Leadership in a virtual working environment.

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Brendan Wild
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Chapter 1: Introduction

1.1 Background to research

I have always been interested in the concept of leadership. As a young child growing up and looking up to leaders at home in my parents, at school in my teachers and on the sports field in my coaches, I was always fascinated by leadership behaviour and how leaders can get the best out of the people they lead. Having led sports teams myself and worked in teams that have been high performing and low performing under different leadership styles, my curiosity of what makes an effective leader began to grow. I would often ask myself questions such as "how was it that some leaders were so effective with particular teams but struggle with others?" Or "how was it that some leaders were great on a one-on-one basis but struggled in a group environment". With these questions, my curiosity continued to grow. Whilst my plan for my thesis was always to study leadership, things took a turn when trying to complete my thesis during the heart of the Corona Virus Disease 2019 (COVID-19) pandemic. I quickly began to realise that the concept of leadership, and how we see leadership in the workplace, would shift as we slowly adapted to our "new normal". Seemingly overnight, leaders and their teams were expected to shift and change the way they worked. In a time of great uncertainty, leaders would now be expected to lead in a virtual environment overshadowed by the challenges of employees fearing for their health and their job security and their general well-being and security. As employees and leaders became used to this new normal, it was clear that virtual working would be here to stay in some form or another. As I began my own experiences of virtual working and developing my own understanding of how leadership might work, it became clear to me that whilst employees weren't prepared for this sudden change, the impact on leaders would be immense. All of a sudden, leaders were needing to navigate technological challenges, project manage online and lead others through virtual means all while trying to keep their business afloat during an economic downturn. Furthermore, my concern was not only on the leader but the employees themselves, and I asked myself "what, in the eyes of an employee, can leaders do differently to be effective leaders in this new environment"? This sparked my curiosity which ultimately led to my thesis topic; how is effective leadership perceived and understood by followers and how can we understand this to ensure that leaders remain effective in a virtual environment.

1.2 The Current Leadership Literature

Leadership is a highly challenged subject that has been researched for a number of years and will continue to be researched as work continues to evolve (Antonakis & Day, 2017). To start with the leadership literature, it is worthwhile to review the evolution of leadership and how we have come to now understand leadership in the present day. In an early study conducted by Galton (1869), there was a general consensus that for leaders to be effective, they needed to be extraordinary and capable of radical change and in some cases history defining. This consensus was based on a concept called "hereditary genius" which, according to Galton, would support how we would identify leaders. This theory suggests that leadership is innate and leaders are essentially born with these characteristics and will pass these on to the next generation. Fast forward a hundred or so years and we now have a number of different leadership theories, concepts and ideas on what effective leadership looks like and how we study it. Whilst a definition for leadership is still contested, there is some consensus on the specific behaviours that make up effective leadership. For example, Zaccro (2001) defined effective leaders as those who are able to positively influence their followers by communicating a clear direction for collective effort, and effectively shaping collaborative team interests to align with this direction. This was similarly defined by Cote (2017) who suggests that effective leaders influence followers through a reciprocal process of persuasion to achieve common goals. Tannenbaum & Massarik (1957) defined leadership "as an interpersonal influence exercised in situations and directed, through the communication process, toward the attainment of a specified goal or goals" (p. 3). Burns (1979) defined effective leadership as "leaders acting for certain goals that represent the values and the motivations, the ways and needs, the aspirations and expectations of both leaders and followers" (p. 29). And, Derue, Nahrgang, Wellman and Humphrey (2011) go a step further by breaking down effective leadership into three criteria namely task performance at the individual and group level, leader satisfaction, and overall effectiveness of the leader that considers both satisfaction and task accomplishment. Most definitions reflect the notion that to be an effective leader, leaders should purposefully influence others positively and effectively support guide and enable activities and relationships at both an individual, group and organisation level (Yukl, 1998). Other studies have emphasised the importance of personality, for example Sethuraman and Suresh (2014) suggest that specific personality traits are more favourable for leaders including dominance, sociability, high levels of energy, and resilience.

Effective leadership is a complex construct with research pointing to the idea of situational effectiveness i.e. leaders may be effective in one situation and ineffective in another (Alimo-Metcalfe, 2016; Antonakis & Day, 2017). The challenge however, is how we measure what effective leadership looks like (Alimo-Metcalfe, 2016) in a virtual environment. Now in the year 2022, as we still continue to navigate the COVID-19 pandemic, moving in and out of lockdowns and traffic light systems, and as we move towards a more virtual landscape, it is clear that the leadership landscape has changed. Not only are leaders now having to lead in a crisis induced workplace environment, but also in a virtual environment whereby leaders and their followers may not interact in a physical environment on a regular basis. In order to understand the leadership landscape, it is important to understand the theory in both a virtual and non-virtual environment and what constitutes effective leadership in both contexts.

1.3 Non-Virtual Leadership Theories

Trait Based Leadership Theory

Trait based leadership is one of the earlier researched leadership theories. Originally led by Stogdill and his "Great Man and Trait Theories" which suggests leaders are born and not made (Sethuraman & Suresh, 2014), trait-theory of leadership has effectively contributed to how we view and identify emerging leaders and suggests that certain innate qualities and characteristics clearly distinguish leaders from non-leaders (Khan, Nawaz & Khan, 2016). Whilst this theory does have its strengths, it also presents a number of limitations. For one, the theory is based on the idea that specific innate traits that people possess are more likely to result in effective leadership across all situations. However, there is a lack of consensus as to whether these traits are universal and those that have challenged this theory suggest a lack of accounting for situational variation in how these traits may apply in different contexts and situations (Zaccaro, 2007). An early study conducted by Stogdill (1948) reviewed survey research over a 43-year time period between 1904 to 1947, concluded that "the evidence suggests that leadership is a relation that exists between persons in a social situation, and that persons who are leaders in one situation may not necessarily be leaders in other situations" (p. 65). A counter argument made by Zaccaro (2007) is that leader attributes can be fluid in nature and therefore, can change and adapt through life experience, mentorship, development and specific targeted training programmes, suggesting that effective leadership is not necessarily innate and can be developed through experience and leadership training. Furthermore, traits reflect specific tendencies and preferences in people, but these are often manifested as behaviour through varying different

contexts and situations. The term trait activation theory is relevant in this case, which suggests that traits manifest into expected behaviours when the situation makes the need for that behavior important, and if the situation does not call for it, the trait will not manifest (Derue et al, 2011). Whilst traits are relatively stable over time, the argument therefore, becomes that leaders who possess a specific kind of skillset can indeed, be leaders in one situation but may not be effective in others where a different set of skills and expertise may be required. Zaccaro (2001) provides a useful practical example of this by suggesting that leaders who have high fluid intelligence and the cognitive ability to problem solve, find solutions quickly and pick up new information but may have less patience for change and ambiguity or low achievement focus which may result in the high intelligence ability becoming redundant. Another example, is leaders high intelligence that can be useful for problem solving and findings solutions to complex challenges however, again could be redundant if the leader does not posess the social and communication capabilities to bring the team together to execute the generated solutions. Derue et al, (2011) found that leadership effectiveness should be influenced by a combination of both leader traits and behaviours. Their research included a meta-analysis of leadership studies found through an online search of PsycINFO and Web of Science that overall, leader behaviours, when compared with leader traits, aligned more closely with effective leadership but still concluded that leader traits were still necessary for leader effectiveness and suggested that further research in this area be done to fully understand the complex nature between effective leader traits and behavior.

Behavioural Leadership Theories

Criticisms of trait theories prompted researchers to consider how leaders' behaviors predicted effectiveness. This led to theories such as the contingency theory of leadership which highlights the importance of context and environment in effective leadership behaviour. Rather than being bound by a fixed trait, this theory more specifically emphasises an effective leaders ability to adopt the best leadership approach according to the situation. There is general consensus from researchers that leaders are "made and not born" and therefore, leadership skills can be learned and developed over time (Sethuraman & Suresh, 2014). Behavioural leadership theories focus on the concept that effective leadership requires effective behavioural responses within a given situation. To be effective, leaders need to identify the situation and the right behavioural response (Vroom & Jago, 2007). When thinking of leadership effectiveness as impacted by the situation, it is useful to refer to Fiedler's contingency theory (Fiedler, 1964). In his model, he

developed three situational variables that, when coming together, would either result in a favourable or unfavourable leadership situation. These variables include:

- Leader-Member Relations: There is a focus specifically on the followers' trust and confidence in their leader. More trusted leaders have a stronger influence within the group compared to leaders who are not trusted.

- Task Structure: This relates specifically to tasks for followers to complete. Tasks can for example be clear and structured or ambiguous and unstructured. Task that are unstructured are considered unfavourable or if there is little direction from the leader in how to complete the task.

- Leader's Position Power: This refers to power dynamics and more specifically, whether the leader has enough power to direct the group and provide reward or punishment. The more power a leader has, the more favourable the situation.

In his study, Fiedler divided leaders into relationship-motivated and task-motivated groups and found that different situations call for different leadership approaches. For example, if a situation already has an established good leader-team relationship and the tasks are well structured and organised; then a task-oriented leader may be more suited for this situation and perform best. In these situations, it is likely that team members have well-established relationships and get along with each other, the task is clear and structured, and the leader has sufficient power over followers. Therefore, the team simply needs a leader that can provide direction. In an opposite situation, typically viewed as unfavourable by Fiedler, a task-oriented leader may still be seen as effective. This is because, compared with a relationship-oriented leader, a task-oriented leader can offer a great deal of structure and direction when task structure is not clear and since the relationship between the leader and followers is lacking, a friendly relationship-oriented leader may not make a difference to the relationship. Where the relationship-oriented leader may be more effective is in situations of moderate favorability. For example, the leader may be moderately liked by the team, have some position power, and have to supervise tasks that are somewhat structured. In these situations, Fiedler highlights the importance of interpersonal skills in order to achieve group performance. In addition, these skills can also contribute to creating a positive group environment that will result in improved relations between a leader and their subordinates, as well as enhanced direction through more clarity in tasks and structure in what leaders and subordinates are doing. These attributes will also contribute to a stronger position of power within the team (De Bruin, 2020).

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Whilst behavioural models such as Fiedler's contingency model have contributed to the understanding of effective leadership, some research has questioned their acceptability. These researchers have suggested that what Fiedler and other researchers consider a "situation" has been over simplified, and does not consider the behaviours of leaders and their concern for people versus their concern with task performance as well as positive outcomes such as morale, job satisfaction and productivity (Northouse, 2015). These models also assume that there is only one leader at any point in time and distributed leadership is rarely considered, whereas in today's highly complex workplaces followers may report to multiple leaders across different departments (Bolden, 2011).

Transformational and Transactional Leadership

One of the most popular models in today's leadership literature is transformational leadership and can be defined as a leadership approach that establishes positive change by inspiring and motivating followers to achieve both individual and organisational goals (Bass & Riggio, 2006). Transformational leaders go beyond ordinary expectations of task and productivity to engage followers completely in an inspirational journey which has been found to increase engagement and productivity (Burns, 1978). According to Freeman (2017), transformational leaders are inspirational in their leadership because they articulate a compelling vision, emphasise collective identities, lead with confidence and make efforts to lead by example through their values and behaviours. Burns (1978) was one of the early researchers of transformational leadership and in his study of political leaders, described effective leadership as occurring when leaders and followers help each other to advance to a higher level of morale and motivation. Burns' research was then continued by Bass (1985) who considered the psychological mechanisms that underlie transformational leadership, as well as suggesting suitable ways to measure levels of transformational leadership on a continuum i.e. the extent to which a leader is transformational and the impacts of this on follower motivation and performance. Whilst Burns (1978) applied transactional and transformational theories to political leadership, Bass (1985) extended this research by researching these concepts in an organisational management context and concluded that effective transformational leaders, through their ability to provide an inspirational vision and mission, increased the level of trust, admiration and loyalty followers had for their leaders. In his research, Bass found that the leader transforms and motivates the follower by displaying the following four competencies: charisma, inspiration, intellectual stimulation and consideration. In a more recent study, Top, Abdullah and Faraj (2020) extended on this research and found that transformational

leaderships were strongly related to employee performance. In their study, 252 surveys were completed across managers and employees who worked in shopping malls and the results found that inspirational motivation followed by individual consideration for employees were correlated strongly with employee performance. Idealised influence and intellectual stimulation also correlated but was less of a correlation compared with the two. In terms of how these behaviours may play out in the workplace, it was suggested that managers should engage in positive communication and relationships with employees and try to motivate them about the strategic objectives of the organisation they are working for (Top et al., 2020).

Research has also shown that transformational leadership impacts employee commitment to organisational change (Yu, Leithwood, & Jantzi, 2002), which in today's climate is considered as an important factor as workplaces are increasingly volatile and are constantly evolving. Yu et al., (2002) studied the effects of principals' transformational leadership practices on teacher commitment to change and found that transformational leadership along with the school environment could positively influence teachers' commitment to the change process. This study also extended on Bass' findings by suggesting that leaders who were able to effectively use all four quadrants including inspirational motivation, idealised influence, individualised consideration and intellectual stimulation were more likely to inspire their subordinates to a higher order beyond their own self-interests and to contribute to a broader vision beyond their transactional day to day tasks. This also resulted in an increase in staff engagement, commitment, and selflessness (Bass, 1985).

In contrast to transformational leadership, transactional leadership is theorised as being more transactional in nature, with a focus on 'management' rather than 'leadership'. These leaders tend to incentivize rewards and punishment to achieve compliance from their followers. With a focus on the transactional nature of work, these leaders also tend to prefer the status quo and prioritise the completion of task, rather than bringing about change and innovation (Bass, 1985; Avolio, Bass, & Jung, 1999). Whilst transformational leadership has often been the preferred leadership in organisations, there have been some studies that suggest positive outcomes for leaders who adopt transactional leadership. For example, in situations where leaders are needing to facilitate efficient workflow, procedures and knowledge transfer, than a transactional leader may be effective over a transformational leader that may be trying to inspire a vision in these situations. Transactional leaders are therefore, efficient at enforcing systems, structures and the implementation of procedures, and they encourage and motivate followers to meet their required targets through these established systems (Devie, Semuel and

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Siagian, 2015). Devie et al., (2015) found in their research of 82 companies that when compared with transformational leadership, transactional leadership had more influence in developing organisational competitive advantage through leaders providing incentives to employees who had performed exceptionally. They also made reference to the effectiveness of transformational leadership and noted that the different leadership approaches bring benefits and challenges to creating competitive advantage in different ways. More specifically, transformational leadership tended to focus on competitive advantage in quality and innovation, whereas transactional leadership tended to focus more on delivery dependability and time to market. It was found that transactional leaders encouraged the employees to be the best in the market through prioritizing speed and accuracy to meet customer expectations whereas transformational leadership emphasised intellectual stimulation to empower employees to improve quality, with leaders supporting their followers to be creative and innovative in the way they operated.

Authentic Leadership

Authentic leadership emphasises a leader's ability to demonstraste authenticity through honest relationships with their followers, and encouraging mutual input into tasks, with an underlying ethical foundation to the way these leaders approach leadership. Avolio, Gardner, Walumbwa, Luthans & May (2004) define authentic leaders as those who have a high level of awareness as to how they think and behave and are perceived by others. These leaders are highly aware of their own and others' values, knowledge, and strengths and are essentially conscious of the context in which they lead. These leaders also tend to adopt a confident, hopeful, optimistic, resilient, and high moral approach to their leadership. Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) note that authentic leaders promote both positive psychological capacities as well as a positive ethical climate with the aim of fostering greater self-awareness and enhanced employee moral perspective. Walumbwa, Avolio & Gardner (2008) tested Authentic leadership across five separate samples obtained from China, Kenya, and the United States using the Authentic Leadership Questionnaire. This questionnaire is comprised of four key components including leader self-awareness, relational transparency, internalised moral perspective, and balanced processing. Results found a positive relationship between all four components of authentic leadership and higher supervisor-rated performance. Authentic leadership has also been found to increase resilience and the capacity to cope with problems during a crisis through building followers self-efficacy (Zehir & Narcikara, 2016). More so today than any other time this is particularly relevant as we navigate the challenges of COVID-

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19. Authentic leaders have also been found to create hope through demonstrating more hopeful leadership behaviors (Zehir & Narcikara, 2016). In a study conducted by Zehir and Narcikara, (2016) a 16-question survey was used to measure authentic leadership across 693 white collar employees working in private sector organisations. Authentic leadership was measured against four key areas including transparency, internalized moral perspective, balanced processing and self-awareness and found strong correlations between all four and an increase in organisational resilience.

Contextual Models: Leaders and followers

Leader Member Exchange (LMX) theory represents an early acknowledgement of context. This theory is unique to other studies in that it focuses on the dyadic relationship between leaders and followers (Graen & Uhl-Bien, 1995) and suggests that the strength of the relationship between the leader and their follower either positively or negatively influences decisions, responsibilities and performance. The nature of this relationship results in leaders having strong relationships with some of their subordinates whilst weaker relationships with others. The consequence of this is the formation of an in-group which receives more attention from the leader due to the strength of the relationship and an out-group which receives less attention due to the weak relationship. This theory therefore, acknowledges that not all leaders will treat their followers the same and that leaders can have particular preferences and 'favourites' amongst their teams (Graen & Uhl-Bien, 1995). In a review of the 79 studies including published articles, conference papers, doctoral dissertations and unpublished manuscripts, Gertsner and Day (1997) used a meta-analysis to identify key relationships between LMX and workplace variables. They found that followers in the in-group reported higher levels of overall satisfaction, commitment and role clarity whereas those in the out-group reported higher levels of role-conflict and turnover intentions. In a more recent study conducted in Finland, a qualitative analysis method was used to review negative interactions between leaders and subordinates to discover the dynamic and processual nature of a supervisory relationship through LMX. From analysing 336 responses, the results showed that breaches of the relationship might lead to a reassessment of the dyadic relationship between leaders and their subordinates and therefore, impact the social exchange process. The findings identify different types of exchange and interactions which led to the breach of LMX which could violate expectations of respect and empathy in the relationship. The incidents involved in this breach included unmet expectations of sympathy, unsupportive communication or bullying from the leader, as well as violated expectations of justice and loyalty which could

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come in the form of unfair favouritism, unmet resource expectations and unmet expectations related to shared information and work-related resources (Kangas, 2021).

1.4 Virtual Leadership Theories

Whilst leadership in a traditional workplace has been studied thoroughly, the leadership literature in a virtual (non-face-to-face) environment is limited. Some of the research that has been conducted has found differences between traditional workplace leadership and virtual leadership, particularly in the competencies and behaviours that are required. For example, Gupta & Pathak (2018) found that leaders who regularly work remotely require significantly greater communication skills, time management skills, collaboration skills, intercultural skills, self-drive, trustworthiness, sound technical knowledge and interpersonal skills, when compared with those that work in an office (Gupta & Pathak, 2018). Given the current COVID-19 climate where businesses are expected to shift from office to working from home, and post a COVID-19 world as organisations move towards making flexible hybrid working part of their policy, leaders need to adapt to these different situations and adopt a leadership style that is going to be perceived as positive for subordinates in order to create the most effective outcomes and ensure competitive advantage. The context of leadership will be impacted by virtual working and will influence how subordinates understand "who is seen as a leader, how effective a leader is perceived to be, and how effective a leader actually is" (Schmidt, 2014 p. 182). Louie (2017 p.9) notes that "working remotely changes the dynamics of interpersonal relationships, potentially requiring a remote leader to adjust the way that leaders manage and inspire others". Nevertheless, research has found that there are some general leadership behaviours that lead to favourable outcomes in a remote workplace. The aim of this thesis is to develop an understanding of effective leadership in a virtual environment, to understand what this looks like and whether effective leadership behaviour does in fact, transcend virtual and non-virtual contexts. Whilst virtual working is a relatively new concept, there is some research on virtual leadership largely developed within the last twenty years. This research is outlined over the next few pages.

Transformational and Transactional Leadership

There are several studies that conclude that transformational leadership behaviour is effective in a virtual environment. One of the early studies of transformational leadership in a virtual workplace was Berson and Avolio (2004). They concluded that transformational leadership is the most important leadership approach for virtual teams as this approach employs more

humanistic methods of influencing employees towards goal alignment and accomplishment as opposed to influencing by reward and punishment. In their research, transformational leaders would make efforts to connect with employees by taking interest in and devising policies aimed at employee development and growth. In another study, Baldoni (2020) concluded that an effective transformational leader is effective at building trust particularly when they are clear with their expectations and take the time to check-in with their team members on a personal level. Interestingly, Baldoni (2020) found in a virtual working environment, the command-and-control nature of transactional leadership becomes challenging as it is a lot harder for leaders to "peer over shoulders" or regularly check in unannounced. As a result, leaders needed to trust virtual workers to complete their tasks and meet expectations without micromanaging their output.

In one of the early studies of virtual leadership, Kahai, Sosik & Avolio (1997) identified the need for effective leadership within virtual groups. Building on knowledge from transformational and transactional leadership theory, their aim was to examine the effects of transformational leadership on the effectiveness of virtual teams performing a creativity task. Participants used a group decision support system (GDSS) which can be described as an interactive, computerised network where the participants could engage in problem solving and make group decisions. The findings suggested that virtual teams with leaders that demonstrated high transformational leadership produced more original solutions, solution clarifications, supportive remarks and questions about solutions. Hoyt & Blascovich (2003) tested transformational and transactional leadership in both non-virtual and virtual settings in a laboratory experiment with 144 Introduction to Psychology students. There were two virtual lab settings: one setting included an immersive virtual environment, with the other setting being teams communicating via intercom. In these different settings, leaders were asked to either engage in transformational or transactional leadership behaviours. Participants were placed into groups of three and had not worked together prior to the experiment. In the setting where participants communicated via intercom, participants engaged in communication through microphones and speakers which were located and interconnected across different rooms. In the immersive virtual setting, the participants were placed into a virtual reality room environment where they were presented as virtual avatars. They had the freedom to communicate with one another through the avatars and look around by moving their head. In each setting, the Transformational leaders were asked to emphasise the importance of the task and its wider application and to explicitly express confidence in the team's capability to

complete the task at hand. They were also asked to express the importance of questioning assumptions, showing originality, and for their team members to carefully think through their decisions. In contrast, transactional leaders were asked to emphasis the specific goals that needed to be achieved, the process for achieving them and the outcomes once achieved. Overall, the findings were that when compared with transactional leadership, transformational leadership in a virtual environment was associated with an increase in leadership satisfaction and group cohesiveness.

Kahai & Avolio (2007) also reviewed the effects of transactional versus transformational leadership styles on virtual groups. They ran a lab experiment to understand what effects transactional and transformational leadership styles had to participants in a virtual context. 42 student participant groups used an electronic meeting system (EMS) and were given the task of discussing an ethical issue of copying copyrighted software. Overall, the research found that the groups with leaders who adopted a transformational leadership approach had a greater balance in arguments and resulted in a greater change in the group participants willingness to copy the software. Specifically, the transformational leaders in these groups were instructed to motivate their participants by encouraging them to higher-order needs and values and fulfill their personal aspirations, as well as encourage the participants to collaborate in an effort to strive for a better conclusion. On the other hand, the groups with transactional leaders were more in favour of copying the copyrighted material. In these exchanges, the transactional leader attempted to motivate the group members by highlighting the contractual exchanges involved and emphasising what results would be derived from the information exchanges on the topic.

Whilst these studies demonstrate the effectiveness of transformational leadership, it is also important to note the role that technology plays in virtual leadership. The technological capabilities leaders had to lead their virtual teams has greatly advanced since 2004 and furthermore, whilst being laboratory studies, the settings in each of these do not replicate a virtual setting in today's workplace. Furthermore, the studies do not present an understanding of the long-term impacts of these particular leadership behaviours across long-standing professional virtual teams. In a much more recent field study, Fraboulet (2021) found that transformational leadership is highly effective for virtual teams particularly during times of crisis, having conducted research during the peak of the Covid-19 pandemic. In the study, Fraboulet conducted nine interviews with both subordinates and team leaders. All participants had worked previously in non-virtual office teams that moved to virtual due to the COVID-19 pandemic. The participants emphasised the importance of team cohesion during times of crisis

however, this was impacted by the virtual environment. They also noted that being physically separated from one another reduced motivation. Some participants explained that to reduce this barrier, leaders needed to focus on building team spirit as a way of keeping team members engaged and motivated. Both transactional and transformational leadership behaviour were seen to be effective through different ways. Transactional leadership offered the subordinates with structure and guidance and transformational leadership offered subordinates encouragement, increased team cohesion and coaching and development opportunities. It was also noted that Transactional leadership may be more effective at motivating staff to perform through incentives, recognition and reward. Leaders needed to be proactive in this area for example, in an office environment, one participant explained that leaders can provide recognition in a more informal manner however, in a virtual context everything needs to be direct and formal since there is no informal interaction per se. Some participants also noted that in a workplace clouded by the uncertainty caused by the pandemic, reward and recognition should be emphasised more explicitly in order for subordinates to stay motivated. In addition, participants emphasized the importance for leaders to establish clear expectations, objectives and goals at the individual and team level with leaders needing to communicate a clear framework for their expectations whilst working remotely. Some leaders in the study explained that during remote work followers tend to lose direction especially during a quick transition from non-virtual to virtual work environments caused by the pandemic and therefore, clear direction was seen to be very important. The participants also agreed that some form of leadership monitoring of the team was important for creating an effective team. Some of the participants went on to explain that leader monitoring is important to ensure that each member is doing their job in order to ensure productive outcomes. The challenge here is leaders not having oversight which could lead to some team members working less than others and therefore, monitoring can bring fairness which has an impact on the employees' motivation and team cohesion.

Theory X and Theory Y

Another theoretical approach that has been researched to understand leadership in virtual environments is McGregor's Theory X and Theory Y model. Theory X leadership is based on the implicit view that employees dislike work and, to keep them engaged, employees must be coerced, directed and monitored. Leaders who adopt this viewpoint assume that the only way to keep employees engaged is through external rewards. In contrast, a Theory Y viewpoint considers employees to be competent, trustworthy and productive (McGregor, 2006)

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In a virtual environment, leaders do not have the same visibility over their staff as they would in an office environment, This then calls for a more strategic approach to how leaders spend their time. For example, leaders could take a Theory X perspective and prioritise spending their time on performance management processes and checking-in regularly to ensure tasks are finished. This leadership behaviour is underpinned by a lack of trust, whereas if leaders adopt a Theory Y view and trust their staff, they would spend more of their efforts building effective and meaningful relationships. McGregor (2006) studied the impacts of the Theory X and Y leadership model on virtual workers and found that leaders who adopted the Theory Y approach had more time to focus on building and fostering key relationships and establishing trust with their followers which was found to decrease perceptions of employee social isolation in a remote workplace. Therefore, leaders who had trust and adopted a more personal relational based approach were found to be more effective.

Authentic Leadership

Klein and Scott (2021) conducted a case study analysis on the effects of authentic leadership in a virtual environment. They identified that authentic leadership would be an important factor for leading an internship course that quickly transitioned from a non-virtual to a virtual classroom environment. They identified that the following components of authentic leadership would be particularly important including: 1) being transparent, genuine and vulnerable; 2) curiosity, including a desire to learn, understand, and explore; 3) vulnerability, which includes being self-aware, open to reflecting on individual strengths and weakness and a level of comfort discussing these with others; 4) being open, with a level of comfort with being straightforward in actions and words; 5) honesty, including demonstrating ethical intentions and a moral code; 6) trustworthiness, including inspiring trust and reliability in followers 7) humility, including being humble and 8) a strong focus on relationships where individuals share genuine, real aspects of themselves to each other. It was concluded by Klein and Scott (2021) that leaders need to possess the above authentic leadership qualities in order to achieve success in a complex and everchanging environment as well as model resiliency and inspire during new or challenging times.

In a study conducted by Daraba, Wirawan, Salam and Faisal (2021), they investigated the role that authentic leadership played in predicting performance in a virtual environment. Participants were identified from a government institution in Indonesia. To collect the data, the participants received the Authentic Leadership Inventory questionnaire and were asked to rate their immediate supervisors' authentic behaviour based on their experiences in the past 3-

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months at the time of completing the survey. During the analysis process, the results supported the study hypotheses finding a strong correlation between employees' perception of leaders' authenticity and their overall performance in a virtual environment. Further findings identified that working virtually, more specifically working from home, could have a direct impact on employee's perception on how much support they receive from their leaders. In addition, the findings also suggested that female, when compared with male participants, had a higher chance of experiencing the positive impacts of leaders' authentic behaviours.

Task-Based Leadership

Task-based leadership, in which leaders focus on the task at hand, has been found to be effective in a virtual environment. Purvanova, Charlier, Reeves & Greco (2020) found that emergent leaders in a virtual environment gain credibility by focussing on introducing structure and order to the virtual team, which supported team members to resolve ambiguities and to prioritise goal accomplishment. In their research, they used two independent samples, one being a laboratory experiment with the other being a semester long group project. In sample one, the participants were randomly assigned to one of four different contexts separated by varying levels of virtual work. In the highest virtual context, the participants were completely separated physically from one another. In the lowest virtual context, three team members were co-located in one room, while the fourth team member was physically separated and placed in another location. The groups were given a challenge and a deadline to find the solution through collaborating with one another. The teams communicated mainly through email, with some teams supplementing the use of email with phone, texting, messaging through Facebook, or online chatting. The findings concluded that task-based leadership was more strongly associated with emergent leadership than other leadership behaviours such as mentoring and innovative thinking which could be more effective in a face-to-face environment. For the groups placed in the high virtual environment, the important leadership behaviours included achievement orientation and the functional task processes for achieving goals and targets.

Liao (2017) conducted a review of the virtual leadership literature and proposed that when virtual project leaders engaged in task-oriented leadership including delegation and co-ordination, and prioritising timeframes and deadlines, that this was likely to result in increased performance and productivity. Furthermore, Liao proposed that leaders who engaged in task-based behaviours assisted team members to set personalised work goals and a plan to accomplish jobs, which was found to be effective on short-term projects. Whilst Liao makes some interesting remarks regarding this topic, it is important to note that these are preliminary

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findings and will require further research. However, these findings do align with Purvona et al., (2020), who found that in virtual teams, team members tended to gravitate towards leaders who focused on and rewarded task completion and those leaders who took more of a pragmatic and coordinated leadership approach.

Task-based leadership was also found to be highly effective in a crisis-induced virtual environment. In a field study using participants from two large organisations located in Germany, Lee (2021) concluded that certain task-based behaviours including setting clear goals and outcomes, clarifying expectations and setting well-defined patterns relating to task output and completion resulted in higher performance outcomes. These findings suggest that in crisis-induced virtual work environments, where virtual team structures are usually not well-established, that a focus on structure, and task output was highly important. Similarly, Liang (2021) found that in a time of economic uncertainty related to the pandemic, task-based leadership behaviours brought about a level of cohesiveness and structure resulting in greater role security as well as clarity of roles in a virtual environment. Lee (2021) whilst highlighting the importance of task-based leadership, also highlighted the effectiveness of both task and relational based leadership behaviour suggesting a balance of both is required. Bartsch, Weber, Buttgen & Huber (2020) concluded that it was important for leaders to use both task and relationship-oriented behaviour to maintain productivity in a virtual environment, particularly during times of crisis within an organisation. This study used the input–process–outcome (IPO) framework to identify leadership behaviours that are effective for increasing performance for employees who unexpectedly, due to the COVID-19 lockdowns, had to move to a virtual work environment. The findings from 206 employees concluded that leaders were able to increase employee performance by balancing a task-based approach with a relational approach during crisis induced situations. This required a balance between focusing on obtaining organisational objectives through clarifying each task's goals and monitoring work processes, with enhancing collaborative interaction among virtual team members and encouraging a virtual environment where team members are supportive of one another.

E-Leadership

Another form of leadership that is specific to a virtual work environment is E-leadership. A widely accepted definition of e-leadership is: ''a process of social influence mediated through information technology to bring about a change in attitudes, feelings, thinking, behaviour and performance in individuals and groups as well as organisations'' (Avolio, Kahai & Dodge, 2000, p. 617). It has been found that effective E-leaders understand the virtual environment

and adopt specific strategies for that environment in order to lead and get the best out of their virtual teams (Freeman, 2011). The research on how the virtual environment has changed leadership through technology has been limited however, as technology continues to grow and develop we will most likely be able to get more from the technology tools available and it will continue to become an important part of work and leaders ability to lead effectively (Van Wart, Roman, Wang and Liu, 2019). E-leadership can occur throughout an organisation at both and individual and group level and can be associated with one individual or shared by several group members (Avolio, Kahai & Dodge, 2000). Essentially the goals of leadership do not change, however for e-leadership, the e-leader needs to fulfill those goals virtually through technology and to communicate with virtual teams that may be dispersed geographically (Das Gupta, 2011).

Van Wart et al., (2019) conducted an exploratory case study on e-leadership with the aim to understand what practical behaviours underpin effective e-leadership as well as what specific skills are required for using typical information and communication technologies (ICT's). The organisation used for the case study was a public university of approximately 19,000 students and the focus was on three distinct ICT tools: email (Microsoft Office Outlook), online teaching platform (Blackboard) and file sharing platform (Google Docs). Four different data collection methods were used including structured interviews, focus groups, self-administered surveys and participant observation. The participants identified a number of challenges for e-leaders.

1) Insufficient and poor communication in a virtual environment, with the challenge of a lack of opportunity for questions as well no clear directions and examples of model answers for students to follow.

2) Miscommunication and misinterpretation in a virtual environment. This typically occurred when jokes made by the leader, which would be understand in a non-virtual environment, were misunderstood.

3) Communication chaos in a virtual meeting room can be challenging particularly for asynchronous discussion collectively rather than in small groups. Whilst this may have worked well in a face-to-face meeting room, in a virtual environment, a single whole-group discussion may generate a number of varying threads and hundreds of postings that can be overwhelming.

4) Insufficient use of accountability incentives to make sure students are regularly attending the virtual classrooms. In a non-virtual class setting, it is obvious who is present which is an incentive for students to turn up, whereas in a virtual setting, this can sometimes be difficult to

identify. Many instructors in the study made note of wanting to encourage participation but needed to have more understanding of the online tools available to be able to take attendance and encourage and track participation.

5) Poor understanding of ICTs, with instructors only having basic understanding of the features available to them such as announcements and content folders, and were unaware of additional features such as automatic tracking of attendance and videoconferencing features to enhance the learning experience. Some students noted that for group projects, some instructors suggested that they should collaborate on a single paper, but did not have knowledge of the various file sharing options and therefore, were unable to support with any practical tips. The instructors also lacked confidence in their ability to use various online tools and they were perceived as too time consuming or unreliable. For example, videoconferencing software has become a lot more sophisticated with a number of features such as breakout rooms, online whiteboards, screenshare and embedding power-point presentations as well as polling options. However, it was found that these features were often not used.

7) Poor management of the basic technology and troubleshooting. Effective instructors should be competent in their ability to prevent common day to day basic problems that occur as well as being able to support and diagnose issues that others may be experiencing.

Malhotra, Majchrzak and Rosen (2007) also studied e-leadership to understand what leadership behaviours and practices contribute to effective virtual team leaders. The study used survey, interview, and observational data to identify these behaviours and practices. Upon analysis, it was found that successful e-leaders were able to generate and sustain trust through the effective use of the ICT tools available to them. Furthermore, being structured, organised and able to have oversight of individual and group work to effectively monitor and manage the life cycle of a project was also identified as important. Gurr (2004) argued that there are significant differences between leading traditional co-located office environments and virtual environments. Virtual environments require leaders to cope with a number of challenges and dilemmas that they may not have come across in a face-to-face environment with the most common challenge being the lack of physical connection. It was therefore, noted that the e-leader must create an appropriate social climate through sustained communication, and be able to deliver exceptional interpersonal skills to mitigate this lack of physical interaction.

1.5 Virtual Leadership Competencies

Fostering team identification

Fostering team identification within a virtual team environment can be challenging. In many cases, teams are likely to be diverse and dispersed and, in some instances, across countries and cultures. This raises challenges for both team members and their leaders in trying to feel part of the team despite the geographical distances and for leaders, the challenge is trying to foster a sense of team identity with individual team members. Sivunen (2006) identified specific strategies that leaders could use to foster team identification amongst virtual team-members. The participants were four virtual team leaders from international organisations who, at the time of the study, had either lead teams that had been together for a minimum of three months to a maximum of two years. There were three main sources of data including observation, interviewing, and the recording of actual conversations occurring through video conferencing. The results outlined four key effective behaviours that leaders could use including: (1) being accommodating and supporting subordinates as well as providing autonomy and empowering them to provide differing opinions during team decision making. This meant that leaders needed to be proactive and ask for feedback from each team member and welcome the differing points of view. (2) Providing positive constructive feedback at an individual and team level through reminding the team of their accomplishments and progress on a particular project. (3) Encouraging and supporting team members to work together to achieve common goals was also seen to foster team identity. (4) Talking up the team events such as team training and team building activities were found to increase team identity by creating team spirit and encouraging a sense of belonging. It was also noted that the role of technology is a key part of fostering team identification in a virtual environment. With the virtual team members having the option to use different types of communication tools, it provided opportunities to be heard and take part of discussions despite being geographically dispersed. The technology tools used essentially provided a "place", where members could meet and discuss decisions together.

Using technology to communicate

In Louie's (2017) phenomenological study examining the experience of 12 virtual leaders across a wide range of industries, six competencies emerged from the interviews, including communication, employee relations, individual leadership experience, employee or work issues, monitoring, and trust. Communication was identified as the most common theme followed by developing trust. Furthermore, Soon and Salamzadeh (2020) found a positive

relationship between communication and virtual team effectiveness. In their study, the objective was to examine the impact of digital leadership competencies on virtual team effectiveness using a sample of 150 respondents working in multi-national corporations in dispersed virtual teams. The results found that two key competencies including E-Communication and E-Trust correlated with virtual team effectiveness. Leaders who effectively used ICT's to communicate with clarity and provided clear direction could create a sense of trust by being perceived as honest and consistent. Sivunen (2006), also highlighted the importance of clear communication across a variety of ICT's including email, telephone and video conferencing software, as well as using these ICT's to allow team members opportunities to take part in discussions and key decision-making initiatives. The different types of ICT tools used seemed to strengthen identification with the team as each tool elicited a different form of language used. For example, the instant messaging system allowed for more casual informal chat which was found to contribute to creating a feeling of coherence and shared identity.

Some challenges in virtual communication were identified by Louie (2017). These included the absence of informal communications along with the inability to read emotion without facial cues and actions, which together could inhibit the chance to build effective relationships. Different communication technologies provide different ways for leaders to communicate and build relationships and each tool brings with it different benefits and challenges. For example, Webster-Trotman (2010) concluded that using email is effective in a virtual environment however, it does not always offer opportunities for real time communication as receivers of the email may respond later as opposed to in the moment. Email is also effective for communicating important and complex information that can be documented and the receiver of the email can return to the email later to make sense of it rather than needing to respond in the moment. Videoconferencing can be more efficient when quick responses or real-time conversations need to be had and this allows for decisions to be made in the moment. From a relationship building perspective, it also provides the additional visual cues that an email does not provide, such as voice tone, posture and facial expressions which can create more dynamic and enriched interaction between people. Because communication tools can often be accessed in real-time across many devices, this brings the challenge of blurring the boundaries between work and personal life and can make it unclear when a response is required. Cortellazzo, Bruni & Zampieri (2019) highlight the importance of leaders setting expectations around communicating and response norms, for example, when team members and leaders should communicate with each other as well as the appropriate nature of the communication and when

a response should be expected. Furthermore, Conteras, Baykal & Abid (2020) also highlighted that to be an effective communicator in a virtual environment, leaders need to be good at recognizing social cues to ensure the most effective and suitable communication style is provided. This is particularly important in multi-cultural contexts as organisations move towards globalised teams that are made up of team members from different cultures across geographical boundaries.

Thambusamy & Bekirogullari, (2020) conclude that a number of communication challenges brought about from the virtual environment can be overcome by adapting different leadership styles. In their study, they identify that when virtual leaders engage in virtual meetings, they need to consider the purpose of the meeting, the audience, and the context in which the meeting is held. By a leader effectively communicating their objectives, the agenda for the meeting, and the amount of time to be spent on each topic in the agenda, it allows for more organisation and structure which was often found to be missing in a virtual team meeting. Leaders also need to increase engagement time and opportunities for the team members to discuss, ask questions and express their opinions. In a virtual environment, it can be challenging for team members to speak up, and therefore, leaders need more encouraging discourse to draw out team members and increase their confidence. It was also noted that responsibility is on leaders to be proactive in how they initiate and encourage conversations on differing ICT's. Being structured and keeping to a clear plan along with keeping the communication channel open to support the dynamic nature of team conversations are also essential and should also be followed up with regular check-ins with team members to ensure that everyone is engaged. This can be done by connecting with different team members on regular occasions to answer questions or to provide comments on ideas being discussed. Without leaders being proactive, it can be easy for team members to become invisible. Leaders may also want to consider the duration as well as frequency of virtual meetings as the way things were done in a face-to-face environment may not apply in the virtual one. For instance, a face-to-face meeting that lasted an hour may not last as long virtually, because the virtual environment does not support opportunities for side conversations or digressions from the meeting agenda unless separated from the main room. In the study conducted by Fraboulet (2021), some participants noted that pre-pandemic and pre-virtual working, their leaders did not communicate as frequently as they did once the pandemic hit. These subordinates highlighted that after becoming a virtual team due to the enforced lockdowns, their team leader communicated more to the team in both a formal and informal manner and this was viewed as effective. Some participants also pointed out that their team

leader focused on team cohesion by using the technology tools available to implement informal video chats such as "coffee meetings". Besides increasing team cohesion, Fraboulet concluded that these informal meetings also helped to handle the lack of social interactions. In contrast to Fraboulet's findings on leaders communicating more frequently, Harris (2003) found that working from home resulted in reduced support at a leadership level which resulted in an eroding of trust from virtual workers in their leaders and company. This was found to be due to lack of communication from leaders and lack of effective checking in with subordinates, as well as lack of a demonstration of concern as staff transitioned to a working from home environment. Furthermore, whilst subordinates were working from home, they lost contact with other team members as they did not have opportunities to check in and "catch up" with one another. Whilst there were opportunities for this to occur during virtual meetings, meetings were often kept to a formal agenda and thus, resulted in a lack of opportunity for team members to build and maintain social relationships with informal conversations.

Building Relationships in a Virtual Workplace

Roman, Van Wart, Wang, Liu, Kim and McCarthy (2019) found that for leaders and subordinates to strengthen their relationship and meet the needs of socio-emotional bonding, leaders in a virtual environment should promote adequate social interactions via the virtual environment using the communication tools available to them. They found that leaders who made proactive efforts to do this had a stronger level of trust between themselves and their followers. Face-to-face work environments allow for relationships to occur organically because of the nature of the physical work environment. For example, leaders and their followers have the opportunity to bond by meeting at the water cooler or in the kitchen whilst making a cup of coffee allowing these relationships to develop more freely. In a virtual environment, this becomes a challenge as these water cooler or kitchen conversations aren't available. From a leader-subordinate relationship perspective, the office environment also offers opportunities for subordinates to simply pop into the leader's office or walk round to their desk to ask a question. Again, in a virtual environment, these exchanges become more challenging. Interactions in a virtual environment become more formal and do not always allow for casual interactions to occur. Ruggieri (2009) found that given these challenges, relationship focused leadership theories such as charismatic transformational leadership that emphasizes and prioritizes the subordinates' futures and development may result in more positive relationships between leaders and their subordinates.

Establishing trust

Savolainen (2014) found when conducting qualitative interviews with virtual leaders, that these leaders tended to focus on the impacts of trust and real-life work practices of their e-leadership and in particular, their desire to be a humane leader despite being dependent on the use of technology. This led to a desire to give their subordinates autonomy and responsibility for their work and prioritise coordinating, guiding and trusting rather than micro-managing. Leading by example was also an attribute discussed, with leaders perceiving that this behaviour would create and support a good workplace atmosphere and would show openness and honesty which was seen to promote trust-building in the leader-follower relationship. The interviewed leaders discussed attributes such as listening, approachability, human relations skills, honesty, supporting and equal treatment as being highly important for leading in a virtual environment. Cowan (2014) proposed that effective virtual leadership should be characterised by building trust with each member of the team and establishing a virtual "presence", preventing distance from becoming a barrier to the relationship. In doing this, leaders needed to connect with subordinates regularly which was found to increase perceptions of individual and shared identification at a team level. Soon and Salamzadeh (2020) found that virtual team members are highly dependent on collaborating with each other in order to complete the project assigned to them but compared to a non-virtual team, virtual team members may have very limited face-to-face meetings. Therefore, trust becomes highly important as tracking of each other's progress can be challenging. Virtual communication tools by their very nature do not allow for the same physical "closeness" that is evident in face-to-face interactions. However, they suggest that using tools such as video conferencing can narrow the gap but also address issues such as whether subordinates are paying attention.

Technological Competence

The use of new forms of communication technologies together with the geographical expansion of global teams, as well as an increase in flexible working policies have increased the need for leaders to use technology effectively (Darics, 2020). Thambusamy & Bekirogullari (2020) conclude that it is essential for leaders to learn technological skills such as how to operate virtual platforms, strengthening facilitation skills using technological tools, strategizing work flows and teams, and dealing with real-time issues, in order to create a highly engaged and thriving virtual team. Virtual leadership has been largely impacted by the growth of technology to the point where leading in this environment has become particularly complex. Therefore, the definition of virtual leadership may align more closely to "leadership in a connected world

where information is disseminated and increases quickly, where time and space are no longer limitations, and where different ways of communicating are continuously developing" (Torre & Sarti, 2020, p. 2) as opposed to simply the ability to lead via technological means. Van Wart et al. (2019) also proposed that e-leadership is "the effective way and blending of electronic and traditional methods of communication. It implies awareness of current ICTs, selective adoption of new ICTs for oneself, and the organization and technical competence in using those ICTs selected" (p. 83). Torre & Sarti, (2020) concluded that new technologies, which are increasingly used to make leadership more effective, play a relevant role in influencing it and acting as a facilitator for effective leadership interactions with subordinates in a virtual environment. Furthermore, they suggest that technologies offer useful support in expanding and reinforcing the relationships within virtual teams. Along with navigating technology, they also suggest that leaders should have a clear vision of their roles in blending traditional and innovative skills of technological tools. Therefore, HR and ICT departments should offer support in developing these skills, both in terms of team and individual training for leaders and followers. They further found that in those companies where e-leadership was considered positively and was supported, e-leadership became a strong reinforcement of the new way to work in organisations and helped to embed any new technological change amongst the virtual teams.

1.6 The Current Leadership Situation

It is clear that the COVID-19 pandemic accelerated the need for a virtual workplace and it is here to stay in some form or another. In a recent article published by Bloom (2021) the evidence suggests that roughly 70 percent of organisations including multinationals such as Apple, Google, and HSBC plan to carry out some form of hybrid working arrangements in the future. Furthermore, the increase in globalisation has resulted in more multinational global working virtual teams made up of talented individuals across the globe that are not only highly profitable but also contribute a significant amount of income to the global economy. The Fortune Global 500 (2019) stated that the world's 500 largest companies generated $32.7 trillion in the year 2018 and employed roughly 69.3 million people across 34 countries. The World Bank (2020) claimed that 90% of all businesses across the globe are small to medium and make up about 50% of employment. Therefore, we could argue that the need for high performing globalised virtual teams is a must for economic growth. With a likelihood of a growing virtual workforce, there are several challenges for managers who need to navigate individual and teams in a virtual workplace (Freeman, 2011). Effective virtual leadership is now critical to ensuring

organisations remain competitive. The challenge is that virtual leadership research is still in its infancy with several research studies only emerging in the past 20 years as the technology grows and provides opportunities for more virtual working. The need for understanding workplace behaviour, in particular how leaders and subordinates interact in a virtual environment, will become more prevalent. Limited research has identified leadership competencies or behaviours that contribute to effective virtual leadership. Few leadership models exist that specifically help understand what it takes to be an effective virtual leader (Louie, 2017). And furthermore, few studies have identified what virtual leadership should look like post a global pandemic. The present crisis requires leaders to respond effectively and quickly to challenges and to be able to address both business and employee concerns with many companies choosing to prioritise employee concerns over short term business concerns (Dey, 2021).

1.7 The Benefits and Challenges of Virtual Working

Most of the literature has used the term "teleworking" or "telecommuting" when referring to working from home. Telecommuting was first coined in 1972 by Jack Niles who worked on the development of, which was at the time, a complex communication system for NASA. During this time, he spent many hours away from the office and when asked, noted to others that he was "telecommuting" (King, 2020). Whilst these terms are still valid, the world of work has progressed significantly since 1972. We now have multiple technological and communication tools that allow us to work across multiple business streams away from the office. We are now able to remotely facilitate sales meetings, run team meetings, collaborate with others across the globe, facilitate trainings, conduct webinars, track performance and perform many other workplace functions. With this in mind, we have decided to opt for the more contemporary term "virtual working" because we believe this term more closely aligns to the world of work today. It is also important to note that virtual working does not necessarily mean working from home. As we move to a more globalized work force as well as hybrid working models, leaders can manage teams in various different office and home locations.

Whilst there is some research to suggest the employee benefits for virtual working, some of the research has identified mixed results in concluding whether virtual working is beneficial for employees. Anderson, Kaplan and Vega (2015) found that some employees may experience greater well-being from working from home as opposed to others who craved social interaction. Those that craved social interaction may be more prone to social isolation and feelings of loneliness. Eckardt, Endter, Giordano & Somers, (2019) highlighted the frequent use of virtual

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meetings as beneficial in many ways including being more efficient, and quicker to organise as there is no need to move, or travel to a specific location. Other research has also shown that virtual teams have been found to increase decision making processes, creativity and problem-solving ability due to a diverse range of cultural differences and abilities across the team (Glikson & Erez, 2013). Martin and MacDonnell (2012) conducted a thorough metanalysis and identified 32 correlations that highlighted positive outcomes between virtual working and variables including an increase in productivity, secure retention, strengthening organisational commitment, and improved performance within the organisation.

Many of the challenges of virtual working can be related to the lack of face-to-face interactions with co-workers, team members, supervisors and leaders (Kwon & Jeon, 2018). This results in implications for building relationships and establishing trust. Webster-Trotman (2010) found that a reduction in socio-emotional bonding is caused by a lack of connection between a leader and his/her subordinate in a virtual environment. This was found to negatively impact workplace satisfaction as well as subordinate engagement, ultimately resulting in higher turnover intentions from those that work virtually. Similarly, Davis & Cates (2013) also found a relationship between a lack of socio-economic bonding leading to feelings of workplace isolation and lower engagement. McGregor (2006) suggested that an increase in workplace isolation may lead to resistance, antagonism, and uncooperative behaviour. And Harris (2003) found that feelings of social isolation may lead to a decrease in cognitive problem-solving ability affecting one's capacity to solve day to day tasks and deal with challenges ultimately impacting performance. Collins, Hislop & Cartwright (2016), identified that over time the contact that virtual workers had with office-based friends and colleagues would naturally diminish and that relationships did not develop without consistent face-to-face contact. They also found that the nature of the work carried out by virtual employees encouraged individualism, in that whilst the virtual workers were expected to complete as much work as possible, they did not rely on each other to achieve their work objectives, without the need to collaborate and check in with others.

Harris (2003) highlighted a case study - BC Drinks was one of the early adopters of home-based virtual working and did this specifically with their sales teams. Results indicated a decrease of leadership support which ultimately led to a decrease in trust in their employer. The results also showed that the team members found their leaders to be lacking in demonstrating care and concern as they transitioned to working from home. One participant described the situation as a perceived feeling of "like it, lump it or leave", which created a

sense of abandonment. Other participants noted feelings of isolation and problems adjusting to the technology to perform day to day work tasks. Furthermore, the ability to work without interruption or distraction was dependent on the individuals home situation i.e., whether team members had a young family to tend to during the day. In summary, 80 percent of the participants noted that their level of commitment to the organisation had reduced. Other reported issues included challenges in the speed of problem solving and the lack of opportunities to discuss wider business imperatives resulting in a reduction of understanding on what was going on across the different business units. Over time, the opportunities to communicate with line managers reduced to three or four meetings every quarter and the meetings, whilst being more formal and having a specific agenda, resulted in a lack of opportunity for team members to "catch up" and engage in those informal conversations which were ideintifed as important for building social relationships. Some participants reported feeling "invisible to the company" and noted that this resulted in a reduction in speed to resolve challenges. Furthermore, the direction for when it was acceptable to say "I am not at work" weren't very clear and as a consequence, the working day became boundaryless. Interestingly, a number of the participants advocated for their managers to pay closer attention to their hours worked as they felt their "invisibility" had led managers to be unaware of the genuine time and effort they spent working (Harris, 2003).

Research has also found that virtual working may impact employees' perceived chances for promotion. For example, Webster-Trotman (2010), found that virtual workers felt that because working virtually reduces opportunities for face-to-face communications with senior management, their chances for promotion were adversely affected, and they felt that those who were situated in the office had a higher chance of promotion. This ultimately led to a reluctance for these participants to want to work remotely. It has been found that those who are regularly in the office do have a greater opportunity to engage in face-to-face interactions and build relationships that stimulate more positive and constructive communication ultimately building stronger relationships. Halford (2005) found that employees who worked two to three days per week from home and the remaining days at the traditional centralised office felt that they were comfortable with working at home because their in-office days met their needs for face-to-face interactions that were missed whilst working from home. Therefore, a hybrid working environment may be more suitable in the future as this provides opportunities for employees to balance both office and home working.

1.8 Exploring the Gap in Virtual Leadership Research

Whilst virtual leadership research has grown in the past 20 years, most research has been conducted in laboratory experiments, through case studies or through literature reviews. Furthermore, in a virtual and non-virtual environment, very little research has considered the importance of understanding perceptions of effective leadership from the subjective experiences of a subordinate. Given the challenges and nuances that a virtual workplace brings to the leadership landscape, this then becomes even more important. Many, 'mainstream' studies in their quest to understand effective leadership provide a universal list of generic leadership qualities or competencies. In doing so, these studies have a propensity to separate leaders from followers without recognizing that one can't exist without the other. As well as separate the conditions and consequences of leadership qualities that are impacted by environment and context. They also tend to rely heavily on quantitative research methods that often make universal assumptions about the causal relationships between specific isolated 'independent' and 'dependent' variables in leadership. Thus, failing to address the interactional and complexities of leadership and organisational dynamics (Collinson and Tourish, 2015).

Most virtual leadership literature has been conducted pre-pandemic where in many cases, virtual working may have been introduced into the organisation but may not have been as prominent as it is today as we navigate out of the pandemic. In addition, much of the early research on virtual leadership was conducted in the early 2000's where researchers had limited understanding of virtual working and limited technology capabilities that we have today. Now that virtual working has become a much more common part of organisations' and employees' day to day lives, it is important to understand the real time effects of this virtual working. Whilst we do not know what the long-term effects of this sudden transition might be, it is important for leaders to understand how they should lead during and after the pandemic. Many studies have also not taken into the account the technological advancements that have occurred in the last 20 or so years. In the early 2000's videoconferencing was seen as a luxury, with only the large corporates having access to this technology. Phone calls and emails were very much the norm for the everyday business. Whereas now, tools that allow for instant messaging and videoconferencing are the norm. The impacts of social networking and instant messaging over the last 10 or so years have also challenged the way we view and understand virtual leadership. Today, employees and leaders have many tools at their disposal and what we don't yet know is how leaders can effectively use the available tools to effectively lead in a virtual environment.

1.8 The Importance of The Current Research

The acronym VUCA stands for Volatility, Uncertainty, Complexity and Ambiguity. It has been used extensively by business circles to represent the rapidly and constantly changing business environment that we live in today. This phenomenon is not new – originally coined during the era of the Cold War, however, it is now as prevalent as ever as we continue to navigate the ambiguities and uncertainties of the future (Coopersmith, 2021). Nangia & Mohsin (2020) state that the prime goal for any organisation in this current COVID-19 climate should be survival, well-being and effective leadership of the human workforce. However, the challenge is not knowing what this will look like post-pandemic. Whilst many organisations have adapted and have the resources to work remotely, we still know very little about what makes an effective virtual leader in a pandemic or post pandemic climate where virtual working becomes standardised in organisational practice. Whilst there has been a lot of research on leadership in a face-to-face work environment as well as some research in the virtual environment, many of these studies are conducted in a lab environment and limited research in the pandemic context has considered key behaviours and attributes that contribute to developing an effective virtual leader in today's workplace context (Freeman, 2017).

Chapter 2: Methodology

2.1 Aim

The aim of this thesis is to contribute to the leadership literature by understanding subordinate/followers perceptions of effective and ineffective virtual leadership. Leadership is often studied through the subjective understanding of leaders with less research directly studying the perceptions of what effective leadership looks like through the experiences of subordinates. In a virtual environment, this becomes more important as leaders do not have direct oversight over their subordinates. Often measures of effective leadership include transactional outcomes such as performance outputs, turnover, engagement or the bottom line. However, there is more to effective leadership and some aspects cannot be measured directly, particularly in a virtual environment where leadership behaviour is not always physically visible. Halpin (1956) stated that effective leadership behaviour that draws followers to a particular leadership style should focus on observed behaviour rather than the theorised or proposed outcomes of this behaviour. Many leadership studies have solely focused on the behaviour of the leader without taking into account other relevant components of leadership including the follower, situation and context. Essentially, leadership cannot exist without the follower and this is often overlooked (Rost, 1991). Highlighting this issue, Zaccaro and Klimoski (2001) states that most theories of organisational leadership are for the most part context free and many are also laboratory studies that do not consider the incidents that impact and moderate effective and ineffective leadership in the workplace. Grint (2000) goes further to describe the leadership literature as being theoretically lacking because it mostly excludes followers when explaining what defines leadership. Grint (2005) states that "it only requires the good follower to do nothing for leadership to fail" (p. 133) and that it is the followers who teach leadership to leaders. Lord, Brown, and Frieberg (1999) asserted, "the follower remains an unexplored source of variance in understanding leadership processes" (p. 167). Therefore, we can conclude that a challenge in the leadership literature is that effective leadership is defined by the leaders rather than considering the preferences of followers. In many cases it is seen that effective or ineffective leadership falls solely on the shoulders of leaders and how they manage their followers without taking into account the follower's perspective (Bolden, 2011).

In this study, we aim to identify effective or ineffective leader behaviours which can have a direct influence on followers through the perceptions of followers. By using a qualitative

analysis, the aim is to identify qualities that may not always be tangible and easily measured through quantitative research and thus, searching for 'deeper meaning'. The hope is that the insights gained from the research can be used to inform future studies on virtual leadership.

2.2 Research Approach

We decided to use a qualitative methodological approach in this study since it fulfils the aim of exploring experiences of virtual leadership through the subjective understandings of subordinates. Creswell (1994) defines qualitative research as "...an inquiry process of understanding a social or human problem based on building a complex, holistic picture, formed with words, reporting detailed views of participants, and conducted in a natural setting" (p. 1). Yılmaz (2013) adds that qualitative research as "an emergent, inductive, interpretive and naturalistic approach to the study of people, cases, phenomena, social situations and processes in their natural settings in order to reveal in descriptive terms the meanings that people attach to their experiences of the world" (p. 312). Leadership research for the most part has been dominated by quantitative studies and there is a growing need for qualitative methods to provide deeper conceptualization of issues, topics and phenomena that are abstract and that cannot be measured through quantitative means (Lanka, Lanka, Rostron & Singh, 2021).

The qualitative method used for data collection was critical incidents interviews. Flanagan (1954) defined a critical incident as "any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act" (p.1). The value in the critical incidents interview approach is that they concentrate on events that occur in the field through the experiences of the participant as opposed to hypothetical situations. During the interview, the participants were asked to describe both a positive and negative incident involving their leader's behaviour in a virtual environment and then prompted to elaborate on the leadership behaviours involved, as well as outline the impact this event had on them either positively or negatively. This, therefore, resulted in the behavioural data that was more likely to align to real life leadership behaviours. Furthermore, the inherent inductive properties of this approach means that the participants were not limited by a particular set of questions based on a hypothetical framework, but rather the interviews were an explorative process which allowed the richness of the data to emerge organically (Bott and Tourish, 2016).

During the interviews, it was explained to each participant that for an incident to be critical, it must occur in a situation where the leadership behaviour was observable to the participants

own subjective experience, and where the consequences of the behaviour had lasting impacts. A semi-structured interview approach was used, which allowed open-ended discussions with participants. In line with inductive analysis theory, Bradley (1992) states that "…an open-ended approach is essential for the critical incident technique because data has to be categorised inductively, without reference to pre-existing theories" (p. 98). Whilst this is a useful approach, the challenge lies in the researcher leading the interview in a certain way in line with their own personal bias. Therefore, in order to avoid contamination, it was important that throughout the interview, the amount of engagement along with follow up questions were monitored in order to reduce any unnecessary response bias, whilst still being able to elicit meaningful participant dialogue through relevant probing questions (Bott and Tourish, 2016). It has been previously found that if the participant is not prompted with the type of incident to discuss, they are more likely to recall negative incidents (Dasborough, 2006; Bott & Tourish, 2016). With this in mind and given that we wanted to elicit both positive and negative incidents, we took a cautious approach to the research and explicitly encouraged the participants to recall a positive incident first followed by a negative incident.

Whilst the critical incidents method was useful, this approach can bring some limitations and in particular, the limitations of participant recall. To overcome this limitation, we asked participants to recall recent events that occurred approximately within one year. At the time of this research, all the participants had the opportunity to work remotely within the last year (given the lockdowns caused by the COVID-19 pandemic) and therefore, had recent incidents to discuss. Whilst we are aware that memories tend to decay rapidly (Hardt, Nader & Nadel, 2013), we were less concerned with the accuracy of the events but rather the overall significance that the participants attributed to these events both practically and theoretically. By using a semi-structured interview with the opportunity for probing questions, it allowed for opportunities to extract more clearly the issues that various participants found as central to their experiences of either positive or negative leadership (Bott and Tourish, 2016). See appendix A for a copy of the interview schedule.

2.3 Participants

Bott and Tourish (2016) state that when using a critical incidents approach, the sample size should be based on the number of incidents, not the number of participants. This was backed up by Sharoff (2008) who state that with qualitatively oriented research, there is less of an emphasis on obtaining a large sample size but rather the quality and richness of the data. In a review of studies that undertook qualitative interviews, De Hoogh, Den Hartog, Kooperman,

Thierry, Van den Berg & Wilderom (2005) concluded that qualitive methods are comfortable with the small sample sizes due to the richness of the data and the practical implications of conducting, transcribing and coding the data which in many cases can be considerable if a large sample were used. Finding a sample of participants who engaged in virtual working prior to the COVID-19 pandemic may have been challenging however, given that this research took place during the pandemic, all of the participants were exposed to virtual working through the government mandated lockdowns. As such, a convenience sample was used, and the criteria for participating in the research were that participants had worked remotely and could discuss positive and negative leadership incidents or events that had occurred with their leader in a virtual environment. Using contacts supplied by a local Organisational Psychology company, we sent invitations via email to several different organisations across various industries. The selection criteria were not limited by the type of industry or the company size, gender or culture. Ten eligible participants responded and took part in this study.

2.4 Data Analysis

The ten interviews were recorded and transcribed for analysis. All transcripts were checked for accuracy against the interview audio recordings and the participants also had the opportunity to check for accuracy and correct the transcript if necessary. An inductive thematic analysis was then used to analyse the data. This is an approach for identifying, analysing, organising, describing, and reporting themes found within a specific data set (Braun & Clarke, 2006). The themes were identified organically through strong links to the data, and they were not restricted to the boundaries of the research question. This approach was beneficial because the themes identified did not fit into a pre-existing coding framework. The aim was to build theory rather than test it against a specific hypothesis. It should be noted here that our initial process for collection and analysis was to draw on Grounded Research Theory, in that we would engage in a continuous cyclical iterative process between data collection and data analysis to cross reference and validate the themes found. However, given the limitations of time, we opted for a systematic process in that we collected the data first, before the analysis began.

Once the transcripts were developed, we began the coding process. We used an open and systematic process to the coding, and made sure to take observational notes during the data collection and analysis phases. This was to ensure that personal feelings and assumptions were recorded which contributed to the justification for final themes. Through the coding process we analysed the data at both a high level reviewing the surface semantic meaning as well as the underlying latent meanings to the themes identified. We followed Braun and Clarke's

(2014) recommendations that themes do not simply emerge from the data. Instead, an active and reflexive approach was taken which involved a number of interpretative processes in order to generate initial codes and develop the final themes. A summary of the steps taken in this analysis process are provided below:

1. Gaining familiarity with the data: through reading the transcribed data numerous times, and ensuring it was an active representation of the interview, initial analytical high level observations of the data were recorded using the NVivo online coding software made available through Massey University.

2. Generating initial codes: By being thorough and systematic in the approach to coding and distinguishing features in the data set, we were able to create a coding framework. During this initial phase, the process was to engage in open coding whilst taking steps to define the data set into categories. The initial phase included clustering the data set into effective and ineffective leadership outcomes. We then subsequently added codes under each key category. In some instances where codes may have clustered under both effective and ineffective leadership, they were added to both.

3. Searching for themes: Once the data set were defined into these two key categories, we began the process of collating the codes and then generating a set of themes. This required a thorough review process where codes were examined and then re-examined multiple times to cluster specific codes into key themes.

4. Review: By checking that the coded data fit with the developed themes and then reviewing the themes against the full original data set, this process ensured that the themes captured the most relevant features of the data. Upon revising the data, it was important to validate the data by questioning the analysis. Examples of the critical questions asked include: "what does this theme mean and what are the assumptions that support it?" along with "what are the implications of this theme?", "what conditions are likely to have given rise to it?" and "why have the participants talked about this incident in this particular way (as opposed to other ways)?". It was important to think critically about the data and continue the process of questioning the assumptions made in order to find deeper meaning.

5. Naming the themes: The final stage involved defining the themes along with a comprehensive narrative of each theme, the scope of the themes and the boundaries that classify each theme. During this phase, we also reviewed how specific themes may relate to each other. High frequency themes were explored in-depth, however,

occasional responses were not ignored as they were used to articulate an issue that other participants had not identified. A thematic map was developed to represent the identification of each code and relationships between them (see results section).

Chapter 3: Results

The analysis involved sorting the codes into effective and ineffective leadership clusters. We then placed the codes into the tables below to analyse the number of references for each code. Through this analyse, we found that some codes could be identified across both effective and ineffective leadership clusters. The initial codes and frequencies are provided in the tables 1 and 2 below.

Effective Leadership			
Code	**Number of Coding References**	**Code**	**Number of Coding References**
Presence	12	Authenticity	11
Proactive Presence (Checking-In)	10	Task-Based Leadership	10
Using Technology Efficiently	9	Flexible Working	8
Leader Empathy	8	Virtual Presence (seeing manager via video)	7
Using Technology Efficiently	7	Collaboration	6
Efficiency	6	Facilitating Regular Catch Ups or Check-Ins	6
Authentic Leadership	5	Expectations	5
Teamwork	5	Approachability	4
Business Strategy	4	Clear and Transparent	4
Direction at a task level	4	Easily Contactable	4
Leader Inclusion	4	Leader Support	4
Leader Trust	4	Using Videoconferencing effectively	4
Worklife Balance	4	Ad Hoc Presence	3
Direction at a task level	3	eLeadership	3
Facilitating Team Meetings	3	Responsive	3
Adaptability	2	Collaborative Leadership	2
Facilitating Meetings	2	Informal Connection	2
Involement in the process	2	Language Used	2
Leader Experience Working Remotely	2	Proactive despite technology challenges	2
Composed during Lockdown	1	Follow Through on Actions	1
In the moment leadership	1	Leader-Subordinate Collaboration	1
Proactive Leadership	1	Regular Communication	1

Table 1 provides an overview of the initial codes and their coding references placed in the effective leadership cluster. The codes in the table are ranked from highest frequency to lowest frequency referenced across the ten interview transcripts.

Ineffective Leadership			
Code	**Number of Coding References**	**Code**	**Number of Coding References**
Communication	10	Clarity of Purpose	8
Disconnection	7	Performance Management	7
Communicating the strategy	6	Lack of Presence	6
Lack of clarity	5	Impacts of not being proactive and checking in	4
Lack of Authenticity	4	Transactional Leadership	4
Impacts of trust	3	Leader-Subordinate Relationship	3
Checking in as part of process rather then care	2	Collaborative Leadership	2
Consistent Communication	2	Lack of Communication	2
Lack of Physical Presence	2	Leader Expectations of working hours	2
Leader not setting boundaries for work	2	No clarity on strategy beyond the initial team and immediate manager	2
No Consistent Communication	2	No Consultation	2
No Direction at a task level	2	Putting deliverables in place	2
Reaction to Crisis	2	Strategy beyond initial team and manager	2
Unstructured Leadership	2	Avoidance Leadership	1
Collaboration impacted by virtual	1	Collaborative vs direct decision making - following through on idea	1
Communicating Future Direction	1	Communicating when Manager will be in the office	1
Hierarchy	1	Lack of regular catch ups - not organising these	1
Leader involving wider team in the process	1	No plan	1
Not Following Through on Actions	1	Planned and organised	1
Reactive Communication	1	Technology impacting Authenticity	1
Unaware of wider business strategy beyond immediate team	1	Unstructured Leadership	1
Virtual emphasising hierarchy	1	Virtual impacting approachability	1
Who to approach in virtual environment	1		

Table 2 indicates the initial codes and their coding references placed into the ineffective leadership cluster. The codes in the table are ranked from highest frequency to lowest frequency referenced across the ten interview transcripts.

Once we had developed our initial codes, we then started to identify relationships in order to form themes. Through an extensive review of the codes, and in line with the research question,

we were then able to form one high level theme and two sub-themes followed by multiple supplementary themes. These themes are outlined in figure 1 below.
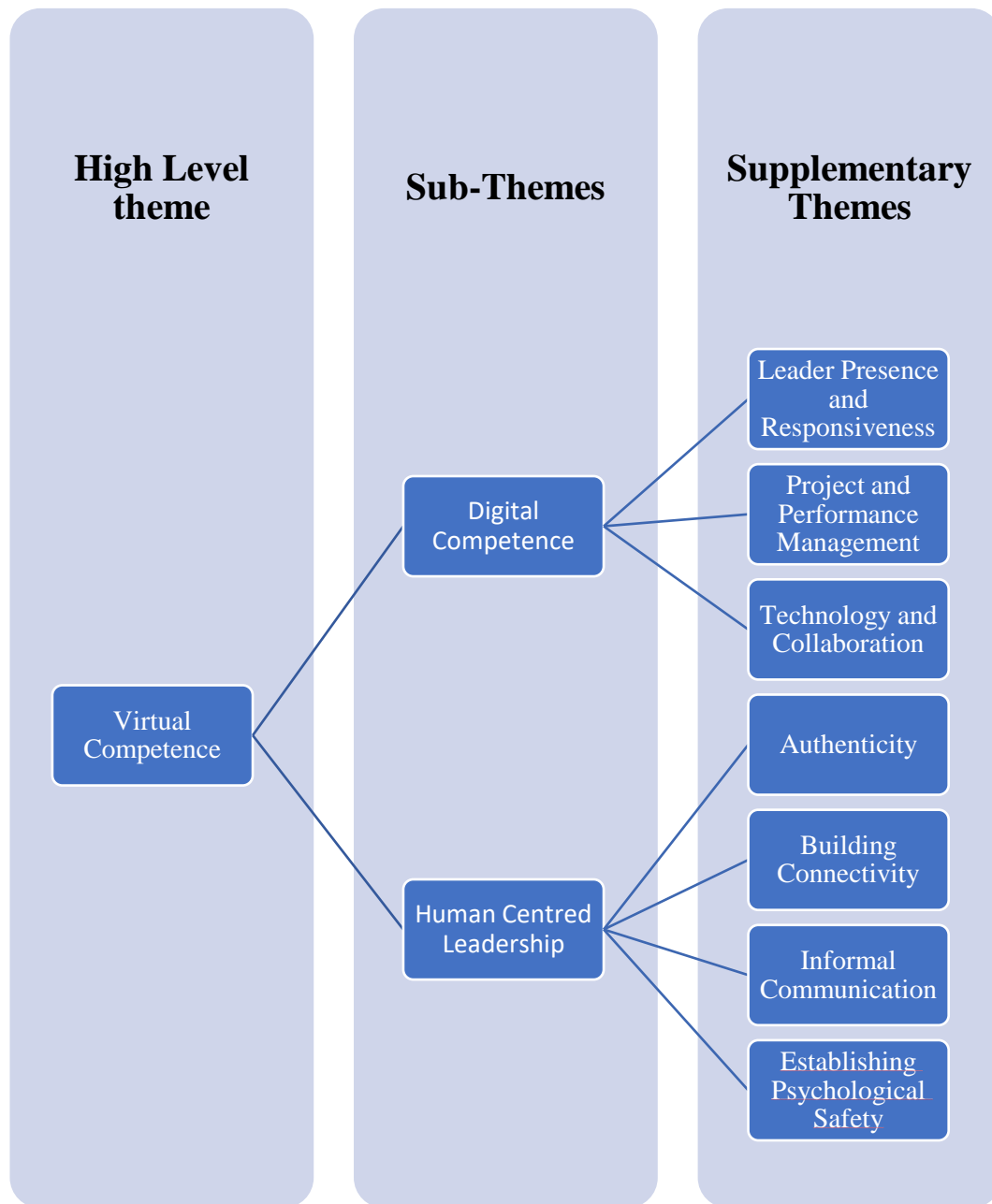

Figure 1 provides a detailed outline of the hierarchical framework developed. The high-level theme describes the overarching theme found (Virtual Competence). The two sub-level themes can be categorised as mid-level, and details the specific themes associated with Virtual Competence. The supplementary themes can be described as third level and further specifies the attributes associated to each sub-theme.

It is proposed that leaders require a strong sense of virtual competence in a virtual environment. Upon reviewing the data, two clear sub-themes emerged to make up the theme of Virtual Competence. The first sub-theme identified is Digital Competence which can be described as leaders understanding how to use the different technologies available to them in order to achieve positive leadership outcomes. The second sub-theme is Human Centered Leadership

and this can be defined as leaders having a deeper understanding of their subordinate's home situation, and being flexible in how they accommodate the needs of these different situations, as well as creating a psychologically safe environment where both leaders and their followers can feel comfortable being their authentic selves and expressing the personal challenges that they may be experiencing whilst working remotely.

In addition to the sub-themes, we identified a number of supplementary themes. A summary of the sub-themes and supplementary themes is identified in Figure 1 and the results are provided in more detail in the next section.

Sub Theme 1: Digital Competence

Leaders may be have the ability to use technology however, Digital Competence refers to the ability to understand context, and to know what ICT tool is required to lead in the most effective manner and get the best outcomes. Ineffective leadership was associated with leaders who weren't able to use technology in a strategic manner, often adopting the wrong technology at the wrong time.

Supplementary Theme 1: Leader Presence and Responsiveness

Leaders had a range of tools available to help them be available and responsive to staff. ICT tools included Microsoft Teams, Zoom as well as email, text messages and phone contact. Leader competence in using these tools was positively regarded by participants, for example knowing how to use notifications to ensure awareness of incoming messages, knowing how to send an instant message back, and having the technological savviness to juggle priorities in order to switch between different tasks and platforms to respond promptly to immediate requests when required.

> I can recall having some difficulties with a new CRM system that we used for our client database and we've recently gotten it and we've both done the training, but as we all know, you have 80% or 70% focus on your training, so there was a part where I was stuck in the CRM system and there was something that I had to urgently activate. It was really great because I literally reached out to my manager, and we went on Teams. I shared my screen, and she was quickly able to show me the procedure and we were able to alleviate and fix the problem (Participant 2)

Leaders who were readily available and who had the technological means to respond to queries in the moment were perceived positively. Participants spoke about the benefits of using technology so that leaders were available for quick responses.

> That presence doesn't have to be there in person it can be virtual as well and you know, if I needed to send an instant message as I was working through and I wasn't sure about the wording or something they were right there on Teams (Participant 5).

> …it was better than going to their desk and interrupting and standing there and waiting for their assistance whilst they might be busy working on something else, so it was actually just a quick Teams message. The worst is when you've got to knock on the door and wait and then wonder if you can come into the office and there is generally somebody else interrupting (Participant 2).

> …well you felt a bit isolated in the remote working environment compared to face to face and you did feel a bit autonomous and on your own. Uh, because you know they're not right there next to you physically, but at the same time too I think virtual presence and physical presence it was swapped out quite effectively in that case (Participant 5)

In addition, whilst leaders had the technology to respond instantly to messages, it was viewed favourably if leaders were proactive in doing so as opposed to waiting a few days before responding.

> I put that down to him being very busy and so if anything as an example, if I was to send a question via text message or via email, I probably won't get a response for a few days unless it was screaming urgent. Whereas, if I compared it to my current manager, she's always available and will just say yes or no. Or just give whatever the response is, whether it will be, I will definitely hear back on the same day. Whereas if I look at my previous manager, I won't hear back if anything, maybe for the next few days (Participant 10)

Leaders also needed to communicate their availability, for example when they would be in the office, when they would be working from home and when they would be available to respond to urgent queries.

> …once, where we kind of came in and we were like, well, we need somebody, we actually we need the director to sign this off because she hadn't delegated authority for it, but she wasn't there and this happened more than once where we were just like "oh where is our manager, does anyone know where she is?" and I feel like and this is maybe just my personal opinion as well, but when you're in a leadership role like that, particularly in a people and culture team or an HR team, you need to be available, or at least like you know, your people need to know where you are and we didn't have that (Participant 7)

Leaders also needed to be able to manage the scheduling of their meetings, with appropriate notifications and reminders.

> The other day, she forgot we had a team meeting, but because of the functionality in Microsoft Teams you just press start right and she was like, oh. And accepted the meeting and she was in her Pjs. And that doesn't mean that she can't still give us what she needs in that moment. It's just what was happening for her in that moment (Participant 9).

The participants did not, however, seem to view this type of incident as unprofessional or reflecting poorly on the leader, but as a relatively trivial situation enabled by the functionality in the Teams software.

Supplementary Theme 2: Project and Performance Management

Participants were positive about leaders who could effectively use technology to track projects and workload. They recognised that one of the challenges for leaders in a virtual environment is project managing and fostering facilitation while keeping team members accountable through the tracking of work.

> And so, what we were doing were we end up doing pretty much like daily standup meetings. Uhm, so talking about all the things that we've been doing or working on currently and things that we will be working on over the next few days as well (Participant 7).

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It was basically like if you're running a project. It was like having daily standup if you were working on a project for anything really (Participant 7).

Participants expressed some frustration when leaders were not able to effectively manage accountabilities.

I think the leader could have done a better job at sort of keeping them honest and keeping them on track. But the nature of the environment was like you, do what you can when you're working from home type thing, I think, the team member wasn't pulling their weight as much. So yeah, they could have uhm I guess had better oversight or kept our team member a bit more honest about the work that they're doing or weren't doing in this case (Participant 5).

Effective project management meant that leaders had to adapt their communication styles, as formerly-useful methods were no longer available to them:

She's the kind of person who is like if there's a whiteboard in the room she'll go up and start drawing on it, and she couldn't do that with using Zoom or with Teams. And so, she couldn't do that and so it was all written in like a document kind of thing (Participant 7).

Leaders who were able to use the technology available to them to effectively project manage, and track team performance were perceived positively. This also encouraged team members to support each other with workload when needed.

Because there was a team of about seven of us, six or seven of us, and so we had spreadsheets of exactly what we'd be doing, so we'd be able to track. We knew what was going on with other people and identify where we could support them and where they could support us… (Participant 7).

Shared documents used for project management helped keep others involved and accountable. These were seen as important when leaders did not have face-to-face visibility and could not casually check-in with staff in an open office environment. Goal setting, monitoring performance and providing feedback became particularly important when leaders were not physically present to manage performance, keep subordinates accountable and effectively supervise staff.

Setting some firm deliverable outcomes and goals and putting it in writing using the tools that we have at our disposal, such as our database or CRM and KPI tools that we have in order to actually measure that person's delivery and performance rather than having it be so anecdotal and just relying on that the individual being managed to just believe everything that they're saying (Participant 4).

Where leaders did not make efforts to visibly manage performance in a virtual environment, this was seen negatively by participants.

I think that that the particular situation is from me observing it could be managed differently, like there are probably some key performance related measures that my manager could put in place for the peer to quickly identify what some of the issues are, and we've tried to do that, but my manager is not very structured person and it's taking quite a lot of providing feedback and examples of where this person is not really doing what they're supposed to do, for my manager to actually do anything (Participant 4).

Virtual performance management was, however, seen as creating a risk of micro-management. This could create a challenging dynamic, as leaders can use technology to measure performance and keep track of workload at an individual level, but this needed to be balanced with an element of trust in subordinates to do their job.

She you know, trusted me throughout the process, and without saying it pretty much said I've given you the task and I trust you, to you know, to do it in your own time today, so I could, I guess, you know, start early and finish early sort of thing or start late and finish late if I wanted to so there was that transparency as well, and the trust that she had in me knowing that I will get my tasks done (Participant 1).

That was really good to know that you know, a leader of that caliber is putting all the trust in you. Though, I hadn't really proven anything to her yet. You know it was a really good time to know that's the sort of company and leadership that I'm going to be getting myself into (Participant 1).

Participants identified several different ways performance could be managed and recognised that some were not practical. For example, checking-in daily via video conferencing could add

to a busy schedule for both subordinates and leaders. Appropriate means of performance management also depended on the role and level of supervision. For example, some roles are highly structured and require supervision and oversight whereas other roles are more autonomous and unstructured where performance measures would be difficult to put in place.

> the roles themselves were relatively small, you know there wasn't, like if you think about how a role gets sized. Yeah, the role itself didn't have that much job autonomy. It was very transactional. It was pretty much come pick up the phone, call a customer, tell them about stuff, and then put down the phone, pick up the phone and call another customer, tell them about the same stuff, put down the phone and you just keep doing that the entire day. It would drive me crazy, which was great I wasn't in that job. But if you compare that to like the roles that we had in HR where there was a lot more autonomy and that we ourselves had a lot more responsibility to go out and just do things. We were just told this is where we need to go, go out, do it and come back to me in a week or so and maybe that's why the manager had that sort of perception that these people aren't capable of working from home and being productive. And maybe whereas as our manager knew that we were capable of doing it just because of the level of the roles (Participant 7).

It was highlighted from the participants that manager check-ins were important for both performance management and a project management perspective. This also allowed for additional opportunities for leaders to share any relevant information relating to wider projects as well as providing opportunities for subordinates to ask questions and get reassurance that they are still on track.

> At that time it was mainly through Skype and then over that time we moved from Skype to, Microsoft Teams, but like I said my first couple of weeks and she'd probably check-in, I don't know, twice or three times a day just to make sure I've got my handover done properly and I've got everything that I need. But once I understood everything we would probably just catch up once a week. But she was pretty responsive and if I had any questions she always said reach out to me on my number and then we can go through it (Participant 1).

It was noted by one participant the consequences of not checking-in regularly with their team members to see if they were up to date with their work outputs could result in a decrease in productivity and performance.

> Uhm, so yeah like probably could have kept tabs a bit better but yeah, it was a unique situation. Unprecedented, I think was the word thrown around a few too many times back then. So yeah, like it was a time where anything went but at the same time to probably could have got some work out of the guy too (Participant 4).

It was also viewed as a positive for leaders to schedule in regular daily catchups so that subordinates could communicate to their leader their workload for the day, and discuss whether they were able to meet the required deadlines or whether they needed support. It also gave the leader an opportunity to discuss their own workload for the day.

> If I was struggling with my workload that day, you know it was easy enough at our next meeting, I could just tell her, "hey, I probably won't be able to commit to doing this or that today" and so we had an opportunity every day to be able to reiterate what our priorities were and that was happening during the daily meeting at 10:00 o'clock and in those meetings as well, she would just reiterate to us also what her work priorities were for that day with our team so there was a reciprocated type of environment, if that makes sense (Participant 10).

Formal check ins as part of a procedural mandatory process were associated with negative leadership with one respondent suggesting that it felt "numberish". Given that at the time, subordinates were fearing for their jobs through restructuring, it was also perceived as a lack of authentic care and support.

> I just felt it was a little bit numberish you know, just calling because we all knew okay, where are you on the list to get the phone call next. And it was the only time that we had a call from our GM (Participant 6).

While leaders may have wanted to do the right thing by checking in with staff, because this was understood to be a mandatory and procedural process, it was perceived as unauthentic. In contrast, leaders who balanced checking in at a task and project management level with checking in about staff well-being were seen positively.

> I just felt because the conversation happened it kind of showed that we could work virtually, even though this wasn't the ideal situation and there was a

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check-in on my well-being. You know how you feeling? you feeling better? And I was feeling a bit uncertain because working from home it wasn't planned. It was because I was sick and I was kind of already, I suppose, a little bit unsure about whether or not I was hitting all the right things and still keeping him happy. There's no body language to pick up on to know that things are okay when virtual and it was just a nice really reassuring conversation that things are going good. It was just a really good example of a check-in from both the task perspective and moving things forward, but also personal appreciation and a well-being being perspective (Participant 3).

Supplementary Theme 3: Technology and Collaboration.

Technology also supported subordinate involvement in real time project work, and participants viewed this positively. Utilizing screen share for real time information sharing and decision-making was perceived as an efficient way to collaborate on specific projects or tasks.

> We were able to utilise things like the screen share which made a big difference. It was as though we were sitting in the same room as opposed to just my manager asking me, can you do this and then I'm like I don't know what to do …It was very much working together and so it made me feel as though I was still very much part of the team and still a senior member of the team (Participant 6)

Collaborating via screen share meant leaders and team members could work on the same document simultaneously and discussions around the task could be had instantaneously. Questions or concerns could be discussed and solved immediately , and the direction of the project could be communicated clearly rather than being lost through the handover of work.

> the virtual meeting was really positive because we actually still achieved what we would have achieved face to face. And we talked about some projects that I had going on and some of the challenges I was facing there. I was actually able to share my screen and talk through a couple of things that I was having challenges with at that particular moment in time and he was able to provide real time advice (Participant 3)

Real-time collaboration could also be perceived as leaders making an effort to involve and value the subordinate's expertise in the process.

yeah involving me in the process and what it meant is that we could then go into our afternoon virtual meeting with the wider team, knowing that her and I were already on the same page. And, you know, ultimately she would update them on what was going on, 'cause she knew, you know because she was the manager and so she would update what was going on. But I knew that from my side there was nothing that we hadn't already discussed together, and it also meant that I kind of knew what was going on. We were a united front coming to the rest of the team (Participant 6)

The screen share was viewed as positive because it allowed an opportunity for the leader and subordinate to discuss the project in detail and gather all the information. What was perceived negatively if leaders communicated a task via a technological medium without sharing all the information and how the task fit into the wider project. Without regular communication through check-ins or "stand ups" virtual communication may become very transactional as it doesn't give leaders an opportunity to explain the wider context of the "why" the work needs to be completed.

I would be sitting at my table typing away at something and then I'd get a phone call or a teams message or email or something saying "hey, can you do this" and like because we weren't having any stand ups, I had no idea what the context was like, I knew what my little piece was, but I didn't know what that little jigsaw piece was in the wider puzzle and look, maybe that's because of things that I was unaware of might have been moving quickly, but I think the, well I was under the impression anyway, that we were all senior enough to be sort of fed that information (Participant 7)

Sub-Theme 2: Human Centered Leadership

The second sub theme identified is the need for leaders to manage interpersonal relationships in a virtual environment where interactions can often be transactional. It was seen as important for leaders to still maintain the human elements of leadership through demonstrating empathy, being genuine and authentic and communicating in a way that created an environment where subordinates felt comfortable speaking up and discussing their challenges.

Supplementary Theme 1: Authenticity

Some of the participants responded positively to leaders who were open and honest about their personal circumstances rather than putting up a 'façade'. In a COVID-19 Lockdown induced work environment, there may have been pressure on leaders to appear professional and "act" like they weren't experiencing the same concerns and challenges as their subordinates. However, leaders who could be their authentic selves by being open to sharing their personal home situations, and their own challenges were perceived positively. For example, by leaders turning their camera on during virtual interactions and allowing family members to interrupt them, creating a less formal environment.

> I think also seeing that you know, half the phone call or half the video calls we were doing, you know her son would come in and want a sandwich and things like that um also just I guess made me admire her more like I know that I always knew that she was a mum, but it's one of those things so just the seeing how she was with her son and that you know and she was basically how she is with her son is how she is with us. Figure it out yourself. You'll be fine, I got you kinda way. Yeah, so that helped as well. I think seeing her as a real person but also seeing her in a different type of leadership role because being a parent is being a different type of leader and so yeah, so that was quite good as well (Participant 6).

Demonstrating authenticity can be challenging in a virtual environment as interactions through ICT's often appear formal and professional. Therefore, it was perceived positively for leaders to attempt to remove this layer of formality by communicating openly and honestly and using informal language.

> I think it's language, you know like it's yeah, just. I've seen some leaders you know, have a bit of a facade, and they're always on you know. Like the other day, we had quite a formal team planning session in the diary and about an hour beforehand, our leader messaged and said - "I've got to be really honest with you all, I would rather be honest with you, and I want to cancel this meeting", she said - "I've been up all night, my son's not well. I want to give this a good go". And you know, we were all okay with that, she said – "I'm so sorry that I know this will play around with the calendars" and stuff like that but it's just that honesty that authenticity that transparency and it wasn't

"I'm going to take half day sick leave", it was you know, "guys, I've been up

all night, I'm not my best self" (Participant 9)

When leaders could be open with their subordinates, it could allow subordinates to do the same.

The biggest thing that comes to mind for me is that it tells me that it's okay

for me to be me as well. You know, like if I'm having an off day, that's okay

as well and I don't have to, you know, be someone that I'm not. I just am who

I am and that's okay (Participant 9).

Some participants highlighted the value of their leaders making efforts to communicate via videoconferencing as opposed to over the phone. This was viewed favourably as these interactions provided opportunities for subordinates to connect with their leader on a more personal level. In addition, these interactions allowed for subordinates to read facial expression and body language which helped to provide context to the message being delivered verbally. This also meant that more complicated information could be communicated and understood more clearly.

I knew that she didn't like video and you know she would much prefer to just

do a phone call or just do audio only, but as I said, she knew that I was living

on my own, and I think she also knew that being able to see each other did

actually make a big difference when we were talking about something that

was quite complicated… if you're on the phone, you don't know if that "oh

God" is because she is frustrated with me or frustrated at the situation, you

know, and that can be one of the things on the phone whereas with video you

could actually, you know it was quite clear that it was the situation she was

frustrated at, not me (Participant 3).

Turning a camera on may not seem challenging but can suggest a level of comfort with leaders allowing their subordinates to see into their home. In some instances, staff or leaders may have their family in the background, or their pets, creating an environment that is more personal than would occur in an office environment.

Supplementary Theme 2: Building Connectivity

In a virtual environment, it appears that subordinates may connect regularly with their immediate manager without having opportunities to connect with other leaders across the organisation. In an office environment, organic conversations with other leaders may occur

naturally through general catch ups however, due to the nature of ICT's this becomes more challenging and may result in a loss of personal connection with these leaders. This could also result in a perceived hierarchy. i.e. rather than subordinates seeing these leaders as a peer, the notion of a clear distinction between follower and leader may become more prevalent.

> Maybe just 'cause of the limitations of you know, him having to actually actively jump on something as opposed to just walking past, I definitely felt much more of a hierarchy. And so, maybe that's where the inauthenticity came out is that I never felt that in the office and then all of a sudden I did and I didn't quite know how to adjust, you know, now I'm like, oh okay I'm not just talking to my peer, but I'm actually talking to my GM, which is now a big deal and I never really felt that before (Participant 6).

Rather than being disconnected, it was perceived positively for these senior leaders to make themselves more visible in both a formal and informal capacity. For example, one participant suggested a leader could join a virtual team meeting, show themselves via the camera, say 'hello' and ask how things were going. This would help build rapport with staff as well as provide an opportunity for subordinates to ask questions about the business and strategic outlook. And, rather than senior leaders being fully disconnected from what was happening, it may have put subordinates at ease to see that senior leaders were experiencing similar challenges as well.

> if he just popped in to one of our virtual meetings. Yeah, we had three virtual meetings a day for seven weeks. There are a lot of opportunities there, and you know, and we could have also seen how tired he looked. 'cause then when we turned up back in the office for the first day of Level 2 our GM looked tired, and he looked like he had been working hard for 5 weeks straight. Umm, but I think seeing that he was going through that stress with us, but he's still like I said before, just physically seeing people I think reminds you that they are people too (Participant 6).

One respondent discussed the challenges of not being in the same room as the leader and the impersonal nature of leaders delivering difficult formal messages to a group virtually. Furthermore, with the virtual dynamic, it made it difficult to probe further on specific questions. This was perceived as leaders avoiding difficult questions.

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just get filling of information that I, we didn't need to know, and we didn't want to know because we knew that was it was avoiding questions and, you know things when like when they will bring up a spreadsheet of who's got this qualification and who's got that, not obviously named and being a week later they've changed the criteria. And it's like "are you putting this in a box to suit yourself?" and so that was really frustrating because you couldn't sit down at a table and go, well, talk me through this, walk me through this. It was all just a spreadsheet on a screen which you know at the time was very impersonal and you didn't feel like you were in a position to ask the questions you wanted to ask if that makes sense… it is very different when you're sitting in a room with people and you can bandy around questions and you know, virtually you can't feel people's emotion or some people's body language isn't as clear and it's easy for them to shut it down because you're not sitting in front of them. Yeah, so from that perspective from a virtual perspective, it was almost an excuse to go, "right, we've run out of time", or, UM, "let's move on to the next slide" (Participant 8)

In a virtual environment, it can be easy to get distracted by the current home situation particularly if the leader's family members are present. Background distractions are not always controllable, but leaders could control how they responded to the situation by communicating at the start of the interaction whether they have their subordinate's full attention or not. One participants indicated that it was important for leaders to make it clear if they are distracted at the start of the interaction rather than mid-way through, and to provide an opportunity to reschedule a time for the interaction if they are not able to have the leader's full attention.

and I suppose it felt like a negative experience because I was in the middle of a conversation, I didn't realise what was going on and although he apologized and said, look, sorry, I'm just at the park and I'm, you know, managing the COVID situation of childcare and work. I just didn't feel like his attention was really focused on what we were trying to do, despite the fact, and I suppose, because I was in such a focus frame of mind and was working away and had quite a productive rate, it kind of felt that his attention wasn't really on what we were doing and should probably if he was down at the park with his kids, he should probably just be focused on his kids and said, I'll call you at another time (Participant 3).

However participants felt negatively about leaders who set an expectation that they would follow up or call back and didn't. Whilst the below negative example was not specific to a virtual environment, it did highlight the need for leaders to follow on their word.

> I think the nature of how she worked was very sporadic and sometimes you would be in a conversation. You know you'd start a conversation with her, and then she'd be like, "oh, that's the MD calling I need to put the phone down and have a chat to him" and it's like "cool, just call back when you're done" and then she never called back (Participant 7).

Supplementary Theme 3: Informal Communication

Another example of effective interpersonal leadership was leaders' ability to use informal or "casual" language through technological means to create a level of comfort. In some instances, using technology tools to communicate can tend to be formal and focused specifically on work related tasks. Leaders who made some effort to use casual language were perceived positively as this helped to break down the barriers between a leader and subordinate and encouraged an environment where there was comfortability in asking for support.

> but just putting it in a way where it didn't sound like it was going to be anything formal if that kind of makes sense, just putting it across as a "just yell out" instead of "send it to me in an email and then we can work through it" type of situation and so I think by her putting it across as just putting your hand up type situation, it made it sound as though without hearing what the situation was made, it made it sound like "hey, it's OK, just put your hand up and then we can sort it out" (Participant 10).

A less formal approach could also increase trust and sharing, for instance instead of calling in sick, staff may be more open about the impact of family commitments on deadlines or job performance. This also helped relieve the pressure and tension that a virtual environment can create.

> during our daily virtual follow ups, you know, she's just let us know. "Hey, just letting you know, yes, totally understand if you've got little people at home" (Participant 10).

Supplementary Theme 4: Establishing Psychological Safety

Establishing psychological safety can occur in different ways in a virtual environment. A theme that emerged from the data were some leaders' ability to set expectations around deadlines and what could realistically be achieved while their subordinates had to navigate family and work-life. To set these expectations, leaders needed to demonstrate empathy and understanding of the different situations of their staff. Respondents associated positive leadership with leaders who were proactive in their language and communicating their expectations upfront, while being supportive when staff spoke up about challenges they were experiencing at home. The proactive communication and language used in the virtual environment was the key behaviour that leaders demonstrated in these situations, along with showing that they shared some of the same challenges and concerns.

> For me as a parent, I felt that my concerns that I raised to my manager with being able to meet certain deadlines whilst during this lockdown period were heard differently because I suppose she had that different hat on, hat of understanding as a parent and so and in saying that I felt like I was really able to meet the outcomes, I wasn't able to meet them perhaps not at 12:00 o'clock midday, but by the end of the day I was still able to forward what was required of me (Participant 10).

In a lockdown environment, the entire family is at home and staff who are parents are having to navigate parenthood, being a teacher as well as working from home in order to meet deadlines. One participant provided an account of having to navigate these challenges.

> when my children had their zoom classes on, I was able to finish my meetings a little bit earlier and just help them facilitate that space with their zoom meetings and then you know I was able to pick up work again after dinner time and I think that was unique to being in that lockdown period (Participant 10)

As well as showing understanding and support for staff, participants also cited how leaders' behaviours showed empathy in balancing the need for organisational results with the challenges that staff faced working from home. Leaders who could balance short term performance outcomes with the well-being of their staff were seen positively.

Leader empathy is about showing understanding and care for the situation that subordinates are in. There are a number of ways this can be done. One participant spoke about the proactive communication and specific language used by the leader in actively indicating that they were there for support during that time.

> she was always extending an extra ear you know, "if you're struggling with anything or if you feel like you're not able to meet this deadline, let me know so yell out" (Participant 10)

Some participants also discussed how leaders demonstrated empathy by creating a virtual safe space for staff to express how they were feeling. These participants reported facing a number of anxieties, pressure and stress regarding the uncertainties of restructure and potentially losing their jobs. By creating a virtual environment and facilitating these sessions, leaders may not have taken an active role to resolve the issues but gave staff the safe space to connect with their peers. Given the isolated nature of a virtual environment, leaders who were proactive and actively created these opportunities for informal discussion were seen positively by participants.

> and just kind of like the ability to talk about that and then have, you know, talk about it quite seriously and know about what was going on but then still have the ability to sort of decompress after talking about it (Participant 6),

> …We know there's going to be mass redundancies and I just really appreciated the fact that we would all check-in a couple of times a week. "How you doing?", "What are you doing?", "Does anyone need any help with anything?" …and just having you know our manager, create the opportunity to connect on a regular basis - it didn't alleviate any fears, but it sort of made you feel a little bit better when you know you're not the only person in your bubble (Participant 8)

One participant spoke about their leader setting up "virtual happy hours" as way of creating a safe space for team members to discuss the challenges they were experiencing. These were set up every Friday during the lockdown period when all staff were working virtually, but given the success of these "happy hours" they continued on post lockdown once the organisation had moved to a hybrid model of working.

virtual sort of happy hours where we could just talk and vent about all of the things that were going on, and I think that even though like normally that's something that we would do sort of on the fly in person face to face and actually having that time set aside every Friday while we were working from home and that's something that we continued while we were like half working from home and when people started working back in the office it was really nice and gave us a chance to just sort of decompress at the end of a really long and really terrible week and just my manager facilitating that and encouraging us to just be really open about how we're feeling was a really positive experience despite being in a really hard time (Participant 6).

Chapter 4: Discussion

To our knowledge, this is the first study that explores virtual leadership using qualitative research, during the COVID-19 pandemic and in New Zealand. Given this unprecedented time in our New Zealand history, a unique set of data emerged, and this resulted in some interesting findings. Some of the results were supported by the previous literature and we did find some new and unique findings that will contribute to the virtual leadership field. Many leadership studies discuss the importance of one leadership theory in a particular virtual context, i.e. transformational over transactional or relational over task-based. Rather, our results identify a construct called Virtual Competence as a highly important attribute for effective virtual leadership. Underpinning virtual competence, is a leaders need to have digital competence in which leader effectiveness at using technology was found to be highly important for both positively effecting task output as well as relational components of leading. In addition, it was also important for leaders to work through the challenges of the digital landscape to demonstrate a high level of human-centered leadership. Whilst task and performance outputs were still needed, it was seen as important for leaders to not neglect the human elements of leadership such as being authentic, building connectivity, using effective communication and making efforts to establish a psychologically safe workplace. Our findings also highlight the challenges of technology impacting a leaders capacity to lead, and positive leadership was associated with leaders who were able to adapt to the technology so that they could still demonstrate effective leadership behaviour. This supported Van Wart et al., (2019) findings whom, identified that leaders need to have awareness of the current ICT's available to them, to be selective in which ICT tool to adopt and have the technological know how to use the ICT efficiently. Our findings also supported Avolio et al (2014) conclusion that in a virtual environment, the technology becomes the medium in which influence of others can occur. Similarly, the importance of focusing on task as well as human elements supported Bartsch et al., (2020) findings that effective virtual leaders should balance both task and relation-based leadership.

A key finding in our research was the importance of leaders being proactive in their interactions with their subordinates. This was seen as important as natural organic interactions that occur in an office environment are not available through virtual means. The virtual workplace requires leaders to be proactive in how they connect with their subordinates at both a task and human centric level and to establish virtual presence and be seen so that subordinates felt connected to their leader. This proactive approach was not only found to be important for

establishing connectivity and presence but also for leaders to check up on their subordinates general well-being and to use regular catch-up/check-in opportunities to connect at a more personal level. Although proactivity does not tie into a particular leadership theory, it may be a key competency relating to effective leadership. Being proactive could also be identified as leaders using their initiative to establish presence rather than being laissez-faire which may ultimately result in a loss of connection. These findings support Thambusamy & Bekirogullari (2020) conclusions that leaders need to be proactive in checking in on engagement and encouraging conversations by asking questions during the meeting to avoid subordinates becoming "invisible". Leaders should use their initiative to encourage conversations and draw out effective discourse in team members through keeping the communication channels open and encouraging those who may be confident to speak up. Our study expands on these findings to highlight the need for leaders to be proactive across the work lifecycle as opposed to just during virtual meetings. Whilst this proactivity was found to be beneficial for effective leadership, it may result in challenges for those leaders with large virtual teams. Therefore, it may be useful for leaders to manage expectations with their subordinates, and to be more planned and organized in when and how they check in with their subordinates, and to communicate this plan clearly with their team. It may also be important for leaders to recognise and understand the varying personalities within their team to identify those team members that may require more regular check-ins versus those that may prefer to work more independently. It was also found to be important for leaders to balance check-ins with a level of trust in their subordinates and it should be noted that leaders should take steps to ensure they get this balance right. To our knowledge, this is the first study to highlight the importance of leaders being proactive in how they interact with their subordinates in a virtual environment specifically within a New Zealand context.

Communication was also highlighted as an important competency for virtual leaders. There is a consensus that simply highlighting communication on its own does not suffice particularly in a virtual environment where the communication channels are more complex through varying ICT's. However, there were some specific findings relating to leadership communication in particular. The findings highlighted the importance for leaders to adapt their communication from a non-virtual to a virtual environment through the use of ICT's. It was seen as important for leaders to recognise how they could adjust their communication style and approach in order to ensure communication is still effective at both a task and relational level. These findings supported Louie (2017) and Soon and Salamzadeh (2020) conclusions however, most notably

summarized by Conteras et al., (2020) who concluded whilst effective communication is an important competency in both a virtual and non-virtual environment, there are differences in how we communicate across these different domains and just because a leader may be effective in a non-virtual environment, does not necessarily mean they will be effective in a virtual environment. Roman et al., (2019) also found that leaders who proactively focused on using ICT's available for social interactions were more likely to build stronger relationships with higher levels of trust. We expand on this previous research by identifying a need for effective communication across a number of domains including a leader's need to communicate the task with clarity and communicate expectations as well as using informal language to create psychological safety within the workplace. In addition to Sivunen's (2006) findings, we also identified the importance of instant messaging and the use of informal language to help create a psychologically safe environment. In a virtual environment, interactions between a leader and their subordinate tend to lend themselves more towards formal interactions therefore, using informal language could support relationship building by creating an environment where both leaders and subordinates feel comfortable being themselves as opposed to being overly formal. It was also identified that over-communicating in some instances is important particularly in hybrid working situations where there are opportunities for being in the office as well as at home. It was important to communicate when leaders might be in the office so that their subordinates could join them to allow for more real-time decisions to be made. Most research has either reviewed leadership in a virtual or non-virtual environment and thus, we did not find any prior studies identifying the importance of leaders over-communicating their whereabouts and intentions for whether they would be in the office or working from home. The hybrid work environment brings with it a lot more complexities to the workplace. As such, it is important for leaders to have situational awareness, and adapt their communication according to the environment they are leading in whether that be a non-virtual or virtual environment. As hybrid working environments become more prevalent post COVID-19, further research to understand effective leadership behaviours with organisations that use this model is recommended.

In a non-virtual environment, leaders can physically see their subordinates perform whereas in a virtual environment leaders needed to adapt how they monitored performance. Some participants identified effective leadership with leaders who were able to recognise task performance and use reward as a way to motivate subordinates to complete their tasks. Whilst there is some consensus in the literature that transformational leadership is more effective for long-term subordinate performance, we did note that these findings may be due to the virtual

environment and a concern that hard work and good performance may go unnoticed. The lack of general office catch ups may also have an impact as there are less opportunities for leaders to provide positive feedback and encouragement in a virtual environment. Therefore, task output may be easier to track through internal systems. This supports Fraboulet's (2021) conclusions, that subordinate motivation increased when leaders focused on recognition and reward in a virtual environment. It also supports Purvona et al., (2020) who found that in a virtual environment, subordinates tended to gravitate towards leaders who rewarded task completion. It is also important to note here that many of the critical incidents discussed had occurred during the COVID-19 caused lockdowns and therefore, it is possible that that during times of uncertainty, the participants may have required a more task focused approach from their leaders as opposed to an inspirational transformational vision. As Lee (2021) indicates, during crisis-induced environments subordinates may prefer structure and routine with clear goals and targets to achieve. These findings also suggest that adopting McGregor's Theory X leadership approach might have some value, however we question the long-term implications if a leader were to adopt this view of their subordinates. Our findings did not support the need for transformational leadership in a virtual environment, in contrast to findings by Fraboulet (2021) and Kahai and Avolio (2007) that associate positive outcomes with transformational leadership behaviour in a virtual environment. Given the timeframe in which the critical incidents took place again, we question whether an inspiring vision was relevant when organisations and employees faced such large amounts of uncertainty. Future research would be recommended on the long-term impacts of both transactional and a transformational leadership approach on employees. Whilst transactional leadership may have been useful during this time, we do have some questions relating to the command-and-control nature of transactional leadership and what impacts this would have on employees if performance is constantly being monitored through ICT's. In addition, whilst managing performance is important, this research has not identified the impacts of employee development in the long-term. This is where a transformational leadership approach may be more useful. We would recommend further research in both of these areas.

Our findings also highlight the importance for leaders to be authentic and transparent in their interactions with their subordinates. Authentic behaviour can be associated with leaders being more open about their personal situations and challenges rather than keeping these to themselves. This allowed subordinates to resonate with the leaders "humanity". Leaders who lead by example and engaged in these behaviours resulted in subordinates feeling more

comfortable doing the same. Thus, resulting in some subordinates feeling more comfortable expressing their own personal challenges as well as asking for support when it was required. This behaviour may lead to an increase in subordinates' capacity to manage challenging home situations which can often go amiss if leaders aren't aware of what is happening and can't offer support. These findings contribute to Zehir and Narcikara (2016) findings that suggest authentic leadership may be useful in increasing organisations' resilience, and Daraba et al.'s, (2021) findings that subordinate's perceptions of their leaders authentic leadership behaviours were associated with an increase in perceived leadership support. In addition to authenticity, leaders who demonstrated empathy and understanding of subordinates' home situations, and who were able to express concern and offer support was also associated with effective leadership. Support behaviours may include leaders offering to help with workload or allowing flexible deadlines to complete work. In some situations, this may require leaders to manage short-term deadlines for the long-term well-being of their staff, which highlights the need for leaders and subordinates to change the way they think about performance and adjust immediate priorities. Whilst it is still important to enhance productivity, the long-term impacts of flexible working may result in an increase in performance if subordinates feel that their general well-being is considered, which may result in an increase in engagement and less burnout as subordinates try to navigate work, family and their personal life all from their home. As far as we know, this study may be the first to highlight the need for leaders to demonstrate empathy in a virtual environment. These findings may add to the relational-based leadership literature by implying that leaders not only need to have effective interpersonal skills, but also need to be proactive in their understanding of their subordinates' home situations and the challenges they may be experiencing whilst working virtually.

Whilst some studies have identified the impacts of different leadership approaches in a virtual environment, as far as we are aware, none have identified the need for different leadership approaches based on situation and context. This study highlights the need for leaders to be effective at identifying the suitable behavioural responses required and necessitates leaders to engage in both task and relational leadership, as well as have sound digital competence. Whilst our findings are broad and do not fit within a specific leadership theory, these findings do align with Fiedler's Contingency Theory of Leadership which highlights the importance of leaders being aware of context (Vroom and Jago, 2007). It is therefore, important for leaders to understand the context, and to apply specific leadership behaviours accordingly. In addition to the findings on leadership, our study has also contributed to the virtual workplace literature by

identifying the challenges that leaders and subordinates face. Leaders are now leading in complex environments, for example, they may be leading globalized teams, or hybrid teams in which they may lead some of their subordinates in virtual environment and some in non-virtual office environment. We suggest that organisations should be reviewing how they recruit leaders for these complex environments, for example recruiting virtual leaders who have a high level of technological competence as well as the agility and adaptability to lead in different environments may be more favourable over leaders who have a large amount of experience in a non-virtual environment. In addition, for those leaders who have not been exposed to leading in a virtual environment, we recommend training to firstly use the tools available effectively and secondly to develop skills in assessing the context of leadership and selecting the appropriate behavioral responses.

Research Strengths and Limitations

Our study had several strengths. Firstly, whilst virtual leadership studies have been conducted previously, none have specifically looked at virtual leadership during or post a pandemic specifically within a New Zealand context. In addition, many studies on virtual leadership have been laboratory studies using students - our study recruited full time working participants to discuss critical incidents that have occurred in the workplace, with many of these incidents occurring during an unprecedented time in our history. By using qualitative interviews and a critical incidents approach, we were able to develop an understanding of perceptions of effective virtual leadership during that time. Furthermore, much of the virtual leadership literature has tried to fit findings into a particular leadership framework or theory, or compares the effectiveness of different leadership theories within a virtual environment. This approach relies on the notion that the initial premise of a particular leadership theory is correct. Given the limited research on this topic, our approach was not to rely on a preconceived notion of effective leadership but rather, to analyse the data with an open mind. We used an inductive analysis to identify leadership behaviours through the data rather than trying to fit these behaviours into a pre-defined model.

Whilst this research did help to contribute to the virtual leadership literature by identifying effective virtual leadership behaviours, it did have some limitations. Firstly, we weren't able to identify what leaders' perceptions of effective leadership were or the challenges that they face within a virtual environment. For many leaders, managing in a virtual environment would be relatively new, and it would have been useful to understand these experiences. We recommend that further research be done to identify perceptions of effective leadership from a

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leader's perspective. A worthwhile endeavor may also be to compare the perceptions of effective leadership from both the subordinates' and leaders' perspective. Another limitation of this research is that the critical incidents identified were during the lockdown period and whilst these participants were working from home, some may have returned to an office environment post lockdown. The incidents elicited some useful information regarding virtual leadership however, they cannot be described as 'typical' but rather, a specific snapshot in time with many of the participants only working remotely during the lockdown periods. It would be difficult to generalise these findings to situations where subordinates would be working remotely for long periods of time. In addition, for many incidents, it appeared that participants were experiencing a level of uncertainty that they may have not experienced before. Some participants spoke about the fear of losing their job during that time, which may have contributed to the uniqueness of the incidents. Therefore, it is possible that some of the incidents may have been exaggerated or distorted due to the emotional state the participants were in at that time. Given the nature of the critical incidents, it did lend itself more to individual interactions. Further research may be useful to identify specific leadership behaviours at both a group and organisational level whereby incidents are identified at a team level or organisational level.

Using an inductive approach, we can only make assumptions about the data and thus, there is a possibility that our findings may be incorrect based on our observations. It is also important to acknowledge the impacts of researcher bias that may be at play. As the researcher, I also experienced working from home and experienced my own level of stress during the lockdown period as well as experiencing my own leadership challenges. During the analysis process, I tried to remain impartial by continuously reflecting and revisiting the data set however, it is important to acknowledge the possibility of some level of bias in these findings. In addition, we acknowledge that our data analysis and data collection processes were not cyclical and interative in nature. Our process involved collecting the data first and then analysing the data in order to form theory. The limitations of this are that we have made assumptions about theory after one set of data collection without rigorously testing it through Grounded Theory principles. A further consequence of this is that we weren't able to cross reference our codes with any new data to confirm or reaffirm the codes, and we weren't able to identify any counterarguments to the original codes identified.

Recommendations for future research

Our research touches on the impacts of COVID-19 and the crisis which many of the participants experienced however, this was not the main aim of our research. We recommend that further research be conducted to understand whether differing leadership approaches are required during times of individual and organisational crisis. Whilst we may never experience another global pandemic in our lifetime, it is inevitable that organisations will experience some form of crisis. In line with the research on VUCA, there is a general consensus that we are living in an ever growing volatile world, and the impacts of human security are being felt. Further research may be useful in understanding what leadership behaviours might suitable during these times when subordinates may be impacted.

Limited studies have focused on the impact of situational leadership in a virtual environment. We recommend expanding the research to develop an understanding of the challenges technology has on situational leadership. In particular, how leaders may be able to identify specific contexts or situations through technology and the challenges this might cause. The majority of the leadership literature, including this study, tends to focus on already-present behaviours in leaders. As organisations move towards an increasingly hybrid working environment, it would be useful to understand how organizations might identify and select talent based on the leadership capabilities required for a virtual environment. Whilst we have touched on the challenges of trait-based leadership theories in the literature review, many organisations are moving towards using measures such as psychometric testing to identify emerging leaders. And whilst there are a number of psychometric tools in the market, few review leadership traits specifically for a virtual environment. Therefore, we recommend that further research be conducted to understand what traits may contribute to effective virtual leadership.

This study identifies the need for leaders to create a psychologically safe workplace environment. We recommend that further research be done on how subordinates perceive psychological safety in virtual working environments. Furthermore, it would be useful to understand the impacts of leadership behaviour in creating a psychologically safe workplace at both and individual and group level. The findings also address the need for leaders to be proactive and regularly make the effort to check-in and schedule time with their subordinates, as the virtual working environment offers few opportunities for informal and spontaneous conversations. Whilst leader proactivity was seen as favourable, it could also be perceived as

micro-managing. Therefore, we recommend further research on over-leading versus under-leading in a virtual environment to understand where the balance might be.

Another important topic this research has not touched on are the impacts of diversity in a virtual world. For one, as leaders and subordinates work in globalized teams, leaders are likely to need a level of cultural intelligence, but also secondly, and more specifically in New Zealand, the impacts of virtual working on our bicultural society. It is important to develop an understanding of how the virtual workplace might impact people with different cultural backgrounds and how leaders can lead effectively to accommodate these varying challenges. In a virtual workplace, it will be important for organisations to understand whether all their employees are given the same equal opportunity to perform given varying home situations and contexts. Another consideration would be how does the virtual workplace and in particular, communicating through technology, impact cultural values and customs as well as connections and relationships, and what consequences might this have on employee well-being and engagement given their diverse cultural backgrounds.

Conclusion

The results indicated a need for leaders to have both competence with virtual working technologies, both to keep track of current projects using relevant tools, and to collaborate effectively and support their teams. Leaders also needed to be responsive to subordinates needs and proactive in reaching out. Communication tools can enable this and support leaders in maintaining the "human" element of leadership, which can be particularly difficult in a virtual environment. Participants valued leaders being able to demonstrate a level of authenticity rather than having to "put up a front". Participants also valued empathy, care and understanding of their personal situations,and flexibility around work tasks, especially as virtual working was essentially forced on them overnight. Leaders therefore needed both skills in using communication technology, and interpersonal skills to use it effectively to lead in the virtual working environment.

Chapter 5: References

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Appendix

Ethics Approval

Information Sheet

PARTICIPANT INFORMATION SHEET

Project Title: **A critical incidents study of effective and ineffective virtual leadership**

Researchers: **Brendan Wild and Dianne Gardner**

My name is Brendan Wild, and I am a Master of Arts (Psychology) student at Massey University, currently researching virtual leadership in organisations under the supervision of Dianne Gardner (School of Psychology). This research aims to gain insight into effective and ineffective leadership in a virtual working environment.

I would like to invite you to take part in my study. I hope to interview around 6-8 participants about their experiences working in a virtual environment. I am particularly interested in hearing about your experiences of positive and negative leadership that have occurred between yourself and your manager in a virtual work environment context. Each interview will take roughly 30-40 minutes and will be carried out on either Microsoft Teams or Zoom, whichever suits you best.

Findings from the study will be presented in my thesis and in a one-page summary document. A summary of the findings can be sent to you, if you wish, when the study is finished next year.

Participating in this study is voluntary and confidential. If you decide to take part, you do not need to answer any questions that you do not want to. The interviews will be recorded for transcribing purposes however, you may ask for the recorder to be turned off, or for the interview to be ended, at any point. Once your interview has been transcribed, I will send you a copy of the transcript where you will have 1-week to review and get back to me if you would like to make any changes. Only my supervisor and I will have access to the interview recordings and transcripts.

If you choose to participate, you are invited to contact me via email (Brendan.wild@xtra.co.nz) so that we can arrange a time for the interview. I plan to start my data collection in July/August so please express your level of interest as soon as possible. If you are interested in participating but have reservations, you are also welcome to contact me with any questions that you might have.

Contact Details

Researcher:

Brendan Wild

Masters Student

Email: Brendan.wild@xtra.co.nz

Phone: 021 259 2294

Interview Schedule

Interview Schedule

Hi, thanks for agreeing to do the interview and taking part in my research. My name's Brendan and I'm doing my Masters degree at Massey University.

The interview has two main parts. I'll start by asking for some background information about yourself, then I'll ask about some of your experiences with virtual leadership at work. Overall, the interview should take about 30-40 minutes.

I'll be recording the interview so that I can transcribe it later for the data analysis. You can ask me to pause the recording at any time. I'll delete the recordings once they've been transcribed, and the transcripts and thesis won't provide any details that could let you, your workplace or leader be identified. I can send you copy of the transcript to check, if you like.

Do you have any questions before we start?

OK, I'm starting the recording now.

Are you OK with the interview being recorded? [IMPORTANT: this records verbal consent to the recording].

Background Questions

1. What is your current work role?
2. How long have you been in your current role?
3. How often do you telework?
4. What technologies do you use (e.g. videoconferencing via Zoom, Skype or Teams, email, phone, anything else?
5. How often do you interact with your manager while teleworking? [prompt: several times a day, once a day, less often than that? How often in a week?]
6. How often do you interact with your manager face to face?

10:00 – 35:00 -

Can you tell me about your recent experiences of working remotely. What has that been like for you?

OK, now I'd like to ask you for an example of a positive experience or situation you've had recently of leadership whilst working remotely.

Can you think of a recent example when you experienced good virtual leadership?

What happened? What was the situation? What did the leader do? What happened as a result? What made this a particularly good example of positive virtual leadership?

Thanks, that was a great example!

Next, can you think of a recent experience of poor virtual leadership?

What happened? What was the situation? What did the leader do? What happened as a result? What made this a particularly good example of positive virtual leadership?

Probing Questions (use if required).

- What specifically about your managers leadership made this a positive or negative incident?
- What happened next?
- Who was involved?
- What was the outcome?
- How did that make you feel?
- Why have you described this incident as a positive interaction?
- Why have you described this incident as a negative interaction?
- How would you describe his/her behavior in handling this situation?
- How would you describe your behavior in handling this situation?
- What could have made the action more effective?

Many thanks! Is there anything else you'd like to add?

35:00 – 40:00 Wrap Up

Once the interview has been transcribed, which may take me a couple of weeks as I do the other interviews, I can send you a copy of the transcript to check. I'd like your response as soon as possible after that – within a week or so. Once the thesis is done, towards the end of the year, I can send you a summary of my findings, if you're interested.

Do you have any final questions before we close?

Thank you!