissatisfaction and stress within the secondary education sector (Post Primary Teachers Association [PPTA], 2016). In a survey conducted with 13,994 New Zealand secondary school teachers, 43% of whom held a curriculum leadership role in a secondary school, middle leaders ranked activities which had a negative impact on their role. They listed tasks such as managing changes in the performance appraisal process, dealing with digital technologies, conducting quality assurance for assessment procedures, and recruiting suitable staff. These respondents were also concerned about coping with an unmanageable workload, planning and monitoring resources and budget, taking responsibility for professional learning, and navigating crisis management when there were staffing issues (PPTA, 2016). Despite the clear evidence of the influence of curriculum middle leaders on student academic outcomes (Highfield & Rubie-Davies, 2022), there is limited empirical research in the New Zealand context on the important contribution curriculum middle leaders make to the schooling improvement agenda and to addressing equity concerns for students under-served by the education system (Highfield & Woods, 2023).

This study examined the reported leadership practices of curriculum middle leaders in state-funded secondary schools. In the New Zealand context, these middle leaders are required to lead a curriculum department of teachers and report to a deputy principal. Depending on the size of the school and curriculum area, these middle leaders could have up to 40 teachers directly reporting to them, and they may also manage a substantial budget. Crucially, they are conduits for school policy and are often required to lead and champion change initiatives (Highfield &

Woods, 2023) and critically influence content and pedagogical approaches, while at the same time shaping teacher commitment and job satisfaction (Sothinathan et al., 2024). School leaders have a profound effect on supporting student learning outcomes through their influence on teachers' attitudes and emotions (Day et al., 2020), which is also evident in the influence of middle leaders due to their intermediary position in secondary schools (Harris et al., 2019; Sothinathan et al., 2024). Middle leaders play a vital role in supporting the professional growth and mentoring of their staff members; which positively impacts staff well-being (Lipscombe et al., 2020) and builds resilience during times of crisis. Their work may involve providing emotional support, access to mental health resources, and opportunities for professional development to help teachers navigate the challenges they are facing (Highfield &Woods, 2023) in order to build resilience in the face of adversity.

This study seeks to identify the middle leadership practices that contribute to the building of resilience and agency within teams of teachers at department level. The research questions that have informed this study are as follows:

1. How do middle leaders demonstrate their agency through leadership practices?

2. How do middle leaders build collaborative teams through their leadership practice?

3. What support do curriculum middle leaders identify as being required to support their leadership work?

The 60 participants in this study were curriculum middle leaders who can be defined as classroom teachers with a formally acknowledged school leadership role leading a curriculum department. They are also perceived as experienced classroom practitioners with a broad sphere of influence, working within and between the school level senior leadership team and the classroom teachers in the departments they lead (Grootenboer et al., 2023; Lipscombe et al., 2020; Tindall-Ford et al., 2024).

Method

This article reports on the middle leader responses to two dimensions from a larger questionnaire which used Likert scale responses and an opportunity for participants to comment using their own examples and ideas. The dimensions described in the questionnaire items were developed from the leadership domains identified in the Ontario Leadership Framework (Leithwood, 2016) for relevance in a New Zealand context. The first dimension is *Building relationships and developing people.* The items within this dimension investigate the extent to which curriculum middle leaders use their agentic practices to develop the teaching practices of staff in their department and to build trust with colleagues and students. The second dimension is *Developing the organisation*, which investigates the extent to which curriculum middle leaders distribute leadership and encourage collaboration (Leithwood, 2016). These dimensions were investigated as they relate most closely to the research questions for this article in that they elicit participant responses regarding middle leader agency, building teacher resilience, and supporting adaptive practices.

Data Collection

The study was conducted in accordance with the Declaration of Helsinki. The study design was ratified by the University of Auckland Ethics Committee (protocol number 20433) on March 1, 2023. Informed consent was obtained from all participants involved in the study. Once ethical approval was granted, a recruitment email was sent to the principal of all secondary schools in New Zealand who were requested to forward the survey links to the staff in their school if they consented for staff to be invited to engage with the research. Quantitative and qualitative data were collected using a confidential electronic Qualtics questionnaire designed to understand the middle leadership practices occurring in New Zealand secondary schools. These questionnaires were sent to curriculum middle leaders and teachers by principals who agreed for their staff to participate. Middle leaders who volunteered to complete the questionnaire were required to indicate their levels of agreement on a series of Likert scales and provide further ideas or examples of their practice by writing in the comments sections. Once completed, the questionnaires could be submitted confidentially by participants directly to the research team.

Just 18 school leaders agreed for their staff to participate in the survey. This was a low overall response rate at school level and reflects the assertions of Holtom et al. (2022) who explain that there is a propensity for leaders of organisations to decline participation in research due to the extensive demands on both their time and the perceived additional burden on their staff. Although there was a low response rate to the study at a national level, the percentage of colleagues who participated in schools whose principals did agree to distribute the questionnaire within the school was positive. A representative sample of 60 participant responses was selected from nine representative diverse state-funded secondary schools who had agreed to participate throughout New Zealand (Table 1). Participants from these schools were selected because the school response rate from middle leaders was over 50% which therefore strengthened the validity and reliability of the results and mitigated any non-response bias of the data from those nine schools (Fincham, 2008). The higher response rate in the selected schools also provided data that were representative of gender and individuals who led departments from a range of curriculum areas, noting that 13% of respondents didn't indicate their curriculum area. All questionnaires with completed Likert scale responses were included in the data analysis, but within these responses, 25% did not provide any qualitative comments. Six of the selected schools with participating curriculum middle leaders have a school roll of over 1,000 students and three schools have between 500–1,000 students. Five schools are situated in regional towns or rural areas, and four schools are situated in cities, thus providing a well-rounded sample of participant middle leaders who have a range of curriculum specialisations and work in a variety of school contexts.

Table 1

Demographic Details of Participants

		Gender		Learning area								
		M	F	English	Languages	Math	Science	Social Sciences	Technology	The Arts	Health & PE	Didn't say
		%	%	%	%	%	%	%	%	%	%	%
Gender	M	**38** (23)		11 (1)	50 (1)	60 (3)	50 (2)	29 (2)	56 (5)	33 (3)	71 (5)	12 (1)
	F		**62** (37)	89 (8)	50 (1)	40 (2)	50 (2)	71 (5)	44 (4)	67 (6)	29 (2)	88 (7)
Learning area	English	4 (1)	22 (8)	**15** (9)								
	Languages	4 (1)	3 (1)		**3** (2)							
	Math	13 (3)	5 (2)			**8** (5)						
	Science	9 (2)	5 (2)				**7** (4)					
	Social science	9 (2)	14 (5)					**12** (7)				
	Technology	22 (5)	11 (4)						**15** (9)			
	The Arts	13 (3)	16 (6)							**15** (9)		
	Health & PE	22 (5)	5 (2)								**12** (7)	
	Didn't say	4 (1)	19 (7)									**13** (8)

Note. Values in brackets show participant numbers.

Data Analysis

The questionnaire design included opportunity for participants to respond to Likert scales for each dimension and the results were analysed using descriptive statistics (Table 2). Qualitative responses provided in relation to the two dimensions (Table 3) and comments related to the additional support required by curriculum middle leaders (Table 4) were also analysed. Thematic analysis (Braun & Clarke, 2012) was utilised to provide common themes and insight into the middle leadership practices they reported enacting alongside their perceived development needs.

Results

The results are reported in a form designed to answer the research questions. Quantitative and qualitative responses are reported in relation to the middle leadership practices enacted that demonstrate their own and others' agency and therefore their ability to build resilience within the teaching team in the department they lead. A summary of participants' responses regarding the further support they identify as being required to support their leadership in a context of crisis and change is also provided.

Table 2

Quantitative Responses Reporting Curriculum Middle Leader Practices

	Leadership practice	Question - In my role as a learning area leader I:	Middle leaders (n=60)		
			SA/A	Neutral	D/SD
Practices that demonstrate curriculum middle leader agency to build teacher resilience	Relationship building	Provide support and demonstrate consideration for individual staff members	100%		
		Build trusting relationships with staff	98%	2%	
		Build trusting relationships amongst staff	97%	3%	
		Build trusting relationships with students and families	93%	7%	
	Developing the organisation	Build a collaborative culture	95%	5%	
		Distribute leadership	81%	17%	2%
		Structure the organisation to facilitate collaboration	83%	15%	2%
		Allocate resources to support learning	83%	15%	2%

Key: SA—Strongly agree; A—agree; N—neither agree nor disagree; D—disagree; SD—strongly disagree

Although the quantitative results in the relationship-building dimension shown in Table 2 are largely positive, there was a less positive response for distributing leadership, facilitating collaboration, and allocating resources to support learning. The qualitative results in Table 3 reveal a more nuanced explanation of the efforts being made by curriculum middle leaders in their role as a learning area leader and the specific practices they report as being enacted in their leadership role in their curriculum department. Interestingly, a proportion of participants (25%) made no comment and provided no further description of their leadership practices. However, comments from the remaining participants show 24% of all responses were positive about the importance of collaboration. The results in Table 3 reveal that middle leader practices include advocacy for collaboration that has developed in their department, fair use of resourcing, the opportunities for distributed leadership, autonomy and therefore agency, and the importance of ensuring the professional development and mentoring of teachers.

Table 3

Qualitative Responses Describing Middle Leadership Practices that Encourage Agency and Resilience

Themed responses: Middle leaders	Example comment	% middle leader responses (n=60)
Support interdepartmental collaboration, e.g., shared units of work, distribution of responsibility	The development of our shared units of work have led to improved collaboration and trust amongst my team. (Science middle leader)	24%
Develop teaching practices, e.g., professional learning and development (PLD), classroom observations	Encouraging engagement in PLD and feeding back to the team. (Health & PE middle leader)	11%
Encourage teacher agency	I encourage members of the department to "own" their programmes. (Technology middle leader)	5%
Mentor teachers with instructional support and advice	Head of Faculty and the other co-Assistant Head of Faculty are always available to field questions and share advice. (English middle leader)	8%
Provide adequate workspaces and resourcing	We are fortunate to have a workspace (in our faculty) that allows for active and open collaboration and communication. (Technology middle leader)	8%

Themed responses: Middle leaders	Example comment	% middle leader responses (n=60)
Distribute resources fairly	I manage the ordering and resourcing of the department, ensuring the budget is used fairly across all the fields. (Visual art middle leader)	5%
Encourage the development of connections with other school departments, community, and whānau (family)	Designing learning plans to enhance practices. Connect to outside agencies and cultural centres. (Head of unspecified learning area)	15%
No comment / left blank		25%

In the qualitative comments sections, middle leader participants described the adaptive leadership practices that they understood build agency and resilience within teachers in their department. For example, one middle leader wrote:

I have had a lot of opportunities in building trust with staff in my department and providing support. I feel that this aspect of the role has been, and continues to be, very significant. It has involved many meetings with individuals to identify support needed and then provide it in the form of for example extra classroom observation and feedback. (Visual arts middle leader, Regional girls school)

Some curriculum middle leaders expressed their frustration regarding their desire for more collaborative opportunities:

I struggle to have time to share our teaching and learning opportunities. Everyone is so busy. In department meetings once every 3 to 4 weeks we have too many other tasks to complete [such as] reporting to senior management. (Mathematics middle leader, Regional girls school)

Curriculum middle leaders also commented on the stress they felt through their department being under resourced:

I do feel that there is a limit to my ability to allocate resources to support learning. There are financial restraints that prevent a lot of resource allocation I think would benefit staff and students. (Social sciences middle leader, City co-ed school)

The results shown in Table 4 are themed to reveal the additional support curriculum middle leaders identified as being required to further develop their own agentic practices and those of the teachers within their department.

Table 4

Curriculum Middle Leaders Identify the Support Required to Enhance Their Leadership Capacity

Suggestions for support	Example comment	% Middle leader responses (n=60)
More opportunity for Professional Learning and Development	Having PLD that focuses on improving leadership. (Health & PE middle leader)	16%
Mentor support for new leaders	Mentors for new leaders. It shouldn't be assumed that an experienced teacher is automatically a good leader for staff. (Technology middle leader)	12%
More resourcing (especially time)	More time to do the role and more money to make it feel valued and worthwhile. (Arts middle leader)	20%
More support from the Senior Leadership Team (SLT) e.g., collaborative decision making	More connection with the Senior Leadership Team of the school. (Head of unspecified learning area)	13%
More collaboration with curriculum middle leaders from other schools	Get together with other Heads of Department from other schools in learning areas to look at the challenges and how different schools are dealing with issues or changes. (Maths middle leader)	4%
Better support from the Ministry of Education	If the government is going to make changes, prepare well, don't just make it up as they go. (Maths middle leader)	3%
No comment / left blank		32%

Curriculum middle leaders were asked to provide their suggestions for support that could enhance their capacity as a middle leader. A fifth of all responses related to the need for more resourcing, especially time, which is illustrated in this quote:

There is not enough time given to us through the school's PLD programme for our department to truly implement our own professional development specific to our learning area. There is a lot of rich knowledge within our department, but there is not enough time given for us to be able to truly share this knowledge. Interpreting data is so important,

however, once again no time to work together on this. (English middle leader, City co-ed school)

Furthermore, 16% of responses related to the need for more professional learning and development, while 12% of responses indicated that having a mentor to support curriculum middle leaders in their role would be useful. Additionally, 13% of middle leader responses indicated they would like to collaborate constructively with the senior leadership team in their school. Despite the positive reporting of agentic leadership practices summarised in Table 2, the qualitative results and comments analysed in Tables 3 and 4 indicate the tensions of the role of the curriculum middle leaders and the clear identification of the additional support they require.

Discussion

Human agency is characterised by intentionality and forethought, self-regulation, and the ability to reflect on one's capabilities (Bandura, 2001), and the enactment of that agency by curriculum middle leaders is evident in the practices described in this study. The world of middle leaders can be seen as part of the dispersed or distributed leadership within a secondary school, and the responses of the leaders who participated in this study reveal they are also in a position where they can distribute leadership (Grootenboer, 2018). Given their proximity to the classroom, these data provide unique examples of their middle leadership that is focused on teaching and learning and relationship building practices that support the management of innovation fatigue (Grootenboer, 2018). The following themes have been developed from the data analysis of this study and build on the current literature in middle leadership, agency, and the practices required to support teacher resilience in times of crisis and change.

The Importance of Effective Communication as an Adaptive Practice of Curriculum Middle Leaders

Effective communication is paramount in supporting functioning and effective teams (Grissom & Condon, 2021) and yet there is little existing research on the deliberate communication of middle leaders likely to support and develop their own and others' ability to collaborate. This study contributes to the literature because there is evidence that curriculum middle leaders explained how they ensure that information is disseminated clearly, transparently, and in a timely manner to all stakeholders, particularly the teaching team within the department. The quantitative results provide clear evidence of curriculum middle leaders using their agency in building trusting relationships with staff (98%) and between staff (97%) in the departments they lead. Trust has been found to play a major role in social integration for intragroup communication by supporting dialogue, helping to reduce cynicism, and promoting receptiveness (Coleman, 2012). Trust also plays an essential role in promoting change, which in times of stress and crisis is often a central factor in causing doubt and scepticism (Archer & Cameron, 2013; Bryk & Schneider, 2002). This study adds to the existing leadership research to demonstrate that curriculum middle leaders who build trust through listening are able to sustain safe spaces for communication, collaboration, and democratic dialogue within the teaching team (Grootenboer

at al., 2020). These practices will often support teacher ownership of change and they are therefore able to manage the perceived level of threat (Coleman, 2012). This may involve utilising multiple communication channels, which is also critical in disseminating school policy, communicating with the senior leadership team, and managing conflict.

Curriculum Middle Leaders' Demonstration of Agency by Encouraging Collaboration and Building Trust

Participants provided very strong positive responses to the quantitative aspect of the relationship-building dimensions in the questionnaire. A large proportion of the respondents (95%) indicated they believed it is their role as a middle leader to build a collaborative culture amongst the team, and nearly all the respondents (98%) agreed or strongly agreed that building trusting relationships amongst staff was an important aspect of their role as a leader. These results support and build on the existing middle leadership research of Leithwood (2016), Harris et al. (2019), and Day et al. (2020), however the positive results regarding middle leaders' positive and clear articulation of the importance of relational trust at department level provides further evidence in the field. Coleman (2012) argued that trust is important in supporting positive and deepening relationships between leaders and their teams, thereby facilitating effective communication and collaboration which is more likely to support improved instructional performance to improve learning and productivity. This is encouraging because collaborative teamwork across the teaching team within a department is essential for curriculum middle leaders to effectively address complex challenges during times of crisis and change (Lipscombe et al., 2023). This type of resilient behaviour requires curriculum middle leaders to optimise processes, reshape relationships, recover quickly, and negotiate and predict counter-trends (Shah et al., 2020), often multiple times within the working week (Yuan & Huang, 2021). By working closely with other school leaders and teachers, curriculum middle leaders can leverage diverse perspectives, expertise, and resources to develop comprehensive strategies and solutions that meet the evolving needs of the student school community.

Middle Leaders' Adaptive Practice to Mitigate the Negative Effects of Limited Resourcing

Despite being very positive about their capacity to build relationships of trust and support desired practices, curriculum middle leaders who participated in this study were less certain about their ability to allocate resources to support learning. A level of neutral or negative response to this item was evident in the quantitative results (17%), but it was more clearly explained in the themed qualitative comments, where curriculum middle leaders expressed their concerns regarding the financial under-resourcing of their departments. They also expressed that they did not have enough experienced teachers and that there was not enough time to work collaboratively in ways they knew would be beneficial. A recent study by Shelton et al. (2022) found that a leader's ability to utilise time and resources in a way that is perceived to be fair is a critical skill for maintaining constructive positive leadership behaviours. Fair and transparent allocation of resources in a department supports the development of trust and resilience within

the team during times of stress. Principals in New Zealand schools have considerable discretion in the way they allocate, postpone, or decline resources within the school, and they make all final decisions about who is employed or which staff are rewarded (Robinson & Gray, 2019). This leaves curriculum middle leaders with goals and aspirations to fulfil student outcomes with a budget and teaching staff they are provided with or have inherited which could leave them in a compromised position. A review of middle leadership practices conducted by Leithwood (2016) offered insights into conditions that support effective practices, and these include the provision of adequate time for middle leaders to carry out their role effectively, their ability to make decisions *with* the principal, and a role description that is not overwhelmingly administrative (Leithwood, 2016). The findings reported in this article support an earlier New Zealand study of secondary school middle leaders, which found that these leaders faced challenges due to the large volume of duties and responsibilities required which were delegated to them by the principal (Bassett, 2016). Although in this article we argue that middle leaders are crucial in the complex relational endeavour of their role (Grootenboer, 2018), they also operate within a school culture of line management and a hierarchical administration framework within which they may have little control or input.

Curriculum Middle Leaders Advocating for Professional Development and Mentoring

Curriculum middle leaders who participated in this study clearly expressed the types of professional learning opportunities required for themselves and the teachers in their department. Zadok and Benoliel (2023) argued that middle leaders who show consideration and interest in teachers' long-term development will gain benefits from their commitment to collaboration as it builds organisational resilience within and across a department team. Stone and Stone (2024) suggest the need to question and understand how middle leaders are making sense of their role in teachers' professional development. They argue that without such knowledge, the backdrop for professional development for teachers is likely to be inconsistent, potentially impoverished, and revolving solely around pupil attainment. The participants in this study strongly suggested there was a need for further development of collaborative relationships with teachers and leaders in other schools, the senior leadership team in their own school, and even the government agency, The Ministry of Education. This finding emphasises the complexity and unpredictability inherent in teacher development and the importance of teachers working together with colleagues in various hierarchical positions to establish individual and collective teacher agency (Stone & Stone, 2024). Leadership behaviours that foster intellectual stimulation positively impact team members by enhancing optimism, enthusiasm, and commitment (Sanchez-Cardrona et al., 2018), so the notion of professional development being challenging in nature and collegial in design would seem to be an important feature of building effective instructional curriculum teams. Lipscombe et al. (2020) argued that middle leaders' lack of their own professional development in terms of developing their social and emotional capabilities has left them vulnerable in terms of how to manage the challenges implicit in middle leading and 20% of the respondents in the study reported in this article would seem to agree. Similarly, Cardno and Bassett (2015) concluded that middle leadership professional development needs to be prioritised, as many appointed into the

role report being inadequately trained and supported to effectively carry out the leadership requirements.

Limitations

The data reported in this study reflect curriculum middle leaders' unsubstantiated self-reported practices; therefore, the data used in this analysis are not verified or compared to the responses of teachers employed in the schools. Our recently published study (based on the same set of data) suggested that curriculum middle leaders were more likely to rate themselves more positively than the teachers rated them (Highfield et al., 2024); however the high self-ratings reported here are countered by the qualitative responses provided by participants, where they described the difficult reality of their leadership context, including having inadequate time, resources, or expertise to deal with the ongoing demands of the role. Nevertheless, the data reveals curriculum middle leaders intentionally used various forms of agency. These included their own direct personal agency, their proxy agency (i.e., their influence on the teachers they led who were acting on their behest to improve student outcomes within their department), and the collective agency exercised through coordinating and organising the resources and communication strategies required to enhance collaborative effort (Bandura, 2001). Further research both in the New Zealand context and other jurisdictions which directly investigates the mitigations employed by curriculum middle leaders to manage the leadership demands would be worthwhile given the ongoing impacts of the social environmental and economic impact of government policy decisions on students and schools. Middle leaders possess the capacity to develop the agency of others and drive transformative change, making them pivotal advocates in dismantling rigid hierarchies (Stone & Stone, 2024) and fostering a high trust environment that recognises and promotes teacher resilience within secondary schools.

Conclusion and Recommendations

Despite this research being completed within a New Zealand context, the results of this study are transferable to international contexts with similar secondary school leadership structures. There has been an ongoing and constant call for more support for middle leaders within the education system internationally including Australia (Lipscombe et al., 2020) and New Zealand (Cardno & Bassett, 2015); yet the current policy settings suggest less professional support and more requirement to lead through complexity in New Zealand secondary schools. The skills or practices required for curriculum leadership in a secondary school when there are change initiatives are not wholly distinct from the skills successful school leadership demands more broadly; which suggests leaders need preparation and training to adapt those skills within a specific change context (Grissom & Condon, 2021). Curriculum middle leaders also need to connect those skills to the collaborative and relational structures they put in place to help them lead within their department; combining theoretical knowledge with practical application for effective implementation (Ahmad at al., 2024). We argue that a combination of leadership practices should inform future professional development for middle leaders who are inevitably

involved in the management and navigation of complex and challenging environments (Stone & Stone, 2024) .

Professional development for teachers who aspire to leadership needs to be instituted prior to middle leader promotion, and it should continue while these individuals are in post (Highfield & Woods, 2023). This would enable curriculum middle leaders to understand the specific practices that will support the enactment of their agency through collaboration with their colleagues in similar or more senior roles. Developing a sense of organisational capacities and relational dynamics allows adaptive middle leaders to ensure their team members are agentic and prepared for change initiatives (Grissom & Condon, 2021), or as Edwards-Groves et al. (2019) explain, middle leaders play a pivotal role as insider practitioners in developing teachers who report to them. Therefore the opportunity for curriculum middle leaders to form professional relationships in order to develop their own and others' resilience would support their ability to manage change initiatives in an ongoing dynamic workplace environment. Professional development opportunities for leaders to engage in deliberate instruction that builds their cognitive understanding of the practices that will build and develop resilient teams is an essential part of leadership development, while being crucial to the success of organisations (Ahmad et al., 2024). Soykan et al. (2019) found that hope, resilience, optimism, and self-efficacy positively impacted teachers in their ability to develop strategies to manage stress and Kangas-Dick and O'Shaughnessy (2020) described organisational resilience as a collective property that arises from the interaction of individuals and their environment, such as a subject department within a secondary school. The constantly changing education landscape both within New Zealand and internationally underscores the importance of recognising the increasing demands on middle leaders (Harris & Jones, 2017), how they enact their leadership practice effectively within their own jurisdiction, or in the case of New Zealand, the diverse ever-evolving secondary school context.

Competing Interests and Funding

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The Good, the Bad, and the Ugly of University Rankings

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Over two decades ago I asked Robert Morse the longtime chief data strategist for U.S. News and World Report's annual *Best Colleges Rankings* why do you rank colleges and universities based on their ability to spend the most amount of money on the fewest amount of people? His response was that "his readers love inefficiencies when they are spent on their own children and dislike inefficiencies when they are spent on other people's children". This statement highlights one of the many problems associated with university rankings worldwide, not to mention that many of these rankings also reward universities for turning away as many students as possible instead of educating as many as possible. The global university rankings began decades ago in 2003 with the first edition of the Academic Ranking of World Universities (ARWU) by Shanghai Jiao Tong University. Since then they have become omnipresent and presumed important by many governing board members, university administrators, policy-makers, journalists, alumni, and highly affluent parents. Today over 40 countries have created national university rankings systems and they are gaining substantial traction in the academic marketplace and involve thousands of universities on six different continents (Altbach, 2012, Hazelkorn, 2009). The university ranking systems that get the most press coverage and currently have the most influence are *Quacquarelli Symmonds (QS)*, *Times Higher Education (THE)*, *Shanghai Ranking Consultancy* and *U.S. News and World Report* (Fonn, 2024).

The Bad News

These organisations conducting the rankings are primarily private for-profit companies and generate revenues by analysing university data, running conferences, and selling advertisements and consultancy to many of the highly ranked internationally universities. A primary impetus that has led to the growth of these private university ranking systems over the previous decades is attributable to our colleges and universities and a widespread lack of consumer information in the academic marketplace. Widespread market failure occurs when there is imperfect and insufficient information in a free market. For decades colleges and universities did little to define the actual outputs resulting from a college education and the rationale for continuous cost and tuition and fee growth. Many universities from the 1970s

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through the mid-1990s operated under a simple philosophy, "trust us we are worth it". The Integrated Postsecondary Data System (IPEDS) was not even developed until the early 1990s by the Department of Education and has been used by many of the university ranking companies. This gave unrestrained leverage to many private companies like U.S. News and World Report and others to gather as much consumer-based data to conduct their own college and university assessments. The major problem was that these data have been based primarily on input-related data like spending per student, spending per faculty member, the percentage of alumni/donor giving as a measure of educational satisfaction, selectivity of applicants, and previous institutional reputation. As Robert Samuels in a discussion about U.S. News and World Report's rankings stated: "The universities are not ranked on what they actually do once the students get to them; instead, they are rated on who attends the school and how many people are excluded from attending". He further stated that "even the universities that reject the vast majority of interested students spend lavishly on trying to attract more students so they can reject more students" (Samuels, 2013, pp. 4-5).

In response to the increasing influence of *U.S. News and World Report*, the Department of Education created in 2015 the *College Scorecard* as a means of getting more outcomes-based information like starting salaries, actual costs, and student loan indebtedness in the hands of students, families, and college counsellors so consumers can make better college and university decisions regarding rate of return investments during and after their collegiate careers.

Additionally, rankings like *U.S. News and World Report* have done more to damage the overall missions of public universities by incentivising their leadership and governing boards to become more selective, focusing more on out-of-state students while enrolling fewer academically challenged students, and seeking a more prestigious academic model (Anderson & Douglas-Gabriel, 2016). In a number of cases, public university governing board members have used their *U.S. News and World Report* university ranking in annual performance reviews of presidents and chancellors as I experienced at Louisiana State University (Yeung et al., 2019).

The Ugly News

Evidence indicates that the propensity to use university rankings does not treat all universities equally. Institutionally, research shows that for the successful universities that recurrently rank favourably, lower-income accessibility becomes more limited due to the fact that rankings drive up student tuition and fees, and thereby, create greater inequalities by keeping lower-income students from applying to more prestigious and elite universities (Chu, 2021). Also, with regard to research, rankings have a propensity to lead to a "monopolisation" of research funding creating a system where fewer universities command and share the majority of research funding (Munch, 2014). Further research shows that the assumption of institutional neutrality with rankings and the constant pursuit of achieving "world-class status" accelerates inequalities specifically due to the enhancement of prestige resulting in tuition and fee escalation (Wermund, 2017).

Another major criticism of these rankings is in the absence of global and regional standards of data definition and collection, institutions are able to "game" the system and manipulate data for opportunistic advantages and more national and global prestige. This has

been a problem for many years involving numerous ranking systems especially in the U.S. (Bruni, 2015).

The Good News

The evolution of some of these university ranking systems has seen some recent positive developments that measure the impact that universities are having on significant social, environmental, and economic challenges. The first example is the *Social Mobility Index (SMI*) ranking by CollegeNET (2024) in the U.S. which "measures the extent to which a college or university educates more economically disadvantaged students at lower tuition and graduates them into good paying careers" (para. 6). The goal of SMI is to reverse the destabilising trend towards growing economic immobility and advancing the public interest.

A second university ranking with the potential to have significant societal impact is produced by *Times Higher Education (THE*) and is the *University Impact Rankings*. This ranking currently has over 2,200 universities from six continents submitting data in 17 categories that are based on the United Nations Sustainable Development Goals (SDGs). This ranking showcases a university's commitment to addressing the world's most pressing challenges, including environmental sustainability, social inclusion, economic growth, and academic, governmental, and private organisational partnerships. As stated by THE (2024, n.p.), this ranking "underscores the importance of holistic approaches to global challenges and highlights the critical role of [higher education institutions and] academia in driving sustainable [advancements and] change".

With over 40 countries conducting their own university rankings systems and thousands of universities engaged and submitting data annually to THE, QS, and other international rankings, the university rankings systems seem to be flourishing. They are being used to attract students and talented researchers, assess research productivity, and review institutional strategies. Unfortunately, however, they have led many universities to over invest and focus on metrics that might boost their rankings score (Holmes, 2024). As mentioned earlier, they also have played a role in changing institutional missions seeking more elitist and prestigious strategies to become listed among the world's upper tier universities. This has come with a price impacting access, increasing inequalities, decreasing social mobility, and greater monopolisation of research funding.

When viewed in a larger context, these rankings can actually be used to advance society and to address society's biggest environmental and socioeconomic challenges as evidenced in the *Social Mobility Index* and *THE University Impact Rankings*. Rankings focused on the pursuit of individual university prestige and status do very little in recognising how university research, teaching, and service are being used for the betterment of the world's citizens and the global sustainability.

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Comprehensive History of ACEL

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https://www.acel.org.au/ACELWEB/About/Comprehensive_History_of_ACEL.aspx

How It All Started: The History of ACEL

In the literature of professionalism, there is general agreement that the establishment of a professional association represents an important early step in the evolution of an occupation into a full profession. The founding of the Australian Council for Educational Administration in 1973 is linked to this concept of an "emerging" profession. By the 1950's the study of educational administration as a discipline, still in its infancy in Australia, was already well established in the USA. Goldhammer recalled the excitement of those early years: "It was great to be an administrator and scholar of educational administration in the decade of the 1950's, but to be young and have a part in the rebuilding of a professional orientation was heaven".

The field was permeated with a new enthusiasm and hope that out of the new research and analysis would come the true foundation for a sound professional approach to educational administration. The efforts of these "administrators and scholars" had led to the formation of the University Council for Educational Administration (UCEA), an organisation representing major universities in the United States and Canada, established with the aim of advancing research and development in educational administration.

In the mid 1960's, an enthusiastic Australian, William Walker, was a Visiting Professor at the University of California at Berkley. He was asked to organise a conference for educational administrators "in his spare time", with a grant from the Kellogg Foundation. This 1966 conference became known as the First International Intervisitation Program – participants held a residential seminar in Michigan during week 1, visited U.S. universities in weeks 2 and 3, before assembling in Alberta to report their findings. Enthusiasm ran high. A Second International Intervisitation Program was held in Australia in 1970, at the University of New England in Armidale. Already Walker had observed:

> Educational administrators had virtually no tradition of working together or of a professional association; unlike doctors and psychiatrists, they had not formed any such significant professional group.

Walker's vision for a Commonwealth-wide association for educational administrators had begun to set root. By the time the IIP delegates had completed their orientation session in Sydney, dispersed throughout Australian universities for 2 weeks, and reassembled at the University of New England, Walker was ready to propose the establishment of the Commonwealth Council for Educational Administration.

One observer noted:

> In the initial discussions it was evident that there were misgivings as to the viability of such an organisation. The clouds of doubt were dispelled by a masterly exposition from

Bill Walker. I can recall most vividly the feeling of excitement, exhilaration and exuberance when the roll was called of representatives of 14 Commonwealth countries and it was resolved that a (British) Commonwealth Council for Educational Administration should be established.

An offer to house the CCEA Secretariat at the University of Calgary in Canada was rejected when the University of New England, offered its support. Bill Walker became the first President, and Ross Thomas was elected Secretary. In June 1971, the Commonwealth Foundation in the United Kingdom agreed to support the establishment of CCEA financially. Walker commented: "Thus was the infant equipped for the first time with real teeth!"

The CCEA Executive in Armidale then commenced one of its primary tasks – encouraging the establishment of national, regional and local professional bodies in educational administration.

Walker recalled:

The first thing we did was to use the Old Girls and Old Boys network. The people who had done the Ed. Admin course, or people we knew from other contacts – quite often a Director or a Director-General – we wrote to them and said: "Look we'd like to have a meeting in Melbourne or Sydney or Brisbane or wherever. I'll come along with Ross Thomas. Can we get together and look at the desirability of establishing an institute?"

From 1972, groups began to form in capital cities and provincial centres around Australia.

1973: ACEA is founded

In 1973, ACEA become only the second national body to be established under the auspices of the then (British) Commonwealth Council for Educational Administration (the first being the British Educational Administration Society.) Walker observed:

This provides an interesting contrast with other professional groups, whose national bodies are usually in existence before any international organisation is set up.

Representatives from each state or regional association in Australia, already members of CCEA, were invited by the CCEA Executive to attend a meeting in Canberra in November 1972, where general support for the formation of a national council was expressed. These representatives assembled again in Sydney for 2 days in May 1973 to found the Australian Council for Educational Administration.

The question of how ACEA would differ from the Australian College of Education became a major point of discussion among participants on Day 1. The majority were of the opinion that the proposed new body would allow for a broader membership than the College and would also provide a concentration on educational administration which was not evident in the ACE.

On Day 2, 18 May 1973, delegates resolved unanimously that a national body of educational administrators be established. Constituent groups were Queensland, Sydney, Victoria, South Australia, Western Australia, the ACT, Riverina and Darling Downs. Harry Harris (Sydney) was elected Foundation President and Bob Pearson (Queensland) Vice-

President. Among those who attended the inaugural meeting of the new ACEA Board, which met in Canberra on 19 November 1973, was the driving force behind ACEA'S establishment, Bill Walker. He later recalled that he came away from that meeting, humming to himself... "The country's in the best hands".

2002 A New Chapter Begins: The Name Change to ACEL

For several years, the Board of Directors discussed the possibility of a change of name for the Council to better reflect modern conceptions of the nature of educational administration. As scholarly thinking of the nature and distribution of leadership in organisations developed, it was felt that the inclusion of the term leaders in the name of the Council more accurately reflected the current and future aims of the organisation.

In 2002, the Board of Directors recommended that the name of the organisation be changed to Australian Council for Educational Leaders. This was passed at the 2002 Annual General Meeting of the Council.

2008: ACEL Begins a New Chapter

In 2008 the members of ACEL approved the transition from an incorporated association to a Company Limited by Guarantee. The Australian Council for Educational Leaders Ltd came into being on the 11th August, 2008. This governance change has enabled ACEL to take its place both nationally and globally in offering strategic direction and professional learning programs for those committed to improving outcomes for schools and their students.

A Statement of Commitment to the Profession of Teaching was developed by the Queensland Executive of the Australian Council for Educational Leaders (ACEL).
https://media.acel.org.au/Branch/QLD/Statement%20of%20Commitment%20[v.3].pdf

A STATEMENT OF COMMITMENT TO THE PROFESSION OF TEACHING

I acknowledge that I am a member of a profession that extends to me the opportunity and the privilege to make a positive difference in the lives of young people.

I bring to the profession my unique talents to teach and to lead, which I commit to nurturing and developing throughout my career.

I understand that teaching is a deeply human endeavour. While I teach subjects, ideas and skills, above all I teach young people, who are our future.

I recognise and respect the body of distinct theory and knowledge which is gifted to me by those who have come before. I draw from it and strive to contribute further to it.

I recognise that young people learn in different ways and at different rates. I believe that given appropriate support and resourcing, all young people can learn, and I strive to nurture a love of learning that will help every young person to succeed.

I make judgements to evaluate student achievement through assessment that is valid, reliable and fair, and I give value to those learnings that cannot be measured.

I recognise that teaching is a collaborative profession and I am not the only teacher in a young person's life. My work is enriched through working with my colleagues, learning from them and contributing to their practice.

I acknowledge the contribution of the many parents, caregivers, and teachers past, present and future who contribute to a young person's education. I work with them wherever possible to enrich the learning of young people.

I offer a spirit of optimism, resilience and hope as I support young people to develop and act on the values, beliefs and capabilities that guide them throughout their lives.

I recognise the changing nature of knowledge, and I commit to continuous learning throughout my professional career.

In committing to this statement I accept the responsibilities of being a teacher, and acknowledge the deep trust placed in me by young people, parents, caregivers and society.

The consultation, development and production of the statement were facilitated by the Australian Council for Educational Leaders (Queensland), April 2017

Context of the Statement

What is the Statement of Commitment?

The statement is a voluntary declaration of commitment to a set of values and beliefs for the teaching profession in Australia.

Why was the Statement of Commitment developed?

In 2015 the Queensland Executive of the Australian Council for Educational Leaders (ACEL) researched the criteria of established professions, with a view to ascertaining whether there exists a common set of criteria that comprise a profession. It was agreed that teaching clearly meets all but one of the criteria evident in the research. What is missing is a deep statement of ethically based values and beliefs that complements existing legislative and regulatory instruments.

The Executive resolved to lead the development of a professional statement that captures the spirit of the former Charter for the Australian Teaching Profession (Teaching Australia) and that of similar documents from other professions, and which speaks to all teachers.

Who has contributed to the development of the Statement?

The development of the statement was made possible through consultation with, and invaluable contributions from the following professional groups and their representatives:

Association of Special Education Administrators Queensland, Australian College of Educators, Early Childhood Teachers' Association, Independent Schools Parents' Network, Independent Schools Queensland, Isolated Children's Parents' Association, Joint Council of Queensland Teachers' Associations, Parents and Citizens Queensland, Queensland Association of State School Principals, Queensland Catholic Education Commission, Queensland College of Teachers, Queensland Department of Education and Training, Queensland Independent Education Union, Queensland Secondary Principals' Association, Queensland Teachers' Union, Queensland University of Technology, University of Queensland, University of Southern Queensland, and University of the Sunshine Coast.

How might the Statement of Commitment be used?

It is hoped that the statement will inspire and engage teachers to take pride in being members of the teaching profession. The statement can be used formally or informally, at graduation ceremonies, induction ceremonies, celebrations of transitional moments in the careers of early childhood, primary and secondary teachers, or for recommitment to the profession for long-serving teachers. It can be used by teacher educators in their work with pre-service students, at the beginning and end of their courses. When using the statement, systems, schools, universities and professional associations may wish to brand the statement with their own identification.

Leading & Managing

Journal of the Australian Council for Educational Leaders

Preparation of Manuscripts

Note 1: This Journal uses APA7 style and referencing, UK English.

Note 2: All submissions are completed on the Journal Website: https://journals.flvc.org/leading-and-managing

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Text: new times roman, 12pts and double time spacing.

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Acknowledgements

An Acknowledgment section may be included to acknowledge, for example, people who have assisted with aspects of the work (but who do not qualify as authors), disclaimers, collaborations, etc.

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