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Article abstract

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Examining the Virtual Leadership of Leaders in Higher Education During the COVID-19 Pandemic: A Case Study

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Abstract

During the COVID-19 pandemic, student services leaders needed to adapt to working entirely virtually, find creative solutions to adjust their service delivery, and change how they engaged with their teams. Before COVID-19, studies of virtual leadership focused on virtual teams developed because of the geographical distance between team members. This qualitative study investigated virtual leadership and virtual teams developed because of the move to virtual work during the COVID-19 pandemic. It examined how student services leaders changed their leadership behaviours in response to moving to the virtual work environment. Using data gathered through a questionnaire, interviews, and documentation, four themes reflecting how leaders changed their behaviours and practices were identified: reimagining communication, reconstructing work using technology, reframing team support, and reorienting toward hybrid work. Understanding how these leaders managed their virtual teams at a midsized university in southern Ontario provides insight into what practices might be helpful for teams that continue exclusively virtual work and those that transition to a hybrid work approach.

Keywords: Virtual leadership, COVID-19, higher education, virtual work, virtual teams, communication, hybrid work

Introduction

The COVID-19 pandemic changed the world and with it the landscape of higher education. At the outset of the pandemic, the majority of university work, including instruction and student services, moved online (Bao, 2020; Blankenberger & Williams, 2020; Parnia, 2020). Parnia (2020) highlighted that this change in modality meant that universities needed to rethink their operations to support the virtual delivery of instruction and services. For student services leaders, this change meant that they needed to find creative solutions to adapt their service delivery. Moreover, it altered how they engaged with their teams. Specifically, student services departments that used to work as teams in person were working entirely remotely.

This qualitative study examined how student services leaders changed their leadership behaviours in response to moving to a virtual work environment during the COVID-19 pandemic. This case study aimed to understand the practices used by higher education leaders to manage their virtual teams at a midsized university in southern Ontario during the COVID-19 pandemic and how these practices differ from their pre-pandemic practices. More specifically, this study considered how differences between virtual and in-person teams (e.g., what the team characteristics are, how communication occurs, and how technology is used) affect how a team is led.

For this exploratory case study, the following questions were used as a guide:

1. How did leaders adapt their leadership practices during the COVID-19 pandemic to suit the virtual working environment?
2. How did leaders support their teams in the virtual working environment?
3. How did leaders' communication practices change to suit the virtual working environment?
4. How did leaders leverage technology in the virtual working environment?
5. How might leaders implement new practices they adopted in an in-person or hybrid working environment?

Background

Before the pandemic, virtual teams were usually comprised of employees too far apart geographically to work together in person. Pullan (2016) explained that for this reason, virtual teams of the past were often made up of diverse people from around the world who could not work together in person. Virtual teams created because of work moving remotely at the beginning of the pandemic comprised employees who were close geographically but who worked from home and did not interact in person (Parnia, 2020). Researchers have been studying virtual team leadership for some time, and much of this work could be applied to the new environment in which higher education leaders find themselves. Various teams and departments support student service delivery in higher education. Researchers are trying to understand what changes to leadership practices were made because of this change in modality and surmising how the changes made will continue to shape university work after the pandemic (Gurukkal, 2020). Parnia (2020) emphasized that higher education leaders must adapt to remote and online program delivery. Rehm et al. (2021) argued that more research is needed to better understand how school leaders responded to the pandemic.

To this end, higher education leaders could benefit from considering how virtual teams differ from in-person teams. Understanding what leaders in higher education implemented during the pandemic will help determine what strategies work in their nuanced situation, what strategies they have yet to attempt to implement, and what practices they would like to maintain.

Many considered the pandemic ongoing at the time of this study, while others might have said it had ended and society was transitioning to a new normal. Either way, researchers are tasked to determine how the pandemic impacted higher education (Toquero, 2020) and what it means for the future. COVID-19 provided an opportunity to test how effective remote learning is on a large scale and a unique opportunity to reimagine education (Azorín, 2020). Gurukkal (2020) suggested that in higher education, online modes of learning are here to stay. Blankenberger and Williams (2020) argued that there would be continued demand for online learning, while some students and programs will return to in-person instruction as soon as possible. Blankenberger and Williams suggested that the unknown is where the equilibrium will lie between online and in-person learning, but regardless, institutions may need to adjust operational procedures accordingly. Blankenberger and Williams emphasized that online tools will not be optional anymore but will be expected to include virtual meetings and webinars.

Gurukkal (2020) argued that universities must consider how organizational structures will support the new normal. Student services programming and delivery will need to be adjusted in response to how the academic program is delivered and what the students prefer in terms of engagement. Changes might include modifying how services are delivered to support the continued use of online tools. For instance, students have grown accustomed to connecting virtually with student services departments and may expect this type of engagement to continue being available. Departments will need to thoughtfully consider their approach to organizing their teams.

For student services staff, the move to remote work brought to light several advantages of working from home. McMurtrie and Ostrikov (2021) discussed that many workers have an interest in continuing hybrid work (i.e., some in-person work and some remote work) and highlighted many benefits to hybrid work for both the worker (e.g., saving time and money on the commute and having a better work-life balance) and the employer (e.g., having increased productivity). Furthermore, while before the pandemic there was a belief that student services should only be offered in person, the plausibility and benefits of virtual service delivery were tested during the pandemic. With evidence to suggest that employees prefer remote work and the demonstrated viability of virtual service delivery, many staff are calling for and expecting remote work to continue to be available to them in some capacity.

The move to remote working and online program delivery, paired with the push toward a hybrid work model in the future, has emphasized the need for leaders to adapt to complexity. Uhl-Bien (2021) highlighted how the pandemic demonstrated that effective leaders create adaptive environments and respond with creative solutions when faced with complexities such as those introduced by the pandemic. Changes in how higher education is delivered will continue as institutions emerge from the pandemic. Understanding how leaders managed their teams during the pandemic can clarify what strategies and practices could be helpful in a hybrid learning and working environment.

Virtual Leadership

In the literature, there is debate about the impact of leadership on virtual team effectiveness. For instance, Friedrich (2017) found in their study that effective leadership is not essential for virtual team performance. In contrast, other researchers discussed how effective virtual leadership can positively impact team performance (Ben Sedrine et al., 2021; Hoyt & Blascovich, 2003; Newman et al., 2020; Robert & You, 2017). Working and leading in the virtual environment poses unique challenges for leaders, and leaders must consider how to adapt their usual strategies and practices to be effective.

Speaking of challenges virtual leaders face, Pullman (2016) suggested that creating an effective virtual leader requires more than just strategies and practices. Those working in virtual work environments need to not only adjust but also “develop the mindset, attitudes, skills, and knowledge” to work in this environment (Pullan, 2016, p. 58). Leading and meeting through technology is “about developing the sort of facilitative leadership that can connect, collaborate with and motivate others in ways that command-and-control can’t” (Pullan, 2016, p. 58). In other words, virtual leadership requires a specialized approach.

In addition, virtuality impacts the type of leadership needed in teams. The impact of a leader’s behaviour on a team is stronger as virtuality increases (Liao, 2017). In particular, hierarchical leadership can be more effective in highly virtual teams because they are more complex (Eisenberg et al., 2016).

One gap in the current literature about virtual leadership is training virtual leaders (Alward & Phelps, 2019; Darics, 2020; Friedrich, 2017; Gamero et al., 2021; Purvanova et al., 2021). While the literature has insight into what type of leadership is more effective in the virtual environment, how best to prepare these leaders still needs to be confirmed. Likewise, while researchers identified training as a need, only a few wrote about what that training would include. Gamero et al. (2021) suggested training leaders for emotional intelligence and emotional communication, while Darics (2017) suggested training related to nonverbal communication in the virtual environment.

Leadership Competencies

To successfully lead virtual teams, leaders need the skills necessary to capitalize on the opportunities while addressing the challenges of this type of team. Every virtual team will require a leader who can support excellent communication (e.g., a high level of verbal and written communication competency and the ability to provide constant feedback), build trust, and deal with conflict (Maduka et al., 2018; Pullan, 2016; Zeuge et al., 2020). Zeuge et al. (2020) suggested that virtual leaders must be self-confident, supportive, and visionary. Maduka et al. (2018) highlighted the need for personal characteristics such as self-efficacy, hope, optimism, and resilience.

A team’s virtuality will impact the skills the leader will need and whether they need to be an expert in task-based leadership, relationship-based leadership, or a mix of both. Considering virtuality as a continuum, the low virtuality end of the continuum will require a leader with more relational-based skills, while the high virtuality end will require a leader with more task-based leadership skills (Purvanova et al., 2021). As virtuality increases, the leader will need skills to support team integration that will increase the self-management of the team (Maduka et al., 2018). Technical skills are essential for virtual leaders, and as virtuality increases, they will need to be able to produce and monitor technical solutions that maintain relationships and facilitate tasks (Maduka et al., 2018).

Some researchers have studied the impact of emotional intelligence on leadership in virtual teams. Emotional intelligence skills in virtual leaders, such as self-awareness, self-regulation, and the ability to motivate, are helpful in the virtual environment (Zeuge et al., 2020). These skills are also a predictor of transformational leadership as well as a leader’s self-efficacy and ability to support their team emo-

tionally (Alward & Phelps, 2019). Likewise, Gamero et al. (2021) found that managers could improve the emotional intelligence of their team by modelling it, and an emotionally intelligent team will experience an improved team climate (in which the team would experience less anxiety and work-related tension), more effective interpersonal interactions, increased trust, less conflict, and better decision making.

Finally, the virtual world constantly changes as new technologies are developed. As a result, strong technical skills are essential for virtual leaders (Campion & Campion, 2020; DuFrene & Lehman, 2016; Laitinen & Valo, 2018; Pullan, 2016; Schulze & Krumm, 2017). Maduka et al. (2018) emphasized that virtual leaders need to be competent in monitoring changes in the virtual environment and considering the impact they may have on the team's work. How leaders can support their teams and their use of technology will be discussed later in this review.

Building Trust

Trust has been identified as a critical component of virtual teams, making it essential for virtual leaders to consider. Trust can help teams be more efficient and effective because the leader and team members have positive expectations about others' work and know they are accountable to each other (Alward & Phelps, 2019; Zeuge et al., 2020). In particular, (Ben Sedrine et al. (2021) found that trust in the leader led to increased team performance. Zeuge et al. (2020) argued that trust within a virtual team fosters creativity because people feel emboldened to experiment and make mistakes without worry. Pullan (2016) explained that without trust, leaders could not feel confident in delegating work and would view giving autonomy to team members as dangerous.

Virtual leaders must consider how the virtual environment impacts their ability to build trust between them and their team. Pullan (2016) explained that community and social capital are not as easily built and maintained in the virtual environment because there is less opportunity for informal conversations or meetings; however, such capital can be built by intentionally scheduling time for the team to connect socially. Leaders cannot rely on physical cues in the virtual setting but must consider how trust is built cognitively (Pullan, 2016). Consequently, leaders should consider using communication intended to build trust, focusing on media-rich communication channels and facilitating opportunities for synchronous information exchange (Liao, 2017). According to Ford et al. (2017), leaders can develop the trust of their team by being visible (including virtually), equipping their team with the proper tools, being consistent, developing processes for everyday team tasks, and being transparent in their work and decision-making. Honesty is a practice that leaders can use to instill trust, meaning that their team will be more likely to accept what they say in the future (Pullan, 2016).

Within the team, leaders should support practices demonstrated to build trust and adapt them to the virtual environment. Knowledge sharing is one way that researchers have identified that teams can build trust. In a study testing a research model with virtual teams in the information technology industry, Alsharo et al. (2017) found through survey data that knowledge sharing leads to the formation of trust. Knowledge sharing builds trust by promoting collaboration and appreciation for others' competence and expertise (Alsharo et al., 2017). Hence, leaders should consider how they can promote knowledge sharing within their teams. For example, the leader could require the team to share documents through cloud-based solutions so that several members can work on one document simultaneously and share resources that might be helpful for the rest of the team. According to Alsharo et al. (2017), further research is needed to determine if the environment affects how trust can influence a virtual team and what types of team-building strategies can be used to build trust through collaboration.

Marlow et al. (2017) emphasized that trust in virtual teams should be developed early on through intentional team building. Furthermore, opportunities for team members to engage socially can support trust building. Flammia et al. (2016) suggested that team trust is built through social communication, such as hobbies, interests, and family. Leaders could consider scheduling a virtual coffee break meeting where the team can meet to take a break from their work tasks and connect socially.

Communication

Communication is essential to leadership and can make virtual leaders more effective (Zouhairi & Attieha, 2021). Through communication, leaders perform essential leadership tasks such as demonstrating empathy, sharing vision, soliciting motivation, and facilitating task completion (Flammia et al., 2016;

Laitinen & Valo, 2018). For virtual leaders, communication is always mitigated by technology. This means that there are fewer opportunities for informal conversations, and a leader must intentionally use communication to connect with their team members (Pullan, 2016).

While communication is of utmost importance in virtual teams, more communication is not always better. Friedrich (2017) argued that leaders should focus on quality, not the quantity, of communication. Too much or too little communication can create issues within the team (Grzeskowiak, 2020). For example, if the leader communicates too much, it will convey that they do not trust their team (Friedrich, 2017). Instead of risking communication being too frequent, leaders could set up a regular contact schedule (e.g., email and memos) that is sent out to create predictability and to highlight vital information without filling the team's inboxes (DuFrene & Lehman, 2016). Too little communication may leave the team unsure about their expectations, leading to poor productivity and engagement (Grzeskowiak, 2020).

Virtual leaders should be careful to ensure their communication effectively conveys the desired tone and information and elicits the desired response (i.e., team member follows through with the desired task) (DuFrene & Lehman, 2016). Creating a balance of relational and task-oriented interactions is critical (Darics, 2020; Laitinen & Valo, 2018). Poor communication can lead to team members experiencing anxiety, confusion, and miscommunication, which could then affect team effectiveness (Flammia et al., 2016). While conveying certain emotions, such as empathy, virtually can be difficult, leaders should be diligent in their attempts (Grzeskowiak, 2020). When conveying emotion, leaders should be careful in their communication format. DuFrene and Lehman (2016) suggested that phone calls might be the preferred method because it would allow the leader to check for understanding more efficiently.

Similarly, leaders should consider how their chosen modality could influence the response from the team. Leaders should consider what type of communication format their team might prefer (e.g., email, messages, one-to-one meetings, and phone calls) and how that might affect their responsiveness (Han et al., 2017; Pullan, 2016). If team members do not respond well to computer-mediated messages, a leader might be more successful in getting a quick response if they call that person on the phone.

Regarding task completion, leaders should use communication as a tool to summarize the team's work and keep track of ideas in progress (DuFrene & Lehman, 2016). Documenting processes and decisions is vital to keep everyone on the same page and ensure shared understanding. Leaders should consider how they can utilize technology to support this type of communication (Laitinen & Valo, 2018).

Leaders should also consider how their team might communicate nonverbally with them in the virtual environment. This might require them to ask detailed questions and take more time to interpret and analyze responses and behaviours (Flammia et al., 2016). Instead of visually displaying their confusion in frustration, individuals' lack of response may be what communicates this information to their leader. In these cases, leaders should follow up with unresponsive staff and ask if anything prevents them from continuing with the task. Intentional follow-up may be helpful because, in the virtual environment, there are few opportunities to clarify matters through casual conversation, which is a common tool used in face-to-face teams. Leaders should also consider that everyone has their communication style, which could influence their nonverbal communication (Darics, 2020). For example, DuFrene and Lehman (2016) found that women are more likely to use computer-mediated communication, including socioemotional communication in a group, more often and effectively.

Likewise, leaders must be careful about what they communicate nonverbally, both through text and behaviours. For example, leaders who respond quickly to staff inquiries communicate that they value their team (Flammia et al., 2016). On the other hand, leaders can communicate nonverbally through text. In their study, Darics (2020) analyzed a variety of nonverbal cues in computer-mediated communication, finding that the meanings of these cues are not always clear. While Darics argued that these ambiguous cues are not necessarily negative, leaders should have superior communication skills to ensure they do not result in miscommunications with their staff. Darics (2020) encouraged further research on text-based nonverbal cues and their meanings in computer-mediated communication.

Finally, leaders should find ways to ensure effective communication within their team (i.e., between team members). One way to do this is to develop clear guidelines for communication. This could include email etiquette standards, response timelines, choosing appropriate modalities for communication, and follow-up practices (DuFrene & Lehman, 2016; Grzeskowiak, 2020; Han et al., 2017).

Preventing and Responding to Conflict

While every team is subject to conflict from time to time, virtual teams have a nuanced experience with this challenge, leading some researchers to focus on what leaders should do to prevent conflict in virtual teams. Pullan (2016) encouraged leaders to be clear and transparent about decision-making and team processes. For example, the leader should be clear about how they will manage conflict when it does arise.

Liao (2017) suggested that leaders focus on strategies that ensure effective communication as a way to prevent conflict. They explained that this might include organizing meetings to discuss issues, establishing communication routines, and clarifying communication channels. Leaders should be aware that poor communication, including a lack of prompt responses to team member communication, can potentially create or exacerbate conflict (Flammia et al., 2016).

Another strategy suggested by Pullan (2016) is that leaders should closely monitor their teams for behaviours that indicate conflict may develop and deal with the situation quickly. In virtual teams, they explain that communication surrounding a conflict must be more intentional than in face-to-face teams. This could be through a meeting, phone call, or written communication since face-to-face or impromptu conversations are difficult or impossible. Pullan (2016) suggested clarifying both sides of the conflict to promote understanding and that the leader should also share how the conflict impacted them.

Another way to reduce instances of conflict is for the leader to facilitate intellectual stimulation within the team (Friedrich, 2017). Friedrich (2017) explained that by focusing on stimulating the team, they would approach problems curiously and collaboratively rather than skeptically and defensively. With this approach, team members will naturally work together to solve problems and improve processes.

Finally, each time a conflict occurs, leaders should take time to learn from it so it is less likely to happen again. Pullan (2016) suggested that conflict can be a way to move toward being a high-performing team, as it can help transform teams and build deeper relationships.

Supporting Technology Use

Since virtual teams rely on technology for all task work and team communication, leaders should be equipped to support their staff using any technology required for their jobs. This would include responding to any staff who are anxious or resistant to using technology, providing guidelines for technology use, and troubleshooting technical issues that arise.

Leaders should be aware that some of their teams may struggle with technology use more than others. DuFrene and Lehman (2016) pointed out that younger workers often have the advantage when it comes to technology use in their jobs because they have been trained in the most up-to-date technical skills throughout their schooling. In contrast, some team members may have technology anxiety or poor perceptions of technology that could affect their ability to complete their work tasks (i.e., either they do not know how to complete tasks or they avoid completing tasks) as well as communicate with other team members (Laitinen & Valo, 2018). Schulze and Krumm (2017) suggested that leaders respond to this type of team member by encouraging a “playfulness” approach to allow them to better understand the usefulness of each technology without feeling the pressure. Finally, clarifying expectations for technology use may also be a helpful approach to combat anxiety and avoidance (Laitinen & Valo, 2018; Schulze & Krumm, 2017).

Virtual leaders should have clear expectations for their teams about how to use technology. This might include specifying what technology to use for communication or work tasks. For example, DuFrene and Lehman (2016) suggested that leaders should consider how they could promote collaboration by requiring the team to use cloud-based solutions for documents with multiple team members who need to contribute. Pullan (2016) also provided examples suggesting that leaders should provide guidelines for how documents should be shared, named, tracked, and archived. In addition, leaders should also take the time to make meaning of technology to allow for its more successful use (Laitinen & Valo, 2018). This means clarifying why the team uses technology for a particular task and addressing any negative perceptions to create buy-in. Laitinen and Valo (2018) cautioned leaders that if staff have a negative perception of technology, they may avoid completing tasks that require it.

Leaders should always be prepared for technology failure; Campion and Campion (2020) suggested it is inevitable. When issues arise, their response should include being patient and empathetic with their team while they work through them (Campion & Campion, 2020). Pullan (2016) proposed that leaders

always have a backup plan for each technology they use. For example, if video calls are not working, team members should be equipped to use a phone to call into a meeting.

Methodology

This study used a qualitative case study approach. It focused on a mid-sized university in southwestern Ontario to explore how student services leaders adjusted their leadership practices and behaviours because of the move to virtual work during the COVID-19 pandemic. The data were collected through an online questionnaire, interviews, and a document review. Leaders (managerial or higher) in the student service division were invited to participate in filling out an online questionnaire. The questionnaire included questions pertaining to the research questions and was reviewed by a panel of experts before the study was conducted. The interview participants were identified from questionnaire respondents. Interviews were conducted virtually in a structured format. The interview questions examined the participants' experiences in leading a student services team that moved their work to the virtual environment because of the COVID-19 pandemic. The participants were asked to explain how their leadership behaviours and practices changed for virtual work and what strategies and behaviours they may carry forward to support a team that works in a hybrid format (i.e., some in-person work and some virtual work). Documents were collected from the human resources department at the university via their employee portal and from participants. Documentation included policy and process documents, resources, and communication (e.g., email and memos).

Twenty student services leaders participated in this study by completing an online questionnaire, while 10 of them completed an interview with the researcher. Of the twenty participants, two were vice presidents, one was an associate vice president, six were directors, and 11 were managers. The participants in this study were leaders of teams that delivered student services at a mid-sized university. Student services teams vary in the types of services they provide, and as a result, the nature of their work can vary just as much. For example, some leaders had teams that, before the pandemic, provided in-person services to students, while others provided services that were primarily delivered virtually. Likewise, the number of staff the leaders supervised varied from one to 48. Documentation was collected from the human resources department at the university that was the study site and from participants. In total, there were 55 documents collected, and some were duplicates (i.e., more than one participant shared the same document). Documents collected included webinars, websites, handbooks, and technology guidelines produced by the university, university staff, mental health organizations, business organizations, and business experts.

A template analytic technique was used to analyze the data. Crabtree and Miller (1999) explain that this method allows researchers to thematically analyze and organize their data by developing a list of codes that act as a template but are subsequently modified as additional data are analyzed. For this study, codes generated with one data source were then applied to the remaining data sources to identify additional data points. After all data were coded, codes were connected to identify themes and patterns.

Findings

Codes were generated from the interview data and then applied to the questionnaire responses and documentation to generate additional data points. No new codes were generated from the questionnaire responses or documentation. The data points were organized into a table to allow for themes to be identified. Table 1 shows the themes identified and the data sources from which they were drawn.

Table 1
Themes and Supporting Data Sources

Theme	Sources of data		
	Q <i>n</i> = 20	I <i>n</i> = 10	D <i>n</i> = 55
Theme 1: Reimagining communication			
The number of meetings initially increased, then a scheduled meeting pattern was set	12	8	6
Meeting dynamics changed including the role of chair	6	6	4
Use of one-to-one meetings	11	5	0
Modality of communication changed	20	10	5
Strategic communications	7	8	6
Communication work conventions and boundaries	7	10	12
Theme 2: Reconstructing work using technology			
Improving technical skills	0	9	7
Making processes virtual	20	10	12
Offering services virtually	6	9	4
Using institutional tools	20	10	5
Collaborating with cloud-based solutions	20	9	3
Equipping staff with equipment	0	6	5
Theme 3: Reframing team support			
Increased focus on the mental health and well-being of staff	3	10	11
Providing flexibility to support team	7	10	4
Changes in team building and socialization	10	9	12
Modelling behaviours that support well-being, effective work	1	8	3
Pandemic-related personal issues	4	9	4
Theme 4: Reorienting toward hybrid work			
Benefits of hybrid work	18	10	25
Strategies that will carry forward to hybrid work: team support, flexibility, varied meeting schedule	18	10	27
Challenges of hybrid work: best practices, equity	0	10	27
Unknown of how hybrid work will be utilized	0	9	9

Theme 1: Reimagining Communication

Student service leaders expressed several changes to how they communicated with their teams because of moving to the virtual working environment. While working in person, they often communicated virtually, but face-to-face communication was also possible. After March 2020 and the pivot to virtual work, all communication was mitigated by technology. They could no longer walk down the hall to talk to someone or quickly have a private chat after a group meeting. Virtual work meant that leaders could communicate with their staff only through computer-mediated methods: email, text-based chat, or virtual call (video or voice). For these reasons, leaders reported needing to rethink how they communicated with their teams.

Before March 2020, leaders reported that most of their communication was through in-person meetings (formal), in-person conversations (informal), telephone, and email. In comparison, after transitioning to the virtual work environment, communication occurred primarily through video calls (scheduled and impromptu), email, and computer-based text messaging (for communicating with the whole team and individual staff). As a result of this shift, all leaders shared that they needed to reconsider which modality lent itself best to the different types of communication needed for their team to conduct its work. For instance, two leaders shared that while working in person they would often compile a list of issues to “save them up” for discussion at a scheduled meeting. However, in the virtual environment, they often dealt with minor issues immediately through text-based chats that offered a much quicker resolution. Some leaders spoke about the increase in volume of email and text-based communications and the unique challenges they brought. On the challenges of text-based communication, one leader shared that “it takes more work to understanding the tone and their intent not just the words that they’ve written.” Alternatively, one leader spoke of how email was used more informally for quick messages when their teams worked in person. However, since moving to virtual work, email is often reserved for more formal communications, while text-based chat is used for those informal conversations.

Leaders discussed that the number of meetings they had with their team increased at the outset of the move to the virtual working environment. They shared that this was partly to address issues related to the COVID-19 pandemic, including information sharing and intensive planning required to support shifting service delivery from in-person to virtual. Furthermore, since teams were not accustomed to this type of work modality, the leaders reported that their teams needed this touchpoint while settling into their new working environment. Several leaders also highlighted that they started scheduling one-on-one meetings with their team members to ensure their individual needs were being met. One leader commented that these one-on-one meetings were a way to replace informal conversations often occurring in the hallway when the team was working in person. Another leader recognized that more meetings were necessary because of the lack of social exchanges that often double as work conversations. As time passed, these leaders described a gradual decrease in the number of meetings. They shared that this was because the team formed new habits about communicating in new modalities (e.g., computer-based text chats) as well as an intentional decrease because of what has been termed Zoom fatigue. According to the participants, Zoom fatigue refers to the fatigue some experience from participating in many video-based meetings. Leaders shared that staff found the increased screen time more mentally and physically draining than face-to-face meetings. Finally, documents collected that referred to virtual meetings included tips related to meeting frequency and ways to encourage staff engagement during virtual meetings.

Meeting dynamics was another change that leaders reported they had to navigate in the move from in-person to virtual work. One leader highlighted that the role of the meeting chair had to be adapted. More specifically, only a meeting chair was needed for in-person meetings, but having a chair and a moderator for a virtual meeting was often helpful. The moderator would monitor the meeting chat for points and questions to add to the conversation, share links or information in the chat, and help resolve technical issues so the chair could focus on facilitating the meeting agenda. Likewise, the meeting chair needed to consider how to keep participants engaged. Two leaders mentioned that the temptation to multitask in virtual meetings made it essential to keep the agenda moving and be creative about including all participants. One leader commented that they would try incorporating virtual meeting tools like polls to keep their team engaged.

Many leaders shared that the shift in communication practices caused them to experience new challenges with setting boundaries with their work and communication with their teams. For example, multiple leaders alluded to answering emails or messages after their usual working hours, while others mentioned that for a time, they felt that they always had to be available. All leaders shared how they utilized a set of work conventions to ensure that communication expectations were realistic. Several leaders reported using work conventions documents shared by human resources that included suggestions for practices that could help with work boundaries. In contrast, two other leaders reported setting their own conventions for their teams. Some work conventions that leaders reported using included only sending emails during work hours and not multitasking during meetings. A few leaders recognized that many of the work conventions suggested would require increased self-regulation skills compared to those required for in-person work.

Leaders also shared that text-based communication posed new challenges and opportunities for them and their teams. One leader shared the opportunity to incorporate humour in their conversations by using images in Graphics Interchange Format (GIFs) and emojis. Two other leaders discussed in their interviews that they honed their written communication skills in response to the increased written communication. One leader shared that their verbal communication was often verbose, and written communication required them to be more concise.

Leaders discussed in their interviews that communication modality was varied and inconsistent when their team moved virtually because the staff used it organically without guidelines or structure. Seven leaders discussed the need for strategic communication in their questionnaire responses. For example, one leader described how their staff would send an email and then a computer-mediated message to confirm if the email was received. Another example was some staff using Zoom video meetings while others used Microsoft Teams. Two leaders explained that they produced a communications strategy for their team to address these issues. Once this was implemented, they said it resolved the issues they were experiencing. On the other hand, four leaders mentioned that they felt their team organically developed their communication strategy, which was clarified through the work conventions resources (documents) shared by human resources.

Theme 2: Reconstructing Work Using Technology

In March 2020, when staff at the university started to work virtually, the dominant concern of leaders was ensuring that their work could be conducted virtually and their services delivered virtually. First, leaders shared that any paper-based processes related to their services had to be made virtual. Furthermore, they needed to determine how to connect with their student populations virtually. Some of the documents collected outlined departmental processes and demonstrated how technology was leveraged in creating virtual processes to support the work of department. For example, one leader shared a document outlining an application process that was previously entirely paper-based but was modified to utilize cloud-based document sharing and electronic signature collection.

The leaders shared that they were already working on doing their work and processes more virtually before the pandemic, but they varied in how much they had progressed on this. In their interviews, four leaders described being able to transition seamlessly because they already used an online-based tool for tracking or as a database. Four leaders commented that they were starting to learn about some of the institution's web-based tools before the shift to virtual work, and this shift sped up their adoption of it.

Several leaders spoke about equipping their staff with the resources to do their work virtually. This included equipment such as laptops, computer screens, headsets, and office chairs. Likewise, some software was adopted by the institution or individual teams to support their virtual work. For example, the institution purchased a Zoom license for teaching and workshops as well as an electronic signature application.

Doing work virtually changed some of the nuances of the workflow and the use of institutional tools. For instance, leaders shared that they were using collaborative documents more in cloud-based versions of Office 365. One leader shared that this allowed for more transparency and iteration compared to their practices before the pandemic. This means that when working together on a document, rather than sending versions of the document back and forth as an email attachment, staff can all work on a cloud-based document—in this case, the institution supports the online version of Word based in the Microsoft Office 365 suite of applications—that is updated in real-time and can tag and notify users when their feedback is requested from another user. Three leaders also commented on how using cloud-based documents and files increased transparency among the teams since it became the expectation that most documents would be accessible to everyone on the team.

Similarly, how services were delivered was adapted to the virtual environment. Leaders shared that they had to determine how best to connect with students and produce creative ways to engage with students in place of in-person events. To replace in-person meetings with students, all service areas offered video-call meetings, most offered audio virtual calls (i.e., a video call without the video turned on), and few offered phone meetings. Three leaders shared how their teams developed courses to enroll students in the institution's learning management system to provide them with information they would usually access through an in-person event or resources they would usually access in hard copy when visiting

their on-campus spaces. Leaders shared how they tried to mimic how students traditionally used their services in the virtual environment. For example, some offered drop-in times through video meetings (i.e., a link to the meeting was shared with students so they could join when needed) or through computer-mediated chat.

Most leaders described how they gained and improved their technical skills to work in the virtual environment. These technical skills involved conducting work virtually, including speaking on camera, chairing, and participating in a virtual meeting, using cloud-based Microsoft 365 applications and the university's virtual private network. The most common applications were Teams, OneDrive, and SharePoint. In addition, half of the leaders who participated in the interview spoke of having to help their staff troubleshoot technical issues and point them to resources on how to use new tools. One leader described their experience as "learning on the fly," while another called it "trial by fire."

Theme 3: Reframing Team Support

From an analysis of the data, it was clear that for student services teams, the move to virtual work could not be separated from the COVID-19 pandemic experience. According to the leaders in this study, the impact of the pandemic on leaders and their teams was intertwined with the challenges that also came with the migration to the virtual work environment. As a result, some of the challenges of team support were magnified by the staff's experiences related to the pandemic. This included additional childcare and child schooling needs, having many people in the home during work hours (leading to distractions and more demand on Internet connection quality), stress related to pandemic-related concerns, isolation, and increased work demands related to the pandemic response.

One change after the move to the virtual environment leaders described was an increased focus on supporting their team's well-being and mental health. Every leader who participated in an interview discussed this, and three mentioned this issue in their questionnaire responses. They shared that an increased workload related to moving work to a virtual format and pandemic-related stressors created a noticeable need within their teams. From the resources and links provided by human resources to leaders related to virtual and hybrid work, 46 referred to supporting their staff's mental health and well-being. One leader shared how their experiences affirmed their use of an empathetic leadership approach. They explained that using this leadership style required them to consider their staff as complex people for whom work is only one aspect of their lives and how much staff members' overall well-being can impact their ability to do their work effectively. Leaders described an empathetic approach that included meeting one-on-one with their staff, connecting with them more informally (e.g., asking what is going on in their lives outside of work), ensuring their workload was manageable, and troubleshooting any work problems. These meetings would allow them to consider practical ways to support this person's well-being. Similarly, one leader emphasized the importance of asking about and listening to the needs of their team and staff. They explained that, in their experience, other leaders made assumptions about what their staff needed and ended up implementing strategies that were not effective.

Likewise, leaders shared an increased need to affirm the efforts of the team but also each individual. Since stress was often high, leaders discussed how extra encouragement was needed to maintain team morale. One leader shared how they started the practice of doing "kudos" at the beginning of each team meeting where any team member could share how a teammate had done excellent work recently.

Leaders frequently used flexibility to support their teams. Sometimes this flexibility was to respond to their staff's home situation (e.g., flexing work hours to allow for childcare). Other times, flexibility was in response to staff's preferences to support their well-being. One leader spoke about how they relied on their emotional intelligence skills. There were times when their staff member was unsure of what they needed, and the leader had to make suggestions. They shared that to utilize this approach, they increased their contact with staff to stay in tune with their staff's needs. Leaders discussed the varied needs of their staff because of different circumstances in their personal lives. For instance, some staff would have challenges related to childcare, while others who lived alone may have been experiencing challenges related to isolation and loneliness. Some other strategies used to support team well-being through flexibility were meeting-free days, walking meetings (i.e., staff call into the meeting with audio only from a mobile device so they can walk while they participate), no email sent after working hours, encouraging staff to use personal or sick days to attend to their mental health, or suggesting staff end their days early to do self-care activities.

Team building and socializing changed considering the move to virtual work. Leaders described much less team socializing and team building in the virtual work environment. In response, human resources made resources and suggestions available about how leaders could engage their teams in team building and socializing virtually. However, leaders shared that the virtual environment does not lend itself well to socialization. Some leaders tried new techniques such as coffee breaks, using gaming platforms (e.g., Kahoots), and virtual celebrations (e.g., retirement, baby shower), but the interest and uptake was often poor. The consensus was that most group socializing does not translate well to the virtual environment. One leader shared a sense of loss, sharing that “not being able to see or interact with your team in the live environment really does impact collegiality ... friendships can be made, but it’s not the same and it can’t really be duplicated or mimicked in this medium.” Leaders identified that Zoom fatigue was also a factor in difficulty with team building and socializing. They explained that staff already spent significant time participating in video calls and would often opt out of virtual social activities if given the option.

One of the important ways leaders identified they could support their team was by modelling the behaviours they wanted to encourage their staff to have. For example, if the leader encouraged their staff to take time to do self-care activities during the day, they should also be doing that. Another example mentioned by participants was regarding not sending emails after regular hours. A few leaders mentioned that they had to practice this work convention intentionally because they found that if they did not, their staff members would likely feel they needed to put in longer hours to match their leader.

Theme 4: Reorienting Toward Hybrid Work

All of the leaders who were interviewed, and 18 out of 20 of those who completed the questionnaire, indicated that their teams would move forward with a hybrid approach to work for their team. While three leaders indicated that their services would return to entirely in-person in the questionnaire, they indicated in their comments that they would continue to allow their staff to work virtually when possible. There were differences in how leaders envision the divide between virtual work and in-person work. The differences were related to service delivery needs, the desire to give their staff as much flexibility as possible, and concerns about equity across their units and the institution. When the study was conducted, an institutional policy related to what they termed “flexible work” governed how many days per week employees were required to work in person. There was consensus among study participants that they wanted more control over determining what was feasible and best for their teams.

All leaders who participated in an interview discussed some benefits of working virtually that they felt could be maintained by supporting a hybrid work approach. One benefit of working remotely that can continue with hybrid work is the connection between the different campuses. In the past, leaders shared that meetings held with staff from both campuses were infrequent and time-consuming because of travel time and costs. In comparison, while working virtually, multicampus teams worked together seamlessly. In a hybrid environment, multicampus teams will be able to stay connected and provide support to each other. Another benefit shared by participants was improved meeting quality for multicampus teams. Before the pandemic, staff on the smaller campus would often join multicampus meetings via phone or video conference (only available in certain rooms) and often reported a poor-quality connection and difficulty participating. Four of these leaders shared that they would continue to have large team meetings virtually to allow employees from both campuses to attend. Likewise, leaders shared that most services offered to students virtually will continue to be available to students on both campuses compared to pre-pandemic when only in-person services were offered.

Leaders shared that their teams would continue to do their work as virtually as possible, regardless of whether they work in person or remotely. For example, paper-based processes moved to a virtual format will remain virtual. Leaders also spoke that their hybrid work approach would continue to rely heavily on video meetings, computer-based text messaging, and cloud-based file sharing and applications. They felt that these virtual work tools allowed their teams to be more efficient and will continue to allow staff to transition quickly from in-person work to virtual work as needed.

When discussing hybrid work, leaders identified that they would continue with several team support strategies they had implemented while working virtually. Specifically, they spoke about continuing one-on-one check-ins with their staff to ensure their well-being, check on their workload, and answer

questions. Leaders identified that these would remain essential because leaders and staff may work in a hybrid format. As a result, they may not happen upon each other in the halls as when working entirely in person.

In addition, eight leaders who participated in an interview indicated they would like to continue to offer their staff members the same type of flexibility in the schedule as they did during the pandemic. This might include allowing them to flex their hours to tend to their children's needs (e.g., pick up from school) or do part of their day in person and another part virtually.

Another aspect that leaders identified they would like to carry forward is the varied meeting schedules. As noted previously, at the outset of the pandemic, teams were participating in a large volume of meetings, but then eventually, most petered out to a more consistent schedule. Leaders shared that they would like to continue a meeting schedule that provided some variation to keep the team connected but not overwhelm them. For instance, a team could meet as a large group every other week and one-on-one with their leader on the other weeks.

Still, some challenges remain from the pandemic experience that will impact the future of hybrid work. All leaders who did an interview discussed this issue. Two leaders shared that some of their staff identified fears about potential exposure to COVID-19 while working in person. Leaders shared that they may need to be flexible to respond not only to public health guidance and university policies regarding COVID-19 but also to what their staff members are experiencing.

Another challenge identified by the participants was related to how to conduct meetings. Some reported that they plan to have days where all their team are in person and to have large meetings on those days. Others suggested they would have larger meetings virtually to make it an equitable experience regardless of which staff were in person and which were working remotely on a given day. Likewise, others suggested doing one-on-ones in person only, while others did not identify this as a priority.

How to promote equity and flexibility in a hybrid team simultaneously was a challenge that leaders shared that they were still working out. At the time of the study, the institution was piloting a policy related to flexible work that limits leaders' abilities to have their staff members work virtually. Many identified that if, in the future, they were not governed by this policy, they would be willing to provide more flexibility to their team to work virtually when appropriate. Leaders highlighted the need to evaluate service needs and team needs to determine how often staff needed to be working in person. They also identified that what flexibility was implemented could depend on the staff member's personal circumstances since this might impact their preferences for work hours or days in person. Five leaders also spoke about equity in a hybrid environment and recognized that virtual work would not be equal for everyone. More specifically, how much virtual work may be possible for different staff and different teams would vary based on several factors (e.g., service needs and staff's personal circumstances). They recognized that this might make some staff (who want to work more virtually but their job functions or team situation will not allow for it) unhappy, but this would be a necessary challenge to navigate.

Three leaders spoke about the need to continue to develop indicators or best practices to ensure team effectiveness in a virtual or hybrid team. These leaders spoke about a pre-pandemic culture where if staff were in the office, they were presumed to be working. While two leaders challenged this notion, one leader was concerned about balancing employee wellness and preferences while ensuring productivity.

Leaders highlighted the unknowns related to the future of hybrid work. They shared that they were "learning on the fly" or figuring out what practices worked by trial and error. In other words, they had no training and little support in determining how to lead in the virtual environment. Leaders also suggested they could use additional training on best practices for measuring virtual team effectiveness, training staff to work virtually, and supporting their staff's well-being when working virtually.

Discussion

This study provides insight into how leaders responded to moving their teams to the virtual working environment. It allowed leaders to investigate how they changed their behaviours and practices to suit the new work modality. Although each leader shared a unique approach to their leadership, themes about what changes needed to be made were apparent.

Leaders shared that their communication practices changed when working virtually. These changes align with what other researchers found in their studies. Pullan (2016) argued that virtual teams are affected by fewer opportunities for informal conversations and, as a result, need to be intentional about

communication with their team. The leaders reported several strategies they used to create possibilities for informal conversations with their teams, including coffee times and one-on-one meetings.

Friedrich (2017), Grzeskowiak (2020), and DuFrene and Lehman (2016) highlighted the need for leaders to be thoughtful in how they communicate with their teams, including frequency and modality. Virtual leaders in this study shared that they communicated more effectively with their team once they developed and implemented strategic communication to address how and how much their teams would communicate. Specifically, they discussed that a high volume of communication was necessary to address pandemic-related issues at the outset of the switch to the virtual working environment. However, over time, it became excessive. Eight out of 10 leaders who completed an interview discussed that they intentionally created a strategy for how their team would communicate within their team and with students. Similarly, because of feedback from staff, human resources created work conventions resources that were adopted by many teams to guide their communication practices. Communication strategies that leaders found were effective included standardizing what modality to use for what type of information (e.g., having different chat streams in Microsoft Teams for social chat versus work chat; using email for nonurgent issues; using email for interdepartmental issues), agreeing on the timing of email (e.g., no email outside of usual work hours), and outlining appropriate response times.

DuFrene and Lehman (2016) suggested that virtual teams use cloud-based documents to improve collaboration within their team. All leaders in this study reported using cloud-based documents. About half of the leaders who participated in an interview shared that their teams were expected to use cloud-based documents to improve transparency and collaboration.

Bartsch et al. (2020) found that during the COVID-19 pandemic, successful leaders balanced task-oriented and relational-oriented behaviours to support their teams. Likewise, leaders in this study focused on supporting their teams with their work tasks and well-being. What is not clear in either of these studies is whether relational-oriented behaviour or, in the case of this study, supporting the team's well-being was needed because of working virtually or because of issues related to the pandemic.

In the study findings, the ways that leaders supported their teams in changing the way they conducted their work to suit the virtual environment were highlighted. These findings are nuanced when compared to the literature, likely because of the unique circumstance that led to the transition from in-person work to work for the leaders in this study (i.e., the COVID-19 pandemic). Whereas previous studies focused on teams that were always virtual (i.e., they did not undergo a transition), this study looked at teams that were changing their work modality. Specifically, several team support strategies were related to supporting workers who had additional personal challenges due to the pandemic, including childcare, sharing the Internet with others in the house, or isolation.

Prior studies reported that most workers wanted to continue to work virtually in some capacity (Kniffin et al., 2021; Owl Labs, 2020; Smith, 2021). Similarly, all leaders in this study shared that their teams wanted to continue to work virtually as much as possible and enjoyed the flexibility of working from home. How much virtual work would be allowed for hybrid workers is still unclear. The participants discussed how different units in the institution were piloting different approaches, and human resources were piloting a policy that would be reviewed after a year.

There is agreement within the literature that leaders would benefit from specialized training to address leadership in virtual and hybrid environments (Alward & Phelps, 2019; Darics, 2020; Friedrich, 2017; Gamero et al., 2021; Purvanova et al., 2021). Researchers such as Gamero et al. (2021) and Darics (2017) suggested that training be focused on communication.

When considering student services, leaders recognized that the amount of virtual work offered to staff is highly dependent on the services they offer and student preferences about how services are delivered. One leader discussed how the feedback they had been getting from students was that there were positives to in-person and virtual services and events. They shared that students felt that virtual offerings were more convenient and in-person provided a better opportunity for connection. Three leaders also pointed out that the modality of events and services will be impacted by student preference. Many students have indicated they prefer workshops virtually but social events in person. Ultimately, how services are delivered will be determined by students and, in turn, will dictate the modality staff can work.

Leaders in this study included managers, directors, vice presidents, and an associate vice president. While managers were supervising staff who were not leaders, directors, vice presidents, and associate

vice presidents supervised predominantly other leaders. Although these leadership roles vary, the participants' responses were similar and not correlated to their leadership level. In other words, the four themes identified were found in the responses for each leadership level, and the participants identified similar challenges related to virtual work and reported using similar strategies.

Limitations

The purpose of this study was to improve understanding of virtual leadership. However, because data was collected in the context of the COVID-19 pandemic, the findings may not just be related to leadership in the virtual working environment but could also be reflective of how leaders responded to implications of working during the pandemic. While this does not invalidate the findings, further research should be done to confirm what was found in this study.

The data collection for this study was conducted almost two years after the start of the COVID-19 pandemic in March 2020. The participants had to recall their experiences from the beginning of the pandemic to share about changes in their leadership practices and behaviours. Significant time passage between an event and data collection can affect the quality of the results. An appropriate number of participants and data triangulation can help offset these concerns, both of which were used for this study.

Finally, this study used a case study approach with one site: a university in southwestern Ontario. Further studies could study other universities or organizations to determine if the findings are nuanced to this study site. Likewise, how leaders adapted their practices and behaviours in organizations in different geographical locations or different sectors should be considered in future research.

Recommendations

The widespread adoption of virtual work is new and in flux as organizations continue to shift their working modalities to meet demands for virtual services and the desire of their staff for virtual and hybrid work. Researchers should evaluate how organizations continue to adapt and on which work approaches they settle. In particular, the literature does not yet address how the modality of work is impacted by service delivery needs or customer preference and could be further explored.

Likewise, while leaders in this study proposed what practices they would continue to use in a hybrid work environment, implementing these strategies has yet to be confirmed or evaluated. After some time, researchers should investigate what practices were utilized and measure their effectiveness.

Technological tools for virtual leadership should continue to be investigated by researchers, human resource departments, and leaders. For example, the leaders in this study discussed the desire to reduce the number of meetings their staff needed to attend. They might consider what technological tools they could use to accomplish this. For instance, they might consider recording video messages with updates and information for their teams to view at their convenience rather than conducting meetings.

In addition, researchers could consider if leadership level influences the behaviours and strategies used by a leader in virtual and hybrid work environments. In this study, there seemed to be no correlation between leadership level and types of strategies used; however, further studies should be conducted to investigate this concept in depth.

Finally, the need for virtual leadership training remains. The results of this study align with the gap identified in the literature related to virtual leadership training. The leaders in this study reported that they had to learn by trial and error and that training would have been valuable. As reported in the literature research, training information and programming based on leaders' needs would meet a significant need.

Conclusion

This study aimed to gain insight into how student services leaders at a university changed their leadership behaviours and practices because of moving their teams to the virtual working environment during the COVID-19 pandemic. The data analysis identified four themes: reimagining communication, restructuring work using technology, reframing team support, and reorienting toward hybrid work.

The findings in this study are aligned with what was suggested in the literature: while many aspects of virtual leadership are like the leadership of teams that work in person, there are some areas of nuance. In particular, virtual leaders use different practices and behaviours related to communication, the use of

technology, and team support.

The participants confirmed that work at their university would be done in a hybrid capacity because students want to access services, and staff desire to work, in a hybrid format. Working in a hybrid format, staff will do some work virtually and some work in person. Leaders should continue to develop their leadership practices and behaviours as they settle into hybrid work and to often reflect on what improvements could be made. The leaders in this study shared that many practices they implemented while working exclusively virtually have promising applications for hybrid work teams. It would be valuable for researchers to investigate leadership behaviours in teams implementing a hybrid work model.

References

- Alsharo, M., Gregg, D., & Ramirez, R. (2017). Virtual team effectiveness: The role of knowledge sharing and trust. *Information and Management*, 54(4), 479–490. <https://doi.org/10.1016/j.im.2016.10.005>
- Alward, E., & Phelps, Y. (2019). Impactful leadership traits of virtual leaders in higher education. *Online Learning*, 23(3), 72–93. <https://doi.org/10.24059/olj.v23i3.2113>
- Azorín, C. (2020). Beyond COVID-19 supernova. Is another education coming? *Journal of Professional Capital and Community*, 5(3–4), 381–390. <https://doi.org/10.1108/jpcc-05-2020-0019>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- Ben Sedrine, S., Bouderbala, A., & Nasraoui, H. (2021). Leadership style effect on virtual team efficiency: Trust, operational cohesion and media richness roles. *Journal of Management Development*, 40(5), 365–388. <https://doi.org/10.1108/jmd-10-2018-0289>
- Blankenberger, B., & Williams, A. M. (2020). COVID and the impact on higher education: The essential role of integrity and accountability. *Administrative Theory and Praxis*, 42(3), 404–423. <https://doi.org/10.1080/10841806.2020.1771907>
- Campion, L. L., & Campion, E. D. (2020). Leading matters: Take it from the professionals—A high-level overview of virtual leadership according to educational technology scholars (and a few others). *TechTrends*, 64(1), 182–184. <https://doi.org/10.1007/s11528-019-00470-7>
- Crabtree, B. F., & Miller, W. L. (1992). A template approach to text analysis: Developing and using codebooks. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (pp. 163–177). SAGE Publications.
- Darics, E. (2020). E-leadership or “how to be boss in instant messaging?” The role of nonverbal communication. *International Journal of Business Communication*, 57(1), 3–29. <https://doi.org/10.1177/2329488416685068>
- DuFrene, D. D., & Lehman, C. M. (2016). *Managing virtual teams* (2nd ed.). Business Expert Press.
- Eisenberg, J., Gibbs, J. L., & Erhardt, N. (2016). The role of vertical and shared leadership in virtual team collaboration. In C. Graham (Ed.), *Strategic management and leadership for systems development in virtual spaces* (pp. 22–42). Business Science Reference. <https://doi.org/10.4018/978-1-4666-9688-4.ch002>
- Flammia, C., Cleary, Y., & Slattery, D. M. (2016). *Virtual teams in higher education: A handbook for students and teachers*. Information Age Publishing.
- Ford, R. C., Piccolo, R. F., & Ford, L. R. (2017). Strategies for building effective virtual teams: Trust is key. *Business Horizons*, 60(1), 25–34. <https://doi.org/10.1016/j.bushor.2016.08.009>
- Friedrich, R. (2017). *The virtual team maturity model: Performance improvement of virtual teams*. Springer.
- Gamero, N., González-Anta, B., Orengo, V., Zornoza, A., & Peñarroja, V. (2021). Is team emotional composition essential for virtual team members’ well-being? The role of a team emotional management intervention. *International Journal of Environmental Research and Public Health*, 18(9), 4544. <https://doi.org/10.3390/ijerph18094544>

- Grzeskowiak, R. (2020, September). 4 vital virtual leadership skills. *Leadership Excellence*, 30–32.
- Gurukkal, R. (2020). Will COVID 19 turn higher education into another mode? *Higher Education for the Future*, 7(2), 89–96. <https://doi.org/10.1177/2347631120931606>
- Han, S. J., Chae, C., Macko, P., Park, W., & Beyerlein, M. (2017). How virtual team leaders cope with creativity challenges. *European Journal of Training and Development*, 41(3), 261–276. <https://doi.org/10.1108/ejtd-10-2016-0073>
- Hoyt, C. L., & Blascovich, J. (2003). Transformational and transactional leadership in virtual and physical environments. *Small Group Research*, 34(6), 678–715. <https://doi.org/10.1177/1046496403257527>
- Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberg, P., Bapuji, H., Bhawe, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Johns, G., Keszsebir, S., Klein, P. G., Lee, S. Y., ... Vugt, M. van. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63–77. <https://doi.org/10.1037/amp0000716>
- Laitinen, K., & Valo, M. (2018). Meanings of communication technology in virtual team meetings: Framing technology-related interaction. *International Journal of Human-Computer Studies*, 111, 12–22. <https://doi.org/10.1016/j.ijhcs.2017.10.012>
- Liao, C. (2017). Leadership in virtual teams: A multilevel perspective. *Human Resource Management Review*, 27(4), 648–659. <https://doi.org/10.1016/j.hrmr.2016.12.010>
- Maduka, N. S., Edwards, H., Greenwood, D., Osborne, A., & Babatunde, S. O. (2018). Analysis of competencies for effective virtual team leadership in building successful organisations. *Benchmarking: An International Journal*, 25(2), 696–712. <https://doi.org/10.1108/bij-08-2016-0124>
- Marlow, S. L., Lacerenza, C. N., & Salas, E. (2017). Communication in virtual teams: A conceptual framework and research agenda. *Human Resource Management Review*, 27(4), 575–589. <https://doi.org/10.1016/j.hrmr.2016.12.005>
- McMurtrie, J. C., & Ostrikov, K. (2021). Hybrid participation options to mitigate discrimination and maximise productivity in post-COVID higher education and research workplaces. *Physical and Engineering Sciences in Medicine*, 44(2), 339. <https://doi.org/10.1007/s13246-021-01017-y>
- Newman, S. A., Ford, R. C., & Marshall, G. W. (2020). Virtual team leader communication: Employee perception and organizational reality. *International Journal of Business Communication*, 57(4), 452–473. <https://doi.org/10.1177/2329488419829895>
- Owl Labs. (2020). *State of remote work*. <https://resources.owllabs.com/state-of-remote-work/2020>
- Parnia, A. (2020, May 4). *As COVID-19 batters higher education, a proposal to move online fast*. New England Board of Higher Education. <https://nebhe.org/journal/as-covid-19-batters-higher-education-a-way-to-move-online-fast>
- Pullan, P. (2016). *Virtual leadership: Practical strategies for getting the best out of virtual work and virtual teams*. Kogan Page.
- Purvanova, R. K., Charlier, S. D., Reeves, C. J., & Greco, L. M. (2021). Who emerges into virtual team leadership roles? The role of achievement and ascription antecedents for leadership emergence across the virtuality spectrum. *Journal of Business and Psychology*, 36(4), 713–733. <https://doi.org/10.1007/s10869-020-09698-0>
- Rehm, M., Moukarzel, S., Daly, A. J., & del Fresno, M. (2021). Exploring online social networks of school leaders in times of COVID-19. *British Journal of Educational Technology*, 52(4), 1414–1433. <https://doi.org/10.1111/bjet.13099>
- Robert, L. P., & You, S. (2017). Are you satisfied yet? Shared leadership, individual trust, autonomy, and satisfaction in virtual teams. *Journal of the Association for Information Science and Technology*, 69(4), 503–513. <https://doi.org/10.1002/asi.23983>

- Schulze, J., & Krumm, S. (2017). The “virtual team player”: A review and initial model of knowledge, skills, abilities, and other characteristics for virtual collaboration. *Organizational Psychology Review*, 7(1), 66–95. <https://doi.org/10.1177/2041386616675522>
- Smith, J. (2021, March 16). *Envoy survey finds employees want companies to embrace hybrid work and mandate COVID vaccines*. Envoy. <https://envoy.com/blog/envoy-survey-finds-employees-want-companies-to-embrace-hybrid-work-and-mandate-covid-vaccines>
- Toquero, C. M. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research*, 5(4), em0063. <https://doi.org/10.29333/pr/7947>
- Uhl-Bien, M. (2021). Complexity and COVID-19: Leadership and followership in a complex world. *Journal of Management Studies*, 58(5), 1400–1404. <https://doi.org/10.1111/joms.12696>
- Zeuge, A., Oschinsky, F., Weigel, A., Schlechtinger, M., & Niehaves, B. (2020, August 3–5). *Leading virtual teams – A literature review* [Paper presentation]. New Future of Work Symposium. <https://www.microsoft.com/en-us/research/uploads/prod/2020/07/NFW-Zeuge-et-al.pdf>
- Zouhairry, O., & Attieha, L. (2021). An evaluation of how educators in virtual teams perceive charismatic leadership during the COVID-19 crisis. *International Journal of Organizational Leadership*, 10(2), 155–170. <https://doi.org/10.33844/ijol.2021.60523>