



## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

Stella Howden, Marie Beresford-Dey and Linda Martindale

University of Dundee

### ABSTRACT

This analysis provides a reflective account of leadership by two associate deans in a higher education institution (HEI) during the first wave of Covid-19. It could be argued that adaptable academic leadership has never been more critical than during the global pandemic when major transformations were needed, not just in how higher education (HE) is delivered, but in how staff work and interact. Literature associated with change identifies the significance of context and leadership. Understanding supportive leadership practices that enabled successful change during this time has the potential to influence future leadership. It will also inform ambitions to innovate and enhance remote and blended learning.

The transition to remote and blended learning through the pandemic continues to be important and complex work, aiming to support positive student experiences and learning. Using Complexity Leadership Theory (CLT) (Uhl-Bien & Arena, 2017) as a reflective tool, this analysis considers this transition. CLT allows for exploration within a richly interconnected system that requires continual and flexible changes and adaptations, such as an HE institution. CLT proposes that innovative responses emerge from the tensions between entrepreneurial thinking and operational practice within an enabling environment.

The authors draw from a series of reflective artefacts to deepen understanding of how their academic leadership practices adapted during the time of a major system shock. These artefacts informed the analysis and included recorded conversations between the authors (March – November 2020), focusing on the experiences and sense-making of leadership and changes in learning and teaching in one HEI. More specifically, the contribution of CLT is explored, proposing the value of this lens in illuminating not just what happened but also how leaders enacted change. The findings offer new perspectives on enabling innovation, leadership, and the implications beyond this crisis.

**Keywords:** Complexity Leadership Theory, Covid-19, blended learning, academic leadership, higher education

### Introduction

The Covid-19 pandemic has presented the world with a major health crisis of unrivalled speed and scale, resulting in loss of lives, weakened economies, and scenes that belong in movies becoming reality. Zhang, Jia, and Gu's (2012, p. 4087) 'three features' of a crisis, "the chaos, the urgency, and the shocks on psychology", has occurred on a global level. Around the world, loss in one form or another has been experienced regardless of status or background, and it remains unclear how the world will emerge or what the 'new normal' will be.

As lockdown approached in the United Kingdom (UK) in March 2020, many Higher Education Institutions (HEIs) were faced with the challenge of pivoting to remote learning at pace, as students and staff were required to stay at home, exiting classrooms, laboratories and placement sites. Foremost in the minds of education providers was how to continue to support student achievement and maintain standards (QAA, 2020a). As the months progressed, attention moved to developing blended learning for the academic year 2020/21, supporting learners with a combination of onsite and online learning (QAA, 2020b), and accommodating for the limits of onsite teaching associated with health and safety measures.

Many students and staff have faced hardship, losing established ways of connecting with friends, families and colleagues, and all were dealing with new ways of living and learning along with ongoing uncertainty (Schleicher, 2020). The ability of Higher Education (HE) to adapt to online learning has been challenging. Infrastructure and digital literacy, although advancing in many institutions over past years, was variable and in most cases was not equipped to manage the magnitude of the change (Ali, 2020; Nandy, Lodh, & Tang, 2021). Despite this, positives emerged across the sector as necessity has promoted creativity supported by

Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

the strength of community, developing, for example, e-placements (Salmon, 2021) and innovative online assessment (Iosad, Pauli, & Attwell, 2021).

Within HE, the leader’s role is to foster “hope for future goodness” (Maak, Pless, & Wohlgezogen, 2021, p. 67), support change, and nurture the sense of collective spirit within organisational communities. While the world continues to feel the pandemic’s destruction, we must learn from being in the moment, to help us prepare for post-pandemic life alongside the real potential for future pandemics (Nandy et al., 2021).

In this article, we share the reflections of two associate deans (ADs) for learning and teaching (SH, LM) on their leadership experiences as they worked with students and staff in their respective schools to adapt established and well-understood ways of thinking and practising to move to remote and blended learning. Between March – November 2020, we gathered artefacts in the form of recorded conversations, images and short written reflections. Using Schön (1987) as a guide, we shared ‘in-action’ reflections over this time using the lens of Complexity Leadership Theory to illuminate our leadership practices. ‘On-action’ reflections over time were advanced by the involvement of a third academic (MB), with expertise in academic leadership, to support critical review of the experiences and enactments of leadership over the period.

Context

We work in a medium-sized HEI in the UK with a mixed student population, including sizable international student numbers and students from various socioeconomic backgrounds. In March 2020, following government guidelines, the university closed its campus doors and directed students and staff to ‘stay at home’. Staff moved to home working, which brought challenges, including loss of connectivity, feelings of uncertainty alongside the concern to respond to student needs and support completion of awards and/or successful progression in studies.

Our role as ADs is to develop an environment that supports collaborative working, across the university and with senior leaders, to implement strategy for learning and teaching and to support the student experience. Both ADs work in schools with professional programmes. The leadership functions, in theory, were no different pre-pandemic to pandemic. However, as activity increased and pressures intensified, the momentum for change was non-negotiable. LM and SH took the opportunity to pause intermittently and critically reflect on the learning and teaching transformations and the associated function of leadership through supported, peer dialogue.

Complexity Leadership Theory

Complexity Leadership Theory (CLT) is a relatively new theory that recognises the inherent complexity of modern organisations, which must continually adapt while operating within intricate internal and external networks known as complex adaptive systems (CAS). Interconnectivity lies at the heart of CLT, which in turn, regards leadership as a collective endeavour (Gordon & Cleland, 2021; Uhl-Bien & Arena, 2017; Uhl-Bien, Marion & McKelvey, 2007). Furthermore, CLT is primarily devised of three leadership functions (Table 1). According to Uhl-Bien and Arena (2017, p. 14), “A single individual could potentially engage in any or none [of the functions]... the most agile leaders would have proficiency in all three”.

Table 1 The three functions of Complexity Leadership Theory (Uhl-Bien & Arena, 2017)

Leadership Type	Function
Operational	Leadership balances formal structures and maintains efficiency with the need for innovation. A central component for this function is converting emergent, novel ideas into standard processes within bureaucratic frameworks such as organisational policies alongside obtaining and allocating appropriate resources to implement the innovation. The operational leader should act as a filter rather than a block for innovative action.
Entrepreneurial	Leadership works to generate novelty through ideation and action within cohesive teams alongside working in tandem with the enabling leadership, particularly in relation to brokering diverse connections and networks. Often, constraints placed on the individual or group, and the challenges they face, act as the key to unlocking action for the entrepreneurial leader. However, they recognise that creativity and innovation are typically collective endeavours.
Enabling	Leadership occurs at the interfacing space between operational and entrepreneurial leadership to ensure organisational fitness and viability through enabling and amplifying the adaptive space, liberating, and disseminating collective knowledge, and propagating ideas across diverse networks: a crucial function for organisational success. Complexity thinking is at the core of enabling leadership; in other words, understanding and utilising systemic forces to create, nurture, and energise the adaptive spaces.

We propose that CLT is a valuable framework to use as a reflective tool due to the complex nature of HEIs. Considering HEIs as systems, CLT offers HE leaders a framework to understand the dramatic changes brought about by a systemic shock. HE leaders will

## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

need to navigate the continuing known challenges and the upcoming unknown disruptions while working towards strategic goals. Moreover, CLT is particularly relevant to this situation (i.e. the pivot to online learning due to Covid-19) because of the multiple, interacting system-wide changes that were required and the need for adaptable leadership to navigate a new landscape successfully.

### Approach to reflection

In this analysis we consider critical reflection as a process between two leaders instead of an individual development activity (Gray, 2007), broadly defined as a deliberate and purposeful activity in which professionals engage in order to improve. According to Bolton and Delderfield (2018), “professionals face complex and unpredictable situations; they need complex and diverse reflective and reflexive processes” (p. 2). For many, Covid-19 delivered novel situations. For this reason, we opted for an alternative framework to enable us to make sense of our leadership experiences. Through using CLT and its three leadership strands of operational, entrepreneurial, and enabling, we draw on our experiences in leading throughout the early stages of the pandemic alongside visualising strategic needs as the world emerges from such dramatic systemic perturbations.

Initially, the conversations came about due to the ADs valuing supported peer reflective dialogue. Recognising the need for a safe space to deepen our learning and explore our leadership experiences, we captured thoughts and discussions through various artefacts. The artefacts comprised individual contributions (images), asynchronous interaction through shared messages (chat page), and synchronous interaction (regular conversations). This lasted from March 2020, when we experienced the first lockdown until November 2020 when socialisation restrictions were eased but not removed. Each of these artefacts helped to enrich the others. For example, the photographs illustrated a moment, an expression of ‘where I’m at right now’ messages, which mimicked reflective journal entries, captured an individual’s thoughts, and recorded conversations elicited joint reflection of leadership experiences. Often, we shared a critical incident to provoke the reflective dialogue, along with simple questions: how has the week been, how did you feel, what is (not) working, why, so what, what next? In June 2020, the CLT framework was introduced into the conversations to examine its value in illuminating leadership practices; this was done by exploring our experiences in relation to the three leadership functions (Table 1).

We used Microsoft Teams as a secure space to capture/gather artefacts. While we did not require institutional ethical approval for this reflective piece, deliberate ethical considerations were respected through actions such as maintaining confidentiality, secure electronic storage of the artefacts, and the authors consenting to the use of their own data.

### Reflections on academic leadership

In this section, we use the functions of CLT to organise our reflections. Integrated in the reflections are excerpts of our conversations and images captured by the authors.

#### Operational leadership

Unsurprisingly, throughout the reflection period, the evidence of a wide range of operational leadership activity was dominant as we made daily efforts to manage the transition to online education, as well as different approaches to leadership while following government Covid-19 guidelines and restrictions. These activities broadly fitted into three linked categories: responding to external and internal policy and directives, working with our respective senior school teams to lead the response, and managing communications.

#### *Policy and directives*

During the early months of the pandemic, we received a deluge of policy information and guidelines relating to learning and teaching. This came from the university and external stakeholders, including the government and professional, statutory, and regulatory bodies. There was an urgent need to take this information, interpret and rationalise it and make it fit for consumption by students, staff, and other partners; this was complicated by the regular review of information by the various parties because of the ever-changing needs brought about by the pandemic, and at times this information was confusing. Confusion was evidenced in the artefacts through several discussions surrounding the volume of information coming from diverse sources about the same topics and often over short periods of time; it also arose from the changes in guidance and deadlines that were disseminated to diverse groups by different parties, complicating the work of identifying what the priorities were for our school contexts. Operationally this led to a tendency to control and direct to manage the volume and complexity of information, a managerial rather than leadership approach. In practice the requirement to transition at speed to online teaching led us to use a more top-down approach, guiding teams not just in what to do, but in how to teach; for example, in outlining expectations for synchronous and asynchronous activities. This was successful in keeping programmes on track and enabling students to complete their studies as planned. However, this felt like an unfamiliar ‘overseeing’ of the work of experienced teachers, in a way that could be seen as inconsistent with norms in HE such as academic freedom. This need to organise and control was visualised in some of the images that we shared, showing efforts to tidy and organise workspaces (Figure 1) alongside techniques to capture and make sense of a myriad of actions, deadlines, and communication plans (Figure 2). The directive approach was also manifested through increased

Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

frequency and duration of online meetings, both at university level and with external stakeholders, to assimilate and/or disseminate information in contrast to the pre-Covid-19 approach, which was characterised by fuller discussion and joint decision-making.



Figure 1 Efforts to organise and tidy workspaces when working at home: the work box.

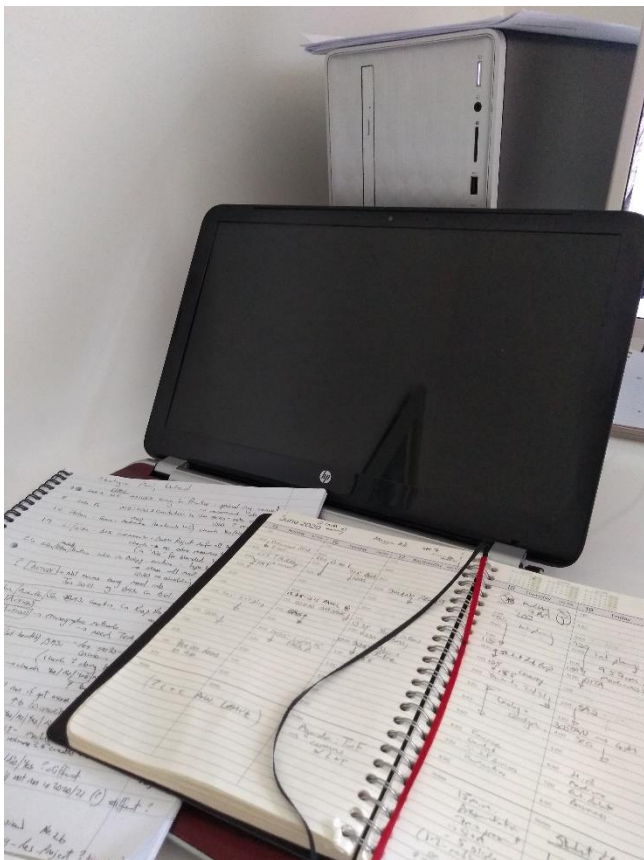


Figure 2 Efforts to capture the many and varied work tasks, activities, and deadlines.



Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

*School-level responses*

During the months of the first Covid-19 wave, the usual fora for strategic leadership also shifted focus to short-term operational planning and managing the scope of the changes needed. As members of our school's senior teams, the 'normal' ways of working emphasised the need for strategic and longer-term planning and leadership. Almost overnight, there was a switch to directive and operational activities that often looked no more than a few weeks ahead. The senior teams became more like a task force, in which the focus was on current learning and teaching. Our reflections emphasised the squeeze on research and scholarship and the need to redress the balance as it tipped towards learning and teaching. We were also carried along with a sudden move towards a much more transactional leadership style characterised by a focus on achieving goals and targets (Aarons, 2006) and, at times, an autocratic approach in which we received instructions, and in turn, passed these on to the relevant teams. As we reflected, we noticed this shift and recognised the necessity of such approaches to make a co-ordinated move to online learning across the institution and within schools to ensure that there was consistency for students at a time of great uncertainty. It was also a way of managing the shifting policy and guidelines that had to be implemented. However, this approach also aimed to provide reassurance for teaching staff, to try to give them an anchor at a time of experiencing uncertainty, both professionally and personally. This move to a transactional and autocratic leadership style was, at an operational level, an effective way to manage the changes, though as leaders it felt awkward and uncomfortable to knowingly opt for more directive leadership approaches.

Further, there were also changes in ways of working with those who usually take full responsibility for the operational leadership associated with learning and teaching, for example, programme leaders. As we shifted into that space, we were pressured to be more involved and transactional in our approaches; this was time-consuming, tiring and at times felt repetitive, yet intense. The image of shoes, shown in Figure 3, captures this feeling well through symbolising the "sameness" of our day-to-day activities; a sameness in and out of work. We also reflected on the impact that this was having on those we work with, recognising the pressure we were putting others under to act, to provide information, and to change. This felt uncomfortable and at odds with our leadership values; namely, authenticity, enabling, coaching, and supporting. Our natural tendency to be inclusive in our leadership, which Shambaugh (2017) identifies as being characterised by awareness of issues relating to inclusion, collaboration, empowerment and trust, felt to be threatened due to the need for direction and quick decision-making. As we move beyond the pandemic into a way of working that is likely to continue to be dominated by digital transformation and innovation in online and blended approaches, it will be important to be aware of ways of leading which balance collective approaches with responsive decision-making. The relatively poor digital infrastructure and literacy with which many entered the pandemic has been documented (Ali, 2020; Nandy et al., 2021) and it seems important to avoid making the same mistakes again.



**Figure 3** An image of similar footwear symbolising the sense of 'sameness' of day-to-day work and non-work activities.

*Changing communications*

In all aspects of our operational leadership functions, there was a strong emphasis on communication, both verbal and written. We took time to reflect on the challenges for leadership when switching quickly to online communications due to the closure of the physical University campus. The frequent online meetings were tiring and often generated more work than there was time for, but our reflections also touched on the more nuanced aspects of communications, including managing conflict or distress in online

## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

meetings. The ability to use non-verbal communications to comfort a colleague who was upset was no longer available to us, and at times we felt helpless and even inadequate; this was compounded by the need to communicate effectively with different audiences and to be continually agile, day-to-day. The transition required us to interact in different ways. For example, the senior teams we are each part of in our schools had to work together more closely, share roles, and sometimes take on tasks that would usually be delegated to others. This worked because the senior teams already had a history of collaborative and cooperative working, with mutual respect and support. The value of building such resilience in teams was clear, to enable effective responses when unforeseen change occurs. The challenges in communication led to some of the expressions of frustration and finding our situations overwhelming, not knowing what would arise from one day or week to the next, like being in changeable, choppy seas. Much of the transition to online involved keeping activities and communications as simple as was possible to avoid overwhelming others. Being operational and focusing on the here and now was essential, and from some perspectives, relatively straightforward. In sum, our tried and tested approaches to communicating with others were challenged and required adaptation to meet the needs of our teams. The need for a well-organised and executed communication strategy for staff and students, when making significant changes to learning and teaching, was obvious at the point when we finished the recordings in November 2020.

### Enabling leadership

---

The enabling space was linked to our profound learning, evidenced in the reflections by the signs of a learning culture in which we could work on uncertainty and change, challenges, and failure. Through our reflective conversations, we used peer support to enable ourselves and others in similar leadership positions. As a direct result of our shared reflections and learning, we initiated weekly, informal online meetings for the group of ADs responsible for education across the institution. These offered mutual support, a trusted place to share ideas and problem solve, often resulting in suggestions or queries being channelled to a particular school and/or university leadership group. As Covid-19 prompted a 'we're in this together' approach, this helped engender an enabling and learning culture. While as leaders, we found Covid-19 challenging, we were able to move into an enabling space, partly because of the support systems that we had available to us with leaders in similar roles and experiencing similar challenges.

Using our CLT informed reflections to step back and reassess the role of the AD in supporting the transitions of the pandemic, we saw ourselves as a nexus – a link or interconnector. Enabling was enhanced through our position as relational leaders who held a unique set of links to student groups, school colleagues, university learning and teaching leadership and external bodies. Relational leadership (Uhl-Bien, 2006) views leadership as socially constructed, and during this time, we adapted our leadership behaviours, relationships and approaches as the changes of Covid-19 played out. In our discussions, the relational nature of leadership was synonymous with enabling leadership, as we modified how we acted, communicated, and worked with others to facilitate and make education happen. This manifested itself in our availability to others, particularly to provide support for wellbeing. We noticed that as staff increasingly felt the isolation of working at home and did not have the opportunities to mix ad hoc with colleagues, they would look to us for support more than usual. We each used strategies to make sure we were approachable, available and supportive. This was essential to understand what others were experiencing and to identify emerging issues and problems. It took its toll though and the need for leaders to have their own support systems in place, particularly during times of crisis, was self-evident. The impromptu peer support that SH and LM engaged in, that led to this reflection work, was in fact also important for our wellbeing and ability to sustain leading and supporting others. In our reflective conversations, we recognised why we needed to focus on others and to seek to understand their perspectives and priorities rather than our own, which helped to claim back our personal leadership values rather than those we felt we were being pressured into exercising.

As we look back on the conversations and other artefacts, the complexity of our network is evident; the discussions surrounding working with an extensive range of internal and external colleagues – peers, senior colleagues, other academic and professional services staff, and our students – permeate our discussions. There was also a complex network of activities that we each had to manage. During one conversation, SH listed the multiple and diverse activities she had been involved in just in one day (and the day was far from being over); this brought into relief the agility that has become so routine that we were tending to view this as normal. The agility was, at times, associated with feelings of failure and loss. In responding to so many different situations and demands we inevitably expressed some feelings of not being able to do everything in the way we would have liked and feeling that we were, at times, getting things wrong. This linked to our identities as both leaders and educators. As leadership responsibilities took priority, our teaching appeared to suffer, manifesting in feeling underprepared for online teaching sessions or posting late contributions to discussion boards. Of course, this could have partly been related to the move online and reflects feelings of colleagues we spoke to, who did not have formal leadership roles. This appears to capture the sense of the adaptive space being 'squeezed'; feelings of limited time but manifesting the significance of positioning or enabling others to make connections and advance ideas. On reflection, perhaps at a cost of our own enabling space being reduced.

### Entrepreneurial leadership

---

Entrepreneurial activities were evident during this time by transitioning to online delivery, though they were less evident than the operational leadership activities that dominated during the first months of the changes. These manifested themselves in collective actions and personal approaches.

## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

### *Collective entrepreneurial leadership*

During the transition and beyond, we focused on adapting existing tools and techniques for learning and teaching to accommodate the 'next' normal. The forced change to online working and learning led us to think creatively and sometimes to think what only the previous week had been the unthinkable (for example, moving all lectures online within weeks). Drawing similarities with Uhl-Bien and Arena (2017), we found entrepreneurial working overlapped with enabling leadership, as we supported academic staff to make this happen. The conversations reflect the different approaches this required as we encountered staff who embraced the push for creativity and were pushing ahead (the early adopters), while others wanted reassurance and some expressed distress. Our ability to support the innovative efforts of others appeared to be an essential route to collectively provide effective teaching under stress. One example was in the use of breakout rooms for large student groups (250+ students). The experienced educators planned a creative solution and what they required was encouragement, buy-in and support for their ideas. This was mindful of transformational approaches to leadership and reflects the need, even in rapidly changing environments, to work with others to find creative solutions.

### *Personal entrepreneurial leadership*

The entrepreneurial space in the move to online education was both alluring and overwhelming; the opportunities were clear, but creativity was also challenging to take forward, being 'squashed out' by the operational activities and the pace of work. It was also problematic to actualise innovations amid the frequent policy and regulation changes brought about by Covid-19. We recognised the importance of idea generation and innovation, yet the numerous calendar entries and meetings crowded out space for creative thinking. One of us aptly described the tendency to 'retreat into more concrete behaviours during times of stress'. The images and recordings included elements of changes in thinking and practice alongside questions surrounding how to manage change during uncertainty, but they also contained expressions recognising change as being too much and feeling threatening. Despite all of this, the recordings and other artefacts are testimony to an entrepreneurial way of thinking. We almost craved the opportunities to find creative solutions to the challenges being faced and regularly shared solutions that we had each found and were able to apply in our respective schools. At times, the solutions would have been previously unimaginable in our own context: offering students choice in assessment submission dates, moving clinical skills work online, teaching sensitive topics online, or involving research staff in providing pastoral support to students. Moving forward, this experience will encourage us to be more entrepreneurial in our approach and give us confidence in being able to introduce change, quickly but safely and effectively. That said, possibly the most entrepreneurial leadership activity of the period under review was the peer support and co-working that facilitated us to be proactive in finding solutions and having a 'can-do' approach to our educational leadership over that time. This was enhanced by us having a pre-existing working relationship that meant there was already an understanding and trust, as well as having the same leadership roles, albeit in different schools.

## Discussion

### The value of Complexity Leadership Theory as a reflective tool – new perspectives on leadership

CLT offered us a reflective framework that illuminated insights into what was and was not happening and make sense of feelings; it drew out the significance of context, others, and control, also showing loss of control as potentially valuable. There are caveats, of course. While Gordon and Cleland (2021) argue that CLT is novel in medical education, we note a similar novelty pertaining to empirical research in higher education more holistically. Therefore, as a result of this reflective paper, we recognise the need for further work to critique CLT, make relevant adjustments to the framework and highlight its potential. A point to note, and one similar to that made by Uhl-Bien and Arena (2017), was that we too recognised that there was overlap between enabling leadership and entrepreneurial leadership; the times where we were enabling, we were also trying to push forward with creative thinking and innovative action. Additionally, we recognise the conflict in operational leadership duties and enabling leadership, especially during the organisational challenges presented by Covid-19 and the transition to online and blended learning. During that phase new and continuously changing regulations had to be communicated and adhered to, yet we were still trying to bring about that crucial adaptive space for entrepreneurial actions.

Within these reflections, we see that Uhl-Bien and Arena's (2017) notion of a pull to order through organisational processes needs to integrate entrepreneurship into the normalised operational activities. Although activities demonstrate a much-needed control mechanism during a time of crisis from the university's senior teams, it ultimately impacted schools, teams, and individuals implementing these policy changes. We can also determine that rapid change in university-wide practices and the pivot to online learning as innovative; thus, engaging in "formal functions differently" (*ibid.* p.14) to bring about adaptive and novel changes as the core practice. Yet, in doing so, innovation at local levels (i.e. within the schools) beyond the shift in teaching methods, was squeezed. Therefore, the experiences throughout this Covid-19 period perhaps aligned greater with Uhl-Bien et al.'s (2007) notion of 'administrative leadership'; this is signposted as hierarchical and bureaucratic "to accomplish organizationally prescribed outcomes" (p. 305) alongside structuring tasks, building vision, managing crises and personal conflicts (p.306).

Traditional leadership theory, more akin to leadership for the industrial era, tends to focus on attributes that are viewed as necessary for the successful leader, often driven through top-down mechanisms (Uhl-Bien et al., 2007). Using CLT as the framework for reflecting on our educational leadership during the early months of the pandemic has shown the importance of

## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

leadership that combines skills across the entrepreneurial/innovative to operational/task-based spectrum. The necessity to transition people, teaching, learning, assessment, and communications online within weeks required short-term operational action; it also needed solutions that were not necessarily innovative in themselves but were innovative or entrepreneurial in the context in which they were applied. Linking these two was the agility of enabling leadership which manifested itself in our ability to respond to diverse situations and change roles, sometimes from hour to hour.

### Supportive leadership practices

The most important lessons from this reflective process are the supportive leadership practices that we identified that can help to inform future practice, particularly in the context of implementing educational change:

- In times of system shock, with constant and systemic change ongoing, it is important for academic leaders in positions such as that of AD, to be aware that enabling and adaptive leadership can best be fostered when leaders deliberately seek to connect individuals and/or teams and resist doing more and more themselves. This could be through developing networks or supporting others to make time for creative conversations and activity.
- Nurturing trust and supportive environments seem to be a common theme for success when enacting the three different leadership approaches. Leaders should be aware that feeling uncomfortable, as we did, at times of fast-paced change, can also be a scenario where helpful tension can lead to consideration of new ways of thinking and practising, within a climate of mutual trust.
- Academic leadership can and should support the development of leaders who can integrate operational, entrepreneurial, and enabling leadership skills to negotiate the complex systems within HE and to ensure that they embody a culture of innovation and creativity to enhance the student experience. In extreme circumstances, such as we encountered transitioning to online and blended learning, particular notice needs to be given to those who are motivated by the opportunities afforded by the 'pressures' in the system; they can often advance innovations.
- Leaders can benefit from co-constructing reflections to make sense of events and critical incidents to develop their leadership skills and enhance adaptive and supportive team working practices. This has potential for rich learning, identifying how views change over time; thus, supporting an openness to a wider array of potential outcomes in day-to-day leadership practices and to enhance the strategic development of learning and teaching, particularly in the digital space.

We found CLT a particularly helpful vehicle to support purposeful and productive reflection, as well as being a tool to understand our leadership practices. The use of operational, enabling, and entrepreneurial leadership approaches allowed us to focus our reflections in these three areas and analyse the multifactorial interconnectedness between them. This also enhanced a relational approach to leadership, helping us to identify how our leadership was enacted with and through others in a rapidly changing complex system, such as we encountered through the first months of the pandemic. While we recommend this to others as an approach and framework to consider, the overarching message of what we did was the importance of taking time to make sense of leadership practices, to learn from the apparent successes and failures and, above all, to adopt leadership as a journey.

### Conclusion

As we write, the pandemic is ongoing though with some hope of improvement to come. We hope that our reflections offer new perspectives on enabling innovation and leadership, including how the leadership experiences during the pandemic might positively inform future practice. As discussed earlier, CLT could benefit from critique, to develop it further and explore in more depth its usefulness as a tool for reflection and learning. There is also a need to recognise the complexities of HE that Covid-19 has thrown into sharp relief and to reassess innovation in learning and teaching and leadership in learning and teaching in this context. While it may seem trite to say that the pandemic has changed HE irrevocably, it is also something that leaders in HE need to adopt quickly and adapt to, to ensure our future students have the education that they need to prepare them for an uncertain world. The system shock of Covid-19 and the transition to remote and blended learning has shown the potential for rapid innovation and change that can help us, as leaders, to embrace future change.

### Biographies

*Stella Howden* PhD MSc (Ed) SFHEA is a Reader in Medical Education and Associate Dean Learning and Teaching in the School of Medicine, University of Dundee. Her teaching practice focuses on curriculum design and leadership and her research interests include interprofessional education, leadership, and student experience.

*Marie Beresford-Dey*, PhD MEd BSc (hons) is a Lecturer in Leadership in the School of Education and Social Work at the University of Dundee and has extensive experience in online learning and teaching. Marie's research interests surround leadership, innovation, complexity, and education for sustainable development.



## Critical Reflections on Academic Leadership during Covid-19: Using Complexity Leadership Theory to Understand the Transition to Remote and Blended Learning

Linda Martindale PhD MBA MA (hons) is a Reader and Associate Dean Learning and Teaching in the School of Health Sciences, University of Dundee. Linda teaches leadership, change and quality improvement, as well as education theory and practice, and her research focuses on threshold concepts, educational development and academic leadership.

### References

- Aarons, G. A. (2006). Transformational and transactional leadership: Association with attitudes towards evidence-based practice. *Psychiatric Services, 57*(8), 1162-1169. DOI: <https://doi.org/10.1176/ps.2006.57.8.1162>
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies, 10*(3), 16-25. DOI: <https://doi.org/10.5539/hes.v10n3p16>
- Bolton, G., & Delderfield, R. (2018). *Reflective Practice: Writing and Professional Development*. London: Sage Publications.
- Gordon, L., & Cleland, J., A. (2021). Change is never easy: How management theories can help operationalise change in medical education. *Medical Education, 55*(1), 55-64. DOI: <https://doi.org/10.1111/medu.14297>
- Gray, D. E. (2007). Facilitating Management Learning: Developing critical reflection through reflective tools. *Management Learning, 38*(5), 495-517. DOI: <https://doi.org/10.1177/1350507607083204>
- Iosad, A., Pauli, M., & Attwell, S. (2021). *Assessment rebooted: From 2020's quick fixes to future transformation*. London and Bristol: Emerge Education and JISC.
- Maak, T., Pless, N. M., & Wohlgezogen, F. (2021). The fault lines of leadership: lessons from the global Covid-19 crisis. *Journal of Change Management, 21*(1), 66-86. DOI: <https://doi.org/10.1080/14697017.2021.1861724>
- Nandy, M., Lodh, S., & Tang, A. (2021). Lessons from Covid-19 and a resilience model for higher education. *Industry and Higher Education, 35*(1), 3-9. DOI: <https://doi.org/10.1177/0950422220962696>
- QAA. (2020a). *COVID-19: Initial guidance for higher education providers on standards and quality*. Gloucester: The Quality Assurance Agency for Higher Education. Retrieved from: <https://www.qaa.ac.uk/docs/qaa/guidance/covid-19-initial-guidance-for-providers>
- QAA. (2020b). *How UK higher education providers managed the shift to digital delivery during the COVID-19 pandemic*. Gloucester: The Quality Assurance Agency for Higher Education. Retrieved from: <https://www.qaa.ac.uk/docs/qaa/guidance/how-uk-higher-education-providers-managed-the-shift-to-digital-delivery-during-the-covid-19-pandemic.pdf>
- Salmon, G. (2021). Unblocking the placements logjam through e-placements in healthcare. Retrieved from: <https://wonkhe.com/blogs/unblocking-the-placements-logjam-through-e-placements-in-healthcare/>
- Schleicher, A. (2020). *The impact of Covid-19 on education: insights from education at a glance 2020*. Paris: Organization for Economic Cooperation and Development.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco, CA: Jossey-Bass.
- Shambaugh, R. (2017). All voices on deck: How inclusiveness can help define your leadership style. *Leader to Leader, Summer*, 12-17. DOI: <https://doi.org/10.1002/ltl.20300>
- Uhl-Bien, M. (2006). Relational Leadership Theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly, 17*(6), 654-676. DOI: <https://doi.org/10.1016/j.leaqua.2006.10.007>
- Uhl-Bien, M., & Arena, M. (2017). Complexity leadership: Enabling people and organizations for adaptability. *Organizational Dynamics, 46*, 9-20. DOI: <https://doi.org/10.1016/j.orgdyn.2016.12.001>
- Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly, 18*(4), 298-318. DOI: <https://doi.org/10.1016/j.leaqua.2007.04.002>
- Zhang, Z., Jia, M., & Gu, L. (2012). Transformational leadership in crisis situations: evidence from the People's Republic of China. *The International Journal of Human Resource Management, 23*(19), 4085-4109. DOI: <https://doi.org/10.1080/09585192.2011.639027>