



Master of Business Informatics

Applied Project

**“Covid-19 and digital innovation. The use of video conferencing by people working from home in New Zealand.”**

Professor: Zarqa Shareen

Supervisor: Michele Akoorie

Student: Marcelo Andraus Lane | ID: 103468

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# Chapter 1: Project Background

## Introduction

Nowadays, video conferences (VC) are a common communication approach for people working from home (WFH), since businesses adapted to the impact of the Covid-19 pandemic in early 2020. VC software is not new, and neither is WFH. However, both practices converged and skyrocketed because businesses needed to protect their employees from infection whilst keeping operations afloat. This project aims to clarify the current landscape of WFH and VC to shed light on how it relates to people's work-life balance in New Zealand. Moreover, it aims to clarify how WFH, with the support from VC software, influences communication, collaboration and motivation, which are pillars for businesses to develop innovation and thrive in highly competitive, disrupted industries.

## *New Zealand in Context*

In early 2020, the coronavirus spread quickly globally, causing an unprecedented death toll due to its infectious power (WHO, 2020). However, New Zealand took advantage of being an island geographically isolated, and closed its borders to avoid infected people coming to the country. In parallel, the government led its population into lockdowns to minimise the virus circulation. As a result of border closure and severe lockdowns, the coronavirus elimination strategy (Jones, 2020) succeeded, and this led New Zealand to massive international renown because it was the only country with a population free from Covid-19 until late 2021 (Miller, 2021). Meanwhile, countries worldwide faced up to four thousand deaths daily, associated with coronavirus (Worldometer, 2021).

Although the government prevented the virus from spreading widely across the country, since early 2020 there were eventual leaks leading the people of Aotearoa into highly restricted lockdowns to contain the virus (Miller, 2021). For instance, the first lockdown lasted 50 days, from March 25<sup>th</sup> to May 13<sup>th</sup>, 2020. However, the last

lockdown was even longer. It lasted 107 consecutive days in Auckland, from August to November 2021 (New Zealand Government, 2022). During lockdowns, leaving home should occur only for basic needs. For example, only a single person from a household should shop for groceries, whilst wearing a face mask. As a result of such high circulation restrictions, the pandemic played a central role in encouraging WFH and VC adherence whilst organisations accelerated their use of digitalisation.

Consequently, VC shifted from a digitalised user base to becoming an essential resource for the life and work of numerous new subscribers – digital and non-digital based. Not only in New Zealand, the massive use of VC worldwide has skyrocketed start-ups like Zoom, parallel to giant ones like Microsoft and Google. Moreover, alongside WFH, businesses accelerated their operation of digitalisation, in which VC played a vital role (Moorhead, 2020).

### ***New Technologies***

Observing the current stage of technology is vital to the understanding of how the use of VC has such a prominent role in supporting WFH. Recently, organisations have taken full advantage of the latest technologies by embracing digital transformation to outperform in competitive markets (Nadkarni & Prügl, 2021). Essentially, digital transformation is about the digitalisation of the business strategy to elevate performance, customer satisfaction and profitability. It benefits businesses of all sizes because it streamlines operations, facilitates decision-making, saves costs and satisfies customer needs. However, digital technologies like Zoom (Marion & Fixson, 2021) were at an embryonic stage a few decades ago and if the pandemic had started earlier, VC would have been unable to support remote business operations as it can today.

The telecommunication industry played a central role in enabling data transmission. First, telephone lines supported dial-up connectivity in the early internet days before expanding to broadband data transmission with optical fibre. Moreover, mobile phones and Wi-Fi devices reached 4G/5G connectivity rates and this elevated data transmission capacity and mobility. At the same time, the hardware industry evolved steadily by developing better devices with powerful CPUs and quality

audio/video components to scale software and data processing performance alongside the user experience. This then, contextualises how businesses develop numerous services and user experiences, because VC combines software, hardware, network connectivity, customer-centric products and business acumen to succeed.

### *Cloud Computing*

Among new technologies, cloud computing stands out because it provides critical services to organisations. Companies providing cloud computing services have one or more warehouses with numerous supercomputers connected to the Internet, storing and processing data for their customers. Although these computers are not really situated among the clouds people can see in the sky, this designation illustrates their virtual character. In essence, it is an outsourced digital infrastructure that provides cutting-edge computing capability off-premises (Karim & Soomro, 2020) in three dimensions. First, hardware and data processing off-premises for businesses, known as Infrastructure-as-a-Service (IaaS); secondly, comprehensive strategic management resources for software and service development, known as Platform as a Service (PaaS); and thirdly, cloud computing provides robust background for digital services commercialisation, known as Software-as-a-Service (SaaS).

In parallel to IaaS, PaaS and SaaS, cloud computing has three pillars to benefit businesses: availability, security and scalability (Karim & Soomro, 2020). Availability provides full-time service in highly secure and modern data centres, minimising the organisation's infrastructure and maintenance costs. Meanwhile, scalability enables flexible pricing by adjusting features up and down simply, known as pay-as-you-go, which facilitates budgeting. As a result, businesses can focus on their core strategy rather than maintaining technology, which has the advantage of facilitating innovation. Microsoft Teams, Google Meets, and Zoom are examples of VC software based on cloud computing, from hosting (IaaS), development and maintenance (PaaS), and online commercialisation (SaaS). Hence, alongside the telecommunications infrastructure, cloud computing provides the framework for contemporary businesses to develop and have easy-to-use software with an excellent user experience. This context paved the

ground for a successful and exponential WFH and VC growth when the pandemic started.

### *Challenges*

In such a disrupted context, challenges may arise from businesses shifting to WFH. On the one hand, VC enables businesses to keep operations afloat to overcome disruption, but, on the other hand, it might impact leadership, work culture, business infrastructure and household activities, which also disrupt processes.

Leaders are central to maintaining employee motivation to sustain productivity whilst adapting to WFH. Managers are not only responsible for organising and distributing work across the company but also for ensuring employees deliver products on time, within budget and specifications, to meet the best quality standards whilst delivering value to the customer. However, the landscape has changed. Managers must motivate and maintain job satisfaction whilst communicating remotely with the workforce. Meanwhile, due to the pandemic, clients expect enhanced innovation to improve customer satisfaction.

The rapid shift to isolation and WFH sparked global anxiety, affecting employees' mental health and productivity (Troughakos et al., 2020). As a result, leaders had a particularly challenging role in motivating staff to keep business operations afloat. However, leaders were also isolating, organising their household activities like everyone else, and possibly dealing with their own anxiety. This anxiety spark was a response to the abrupt environmental change, which impacted people's lives, whilst the Covid-19 infection meant people feared for their lives (Hu et al., 2020). Therefore, managers aimed to enhance innovation and minimise "cyberloafing" due to anxiety and job disengagement (Zhong et al., 2022). Hence, anxiety is a central element that leaders had to tackle to support successful histories of companies changing permanently to remote work and enjoying profitability during the disruption (Khan, 2021). Along with the performance challenge comes the infection risk, and the problem of misinformation circulating on social media (Khan, 2021).



Modern organisations are people-centric. Therefore, seeking top talents and maintaining higher engagement is of the utmost importance because it guarantees optimised operations, lower turnover, and enhanced profitability. For example, Apple is well-known for investing heavily in its employees to guarantee innovation (Podolny & Hansen, 2020). Within this perspective, managers must understand the employees' experience of remote work to measure motivation and maintain innovation because people are the driving force behind business success.

Motivation is vital to generate innovation and is the primary requirement to support a competitive advantage in a competitive/disrupted business environment. Hence, this project investigates the aspects of VC and WFH experience and relates them to innovation rules. For instance, does WFH enable enough communication and collaboration to encourage innovation at a competitive pace? The author then wonders if people feel they are part of the team whilst interacting virtually. If not, does this reduce job engagement?

Moreover, is VC software performing well, and is it easy to operate? Do the homes of employees have reliable internet connections and ergonomic seats to optimise long hours of performance? Furthermore, did they find a balance between household and professional activities? To what extent do WFH and VC impact work-life balance? In addition to that, cyber security is a critical dimension because it reveals if a company has adequate security and governance policies to avoid exposing its networks, such as using weak passwords that may lead to sensitive information leakage (Taneski et al., 2019). However, most organisations fail in cyber security measures due to a lack of employee training and education (He & Zhang, 2019). Therefore, WFH must consider policies to avoid cyber-crimes because these can damage the reputation and financial health of businesses and people. This project explores employees' perceptions of feeling secure and their awareness of cyber security whilst operating remotely.

### ***Organisational Culture, Communication and Innovation***

Organisational culture enriches the discussion surrounding this research because it comprehends the subliminal dimension of communication and collaboration in the

business environment. By default, organisational culture is the realm of the unwritten rules, values, symbols and interpretations of people in the workplace. However, from a practical perspective, it defines the unique way people operate the organisation, for instance, by developing critical thinking, stimulating ideation and creativity, and solving problems. Therefore, modern businesses like Apple and Netflix keep a close eye on organisational culture because it defines their competitive advantage whilst shaping employee behaviour that encourages innovation. In parallel, innovation results from communication, collaboration and a sense of belonging (Shelton et al., 2005), which are core VC features.

In the context of the pandemic's disruption, numerous questions surround if and how organisational culture and innovation capabilities have changed since people started working remotely and communicating online. For example, whilst office work fills people with valuable daily information, WFH minimises it. In the office, people have real-time awareness of what other employees are doing, thinking and feeling, customer feedback, business performance, management decisions, the root causes of good and bad outcomes, and whether or not the business is performing well.

On the one hand, whilst tacit communication somehow sounds like “office gossip”, on the other hand, it defines the organisation's climate by encouraging or inhibiting collective behaviour according to its context. For example, this research project might reveal that excessive VC hours jeopardise the organisational climate because it causes employee exhaustion and inhibits collaboration. In this climate of exhaustion, the workforce will lack engagement, reducing their innovative capability.

Another perspective from information sharing is that at the heart of the rise of social media platforms in the late 2000s, people's intense need for new information was the driving force behind social media platforms' growth. Some examples of content sharing are Facebook with daily activities, Instagram with photos, Twitter with short thoughts, and LinkedIn with professional networking.

Ultimately, society reflects an intersection between technology and communication over time, and innovation encourages what rests in the essence of people's nature and the need for information. For example, decades ago, the telephone, radio and television were technological innovations aiming to facilitate communication and information sharing; nowadays, a different intersection might arise from the

combination of VC and WFH setting new standards for how people communicate. Hence, it is relevant to generate findings surrounding communication, collaboration and how people experience novel virtual collaborative rooms because it is likely that the culture of organisational dynamics will adapt alongside this paradigm shift. Furthermore, it will be valuable to industry, as organisational culture impacts the outcomes of innovation.

Along with organisational culture, the workplace is likely to change, and organisations must re-think the office-space model to fit future optimised operations because, by default, optimisation defines competitiveness. Organisations must also optimise empty office spaces. Overall, this should benefit the community as there will be a reduction in commuting employees, operational costs and energy consumption. In addition, WFH and VC intersect with climate change and this is a particularly relevant theme to society because of its threatening impact on the modern economy, nature and the wild/human life of future generations (Dalby, 2021).

WFH and VC are certainly not the whole solution but they have the potential to contribute by minimising energy consumption (Shreedhar et al., 2022). For example, in Brazil, the first lockdowns led to a massive drop in fuel consumption, which led to fuel prices dropping from between 30 and 70 per cent, whilst in the US, consumption dropped 48 per cent during the same period (Losekann & Rodrigues, 2020). Hence, encouraging the vision of having a more environmentally friendly footprint by adopting WFH and VC should benefit the global community in the long term.

In summary, this study approaches numerous dimensions of WFH and the support of VC software to find answers that might clarify how the people of New Zealand are adapting to a different reality. It may also reveal how employees can work safely alongside the increasing number of cyber-attacks, and heighten the awareness of anxiety associated with WFH arrangements, and also how business leaders would enhance management skills to improve employee motivation to maximise innovation. Moreover, we consider whether VC is becoming a standard communication tool in professional life and if people feel comfortable using these tools. We also ask, is VC bringing about a paradigm shift in peoples and businesses' behaviour? Furthermore, in what conditions does VC improve work-life balance, or does it spark anxiety and other health issues? There are numerous questions that this project aims to scrutinise to shed

light on the current WFH and VC panorama, and whether employees are keen to continue adhering to it, albeit being the everyday normality of dealing with the pandemic.

### ***Research Objective***

The research objective is to evaluate the user experience of video-conferencing and how it has impacted employees' WFH since the pandemic, because it has the potential to generate valuable insights. On the one hand, employers should evaluate the current remote work strategy, improve employee engagement, avoid pitfalls, and improve operations in a remote work context. In parallel, they need to aim for employees' higher productivity alongside enhanced work-life balance to guarantee job satisfaction and long-term earnings.

Evaluating VC and WFH's continuous adherence is worthy of in-depth investigation. The survey will analyse the data to visualise the current VC and WFH experience and observe the likelihood of its adherence regardless of the pandemic. This may highlight a society's behavioural changes and examine if employees perceive value in performing VC, and how it impacts their work-life balance, which affects job satisfaction. The impact of transition on WFH innovation is relevant because the experience is correlated with collaboration, communication and creativity and whether VC alongside WFH is a basis for generating innovation. Therefore, the topic is **“Covid-19 and digital innovation. The user experience of video conferencing by people working from home in New Zealand”**.

### **Research Questions**

#### ***Primary Question***

- What is the user experience of VC whilst people WFH in New Zealand?

## *Secondary Questions*

- Question 1: Does using VC whilst WFH highlight a society's behaviour change?
- Question 2: Does using VC whilst WFH correlate with stress and anxiety?
- Question 3: Does using VC whilst WFH correlate with productivity?
- Question 4: Does VC encourage WFH and influence work-life balance?
- Question 5: Does using VC whilst WFH present challenges?

## **Hypotheses**

Saunders et al. (2019) argue that an experiment has testable explanations, known as hypotheses, to test research theory and demonstrate whether or not there is a relationship between its variables. Moreover, it should start with a null hypothesis, which declares no relationship between two or more variables (Saunders et al., 2020). Then, it evaluates the significance of findings from a sample using statistical tools.

Accordingly, this project can clarify the user experience of VC and WFH in New Zealand and explore hypotheses like society's changing habits and correlations with stress and anxiety.

### **H1: If using VC whilst WFH highlights a society's behaviour change.**

- H1<sup>o</sup>: Using VC whilst WFH influences a society's behaviour change.
- H1a: Using VC whilst WFH does not influence society's behaviour change.

### **H2: If using VC whilst WFH correlates with stress and anxiety.**

- H2<sup>o</sup>: Using VC whilst WFH correlates with stress and anxiety.
- H2a: Using VC whilst WFH does not correlate with stress and anxiety.

Moreover, there are vital areas to explore related to professional productivity, the likelihood of people adopting VC to WFH permanently, and if people perceive value. This comes with two more hypotheses:

### **H3: If using VC whilst WFH correlates with productivity.**

- H3<sup>o</sup>: Using VC whilst WFH correlates with productivity.
- H3a: Using VC whilst WFH does not correlate with productivity.

**H4: If using VC encourages WFH because it influences work-life balance?**

- H4<sup>o</sup>: Using VC whilst WFH improves work-life balance.
- H4a: Using VC whilst WFH does not improve work-life balance.

Finally, another dimension is to reveal the challenges of VC and if people perceive this as technology-friendly. This brings us to the final hypothesis:

**H5: If WFH whilst VC presents challenges.**

- H5<sup>o</sup>: It is challenging WFH with VC.
- H5a: It is not challenging WFH with VC.

## **Significance of the project**

The study is relevant for clarifying the impact of professional VC practices and if it supports a paradigm shift in WFH. Nowadays, people can define new work-life balance standards by enjoying more time with family, or travelling, whilst not compromising professional performance. Therefore, we need to analyse the likelihood of people adhering to WFH regardless of the ongoing pandemic because WFH might enhance work-life balance and contribute to job satisfaction and creativity, leading to enhanced performance and innovation.

On the other hand, this study may reveal drawbacks of WFH and VC practices and suggest improvements in tackling them more efficiently—for example, preventing people from having fatigue or anxiety due to inappropriate use, and implementing regulations and adjusting the routine to gain the best benefit from it.

VC software is relevant to the ICT industry whilst supporting numerous business operations alongside the pandemic, and it is worthwhile to carry out this study to understand the influence of this piece of technology on professionals' performance. For example, if it contributes to generating innovation, how can it scale innovation and for whom is WFH suitable?

Moreover, it is vital to shed light on the paradigm shift of people WFH because it might greatly benefit communities in the long term, helping tackle significant issues like reducing carbon emissions. For example, supposing organisations adopt 50 per cent WFH permanently, this might significantly reduce fossil fuel consumption, along with pollution related to workforce commuting. It is also likely to reduce health issues in major cities.

In conclusion, VC and WFH have the potential to help society to support businesses to operate and generate innovation in a pandemic scenario and enhance work-life balance. Notwithstanding, people and organisations need fresh knowledge to improve their ongoing processes. New information is of the utmost importance for promoting critical thinking and substantiating decision-making. Hopefully, this study will contribute to elucidating the current scenario, especially for New Zealanders, and contribute to the common good. Furthermore, new information is necessary to support organisations in deciding how to standardise their WFH best practices effectively in the long term, to enjoy its benefits.

## Chapter 2 – Literature review

### Introduction

The literature review aims to identify and debate the central and latest ideas embracing video-conferencing and WFH practices. Additionally, it will highlight the user experience since the Covid-19 pandemic and provide in-depth knowledge on how people manage challenges in work-life balance whilst performing VCs during WFH. Finally, organisational culture, leadership and innovation are topics worth discussing because they relate to tacit aspects of business operation, however, they have an enormous impact on performance and profitability.

Finally, after shedding light on all these issues, this project will discuss how to improve processes and get the best from WFH and VC practices. Moreover, 40 months since the pandemic started in 2020, a new operating system could shape how businesses and communities can improve work-life balance whilst tackling contemporary challenges.

### Search method

Criteria	Search items
Search keywords and keywords combination	Video-conferencing; video-meetings; work-life balance; work-from-home, pandemic; Covid-19; video-conferencing user experience; video-conferencing challenges; work-from-home challenges; work-life-balance new technologies; work-from-home productivity; innovation; digital innovation, organisational culture; creativity; business innovation.
Databases	Mendeley, Pro-Quest & Google Scholar.



Language article types options	Academic Journal articles & Conference papers (peer-reviewed).
Date Range	from 2016 to 2021 (two exceptions: one from 1997 and the other from 2005).
Exclusion Criteria	Software and technologies not related to video-conferencing; user experiences other than work from home and work-life balance; latest technologies not associated with the pandemic and Covid-19 virus.

## Central ideas and debates

### *Video-conferencing, early days and leading players*

Video-conferencing is an emerging technology from the mid-1990s. Its purpose is to facilitate business communication whilst enhancing the online user experience, including eye contact between attendees to make it as natural as possible. Moreover, it features real-time audio/video streaming between two or more people. Although incipient, VC was relying on the support of other new technologies to thrive—for example, internet speed connection and the overall telecommunication infrastructure (Lombard & Ditton, 1997). Consequently, the use of VCs has increased alongside other technological advancements. Zoom, Skype and Teams by Microsoft and Webex by Cisco are currently the most dominant players in the industry (Arishina et al., 2022; Gupta & Varsakiya, 2021).

As a new technology, VC supports innovation by providing an excellent user experience and facilitating communication and collaboration to develop services. Marion and Fixson (2021) reveal that VC has steadily replaced telephony and has become vital to maintaining business operations since the pandemic.

### ***WFH, VC and the Covid-19 pandemic***

Although businesses had practiced video-conferencing throughout the last decade, its use skyrocketed when the World Health Organisation (WHO) declared the Covid-19 as a pandemic in March 2020 (WHO, 2020). The alert encouraged lockdowns worldwide, forcing businesses to shift to WFH to preserve employee health, thus becoming a primary driver for business operations (Kshirsagar et al., 2020). Hence, organisations adapted the new status-quo of performing virtually to keep operations afloat.

Watson (2021) determined that WFH emerges as a new culture when businesses and employees notice benefits. For instance, empty offices became costly and inefficient in the UK, with 38% of the workforce working remotely. Moreover, higher productivity and lower turnover benefit businesses because employees enjoy a better work-life balance, sparing them from office-related fatigue (Watson, 2021). Furthermore, Johns et al. (2021) state that companies reorganised their leadership models to operate remotely, and families reorganised their dynamics. Accordingly, many Australian businesses have shifted to WFH permanently because it has proven to enhance creativity and productivity, even with occasional pet and child interruptions and technical difficulties (Johns et al., 2021; Watson, 2021). Thus, WFH and video-conferencing were critical for the new culture to succeed.

Whilst Somani (2021) and Arishina et al. (2022) state that VC has become a norm for businesses because it enables remote work, Somani (2021) adds that vendors will likely keep growing in the next few years because they allow businesses of all sizes to operate remotely.

### ***Video-conferencing and work-from-home shaping the new normal***

VC is of the utmost importance for surviving businesses to flourish in a post-pandemic era. Oktavia et al. (2022) analyse employees' WFH experiences. They consider performance expectation, effort expectancy, and social influence, contextualising its use. It is interesting that acknowledging risks does not prevent people

from using VC nor minimise the intention of use. Oktavia et al. (2022) determine VC scales usage due to its excellent user experience whilst supporting productivity.

Identifying the driving forces that determine the use of VC is vital. Also, on the one hand, collective use reinforces individual adoption contributing to social adherence, as stated by Oktavia et al. (2022). On the other hand, in post-pandemic scenarios, businesses must maintain policies. Therefore, Somani (2021) and Oktavia et al. (2022) agree that VC will likely sustain steady growth by enabling remote business operations (Lund et al., 2021). Furthermore, Kuofie and Muhammad (2021) predict that WFH will remain in a post-pandemic scenario because businesses and employees acknowledge that it saves commuting time and costs whilst improving work-life balance.

### ***Pros and cons***

Video-conferencing has the advantage of supporting human interaction after the Covid-19 pandemic. Gupta and Varsakiya (2021) highlight that it facilitates people to interact regardless of location and provides an excellent experience. However, VC is also data-consuming, and a weak internet connection leads to poor streaming, compromising communication quality and meeting goals. Furthermore, some people lack operational skills and disrupt meetings with everyday background noise.

### ***Cyber security***

Although people acknowledge cyber security risks, people continue to adhere to video-conferencing (Oktavia et al., 2022). However, for Gupta and Varsakiya (2021), data security is crucial, which is congruent with Ahmad's (2020) views. For Gupta and Varsakiya (2021), the main drawback of WFH is cyber criminals exploiting employees' vulnerabilities. For example, 42% of internet endpoints – such as notebooks, mobile phones and Wi-Fi – are vulnerable; this will increase cyber crimes. In parallel, regulation is critical for preventing financial losses. So, Ahmad (2020) and Arishina et

al. (2022) agree that training and educating people is vital in preventing malicious activities that might compromise data privacy.

Arishina et al. (2022) scrutinise Zoom, Skype and Microsoft Teams to disclose their security issues. Although there is no evidence of breaches since 2020, businesses must train and prepare the workforce to use VC platforms safely, which aligns with Ahmad's (2020) and Arishina et al.'s (2022) concerns. Okerefor and Manny (2020) add that network and password weaknesses are common vulnerabilities, which ethics and policies should solve. Regulations are vital because they transcend software breaches and rely on people to maintain a sound tech/business environment.

### ***Psychological issues: emotional exhaustion and anxiety***

In contrast to VC benefits, professionals experience emotional exhaustion, which jeopardises performance. Johnson (2021) observes root causes, like excessive meeting time, unawareness of planning and counter-productive behaviours, such as the feeling of surveillance by managers, and multitasking. Amponsah et al. (2021) add that VC generates anxiety and exhaustion by requiring more focus than in-person interaction. Amponsah et al. (2021) mention Zoom is causing burnout due to excessive screen time, unstable connections and lack of human interaction.

Finally, Amponsah et al. (2021) report that people seeing themselves on-screen causes concentration disruption and can have a negative impact on mental health. Cristel et al. (2020) add that WFH led people to spend extended time using VC, which requires unnatural social interaction through digital platforms. Cristel et al. (2020) reveal that people are reshaping their faces to adjust to “contemporary beauty standards”, the nose being a primary target. As a long-term trend, this type of cosmetic treatment is a result of VC consolidation.

### ***Stress, productivity loss and job dissatisfaction***

Current WFH arrangements impacted workforce earnings, which was a primary cause of stress elevation, leading to job dissatisfaction. Maqsood et al. (2021) link WFH during the pandemic with the shrinking of numerous salaries, causing employees' personal lives to be disrupted because they could not deal with financial burdens, and this caused stress and anxiety.

Maqsood et al. (2021) add that shifting to WFH without a plan was an additional cause of stress as there was no plan for work-life balance and this led to work disengagement. However, Okabe-Miyamoto et al. (2021) and Maqsood et al. (2021) report that employees' lower productivity and higher anxiety during VC were due to employer surveillance. Therefore, Maqsood et al. (2021) conclude that no employee should have their cameras on the whole time. It exposes their private lives and does not contribute to enhancing productivity, rather it jeopardises the work and workers' mental health.

In the US, 62 per cent of employees prefer to spend some time in the office, 11 per cent choose to be there full-time, and 51 per cent are keen to return full-time. The reasons are mostly about having a professional work environment, interaction with colleagues and suffering from spending too much time at home without seeing people. Besides that, the office environment inspires a job-focus mindset, letting employees concentrate on work (Tatum, 2022). Meanwhile, in the UK, a Tory politician, Mr Jacob Rees-Mogg, claims that the public service lacks efficiency due to numerous expensive empty buildings whilst the government could spend the money better elsewhere (Forrest, 2022).

### ***Improving VC and WFH outcomes***

Although there are numerous drawbacks, some authors also suggest VC and WFH improvements to deal with the causes of stress, anxiety and job dissatisfaction. For example, Okabe-Miyamoto et al. (2021) suggest that managers should allow

employees to use only audio during conferences when convenient, preventing them from developing mental health issues and enhancing productivity.

Understanding how organisations develop employee engagement practices to maintain productivity alongside disruption during the Covid-19 lockdown is vital because it causes a cultural impact on WFH practices (Watson, 2021). For example, moving public servants WFH from the capital to counties and towns in the UK would improve their work-life balance and contribute to rebalancing London's population (Forrest, 2022). Accordingly, it contrasts with Maqsood et al. (2021) and Okabe-Miyamoto et al.'s (2021) views, which reported salaries shrinking and VC being used for surveillance purposes rather than practical work; and Cristel et al. (2020) and Amponsah et al. (2021) unveiled that extended VC time causes fatigue and exhaustion.

### ***Employee engagement***

Numerous organisations are human-resources centred, aiming to maintain employee engagement by acknowledging that employee satisfaction impacts productivity and profitability. Therefore, supporting employees to organise themselves to succeed whilst WFH is vital (Chanana & Sangeeta, 2021). It includes workstation ergonomics, having a routine with pauses and moments of relaxation, and intervals for informal talk and training sessions. Ultimately, it highlights the need for high morale and motivation to deal with the pandemic disruption whilst generating profitability at a sustainable pace.

Watson (2021) argues that reorganising the daily schedule is essential to maintain good professional performance and health. For example, fitness activities replace commuting time, avoid shopping online and eating cookies, focus on what people can control, and include work breaks throughout the day. Watson (2021) adds that organisations are recalibrating the new normal that provides work-life balance enhancements with the essentials of highly effective practices. However, it challenges businesses to find ways to maintain how people can communicate, collaborate and share knowledge to optimise productivity (Watson, 2021).

### ***Planning meetings***

Oeppen et al. (2020) state that VC is vital to encourage people's interaction to elevate performance in the work environment. However, it is impossible to guarantee that WFH will continue after the pandemic, in its current state. Nevertheless, the likelihood of VCs continuing to support businesses and professionals performing remote work is high. Thus, it is necessary to set an agenda and a meeting leader to organise attendees' speaking time. In addition, the study suggests that a ten-minute break should be included every 90 minutes to avoid fatigue. Furthermore, people should not multitask and should keep themselves free from smartphone interruptions. These, simple rules will make WFH more productive to elevate outcomes (Oeppen et al., 2020).

### ***Leadership and Policies***

WFH policies are vital to maintaining job satisfaction and productivity. However, Tanpipat et al. (2021) argue that leaders should approach the remote workspace differently to optimise performance because mandatory in-person work has led to employee dissatisfaction, negatively impacting on work performance.

Business leaders and HR managers must focus on remote employee commitment. It implies adopting clear policies that fill communication gaps to enhance productivity and job satisfaction. Kuofie and Muhammad (2021) and Tanpipat et al. (2021) agree that a strategic management style alongside policies defines WFH's success. Lund et al. (2021) add that business success implies having human interaction and continuous learning in synchronicity with the right leadership style. Finally, Bélanger et al. (2016) approach leadership as vital to optimising business processes and highlight that knowledge management scales have continuous innovation capabilities.

## ***Creativity and Innovation***

Creativity and innovation are vital because they enhance product development and competitiveness. According to Carr et al. (2016), innovation relates to continuous human behaviour enhancements that allow society to develop. Creativity is the capacity to generate and connect relevant ideas for problem-solving. Ultimately, creativity supports the innovation process. Carr et al. (2016) define innovation as a system of enhancing and attributing value to processes that support social development. Outcomes are new tools and their incremental development takes place over time.

Drechsler et al. (2020) acknowledge that businesses meet customer satisfaction when constantly innovating, which means adopting new methods and technologies, like VC. Hence, Drechsler et al. (2020) and Carr et al. (2016) connect concepts because VC is a tool for social development. Finally, both studies are consistent with Marion and Fixson (2021), who argue that VC supports business innovation, whilst innovation is vital to maintain long-term profitability and sustainable growth.

## ***Rules of Innovation***

Whilst numerous authors explore innovation in depth, Shelton et al. (2005) argue that successful innovation requires an appropriate framework to scale outcomes and support business profitability at a sustainable pace. Several rules stand out: facilitating communication to enhance creativity; and people must be at the heart of an innovative sound business and feel that they are part of the team. However, managers must avoid (toxic) employees or concepts that hinder communication or collaboration because this jeopardises creativity and problem-solving capacity, preventing innovation from flourishing. Finally, metrics and incentives are essential to foster innovation.



### ***Communication and Collaboration***

Lee and Trimi (2021) reveal that communication and collaboration are vital to elevating innovation outcomes whilst adopting new technologies throughout a distributed collaborative network. For example, enhanced collaboration brought practical solutions to the pandemic disruption by facilitating innovation, such as vaccines, in a very short time frame.

From that perspective, this literature demonstrates that VC supports business innovation because it is a new technology that facilitates employees' communication and collaboration. Leaders play a vital role by incentivising VC to enable business operations. However, it requires them to apply the right leadership style, according to Shelton et al. (2005) and Lund et al. (2021), to implement metrics and incentives that motivate employees. On the other hand, Maqsood et al. (2021) find that VC used for surveillance led to employee disengagement, minimising innovation. Finally, Kuofie and Muhammad (2021) and Tanpipat et al. (2021) correlate with policies improving VC and WFH performance.

### ***Organisational Culture***

Organisational culture is a set of unwritten norms, values, symbols and interpretations that shape how people behave in the business environment, which is vital for predicting action and outcomes (Gayathri & Anand, 2021). Modern organisations care about culture because it supports strategic goals whilst providing consistency in talents, leadership and decision-making (Kassem et al., 2019). Moreover, according to Lousã (2020), organisational culture supports the innovation process.

At Netflix, organisational culture has been vital for its success, and it is well-known not only for its top-notch innovation capability but also for providing unequalled flexibility, including WFH before the pandemic. Furthermore, at Netflix, their culture prioritises communication and collaboration (Hastings & Meyer, 2020).

An article from Hinds & Elliott (2021) argues that WFH is a reality for most highly-paid employees looking for flexible working arrangements, which has led businesses to shift into a Remote-First Culture. Enterprises like IBM, Alibaba and Infosys illustrate how the paradigm shift has occurred. Recently, these giants have shared their pitfalls and highlighted what top managers must observe. The advice is to adapt, not to replicate, because each environment has unique nuances. Moreover, onboarding new talents in a remote mode is one of the central challenges whilst settling into corporate culture. Finally, managers must acknowledge that hybrid organisations are the imminent future (Hinds & Elliott, 2021).

### ***Communication and Collaboration***

Communication and collaboration are vital, according to Le et al. (2020). Innovative organisations encourage transparent processes, have horizontal hierarchies, and communicate and collaborate more. However, innovation depends greatly on people perceiving implicit and explicit gestures throughout interpersonal communication, which is congruent with Hinds and Elliott's (2021) findings. Finally, Le et al. (2020) report that the knowledge-sharing capacity reflects the quality of business innovation, whereas VC sustains employees' communication and collaboration.

### ***Readiness and adaptability***

Zhen et al. (2021) report that organisational readiness and the culture of a business support the performance and scale of digital innovation. Additionally, capabilities support readiness, stimulating innovation to flourish by welcoming change. Whilst readiness means having tools to enable operations, welcoming change means having creative and forward-thinking people to adapt to different scenarios, for example, operating VC and moving to WFH during the pandemic. Therefore, this literature links organisational culture supporting WFH and VC arrangements to effectively enhance employees' communication and collaboration without losing sensitive gestures that impact quality of innovation.

## Debating ideas

The literature provides evidence of how WFH and VC relate to each other alongside the pandemic and the user experience, demonstrating benefits, pitfalls and room for improvement. However, there is a significant gap in the global literature exploring the impact of the pandemic on wages and WFH in the New Zealand context. In fact, only Green et al. (2020) discuss its impact on locals, which suggests there is a need for further research.

Overall, the authors consider current arrangements between businesses and employees adopting the WFH in a long-term agreement. For example, the pandemic started in 2020 with numerous employees shifting to a WFH model, and in 2022, adherence is still high. This correlates to the hypothesis of society's behaviour change that this research aims to consider.

- **H1: If using VC whilst WFH highlights a society's behaviour change.**
  - H1a: Using VC whilst WFH influences a society's behaviour change.
  - H1b: Using VC whilst WFH does not influence society's behaviour change.
- **H2: If using VC whilst WFH correlates with stress and anxiety.**
  - H2a: Using VC whilst WFH correlates with stress and anxiety.
  - H2b: Using VC whilst WFH does not correlate with stress and anxiety.

Some literature demonstrates that WFH relies on VC because of its professional communication and collaboration features. This has occurred due to the advancements in the telecommunication sector and other new technologies, like cloud computing. The ambiguity arises when work-life balance, creativity and productivity improvements contrast with increasing stress, anxiety, and job dissatisfaction, leading to productivity loss and mental health illnesses. Therefore, this links again to the second and third hypotheses related to productivity.

- **H2: If using VC whilst WFH correlates with stress and anxiety.**
  - H2a: Using VC whilst WFH correlates with stress and anxiety.
  - H2b: Using VC whilst WFH does not correlate with stress and anxiety.
- **H3: If using VC whilst WFH correlates with productivity.**
  - H3a: Using VC whilst WFH correlates with productivity.

- H3b: Using VC whilst WFH does not correlate with productivity.

Challenges are related to WFH and VC, such as the need for policies, agenda, organisation and cyber security aiming for sustainable productivity. Finally, there is extensive literature on innovation and how it links to communication and collaboration under the spheres of teamwork and organisational culture, to which VC gives vital support. Thus, it relates to the hypothesis that people perceive value in VC and WFH because it might allow, or hinder, people to improve work-life balance and professional performance, impacting their earnings. Therefore, VC technology might be valuable for encouraging adherence to WFH.

- **H4: If using VC encourages WFH because it influences work-life balance?**
  - H4a: Using VC whilst WFH improves work-life balance.
  - H4b: Using VC whilst WFH does not improve work-life balance.
- **H5: If WFH whilst VC is challenging.**
  - H5a: It is challenging WFH with VC.
  - H5b: It is not challenging WFH with VC.

### **The significance of the study**

Understanding the perceived value of VC and if it supports a paradigm shift in how professionals WFH is under scrutiny in this project. Nowadays, people can define new work-life balance standards by enjoying more time with family, or travelling, if that is meaningful for them, whilst not compromising professional performance. Therefore, the study analyses the likelihood of people adhering to WFH because WFH might enhance job satisfaction, creativity and innovation, regardless of the ongoing pandemic.

On the other hand, unveiling the drawbacks of WFH and VC practices and suggesting improvements in tackling them more efficiently is utterly relevant—for example, preventing people from having fatigue or anxiety due to inappropriate use, thus, implementing regulations and adjusting the routine to make the best use of it.

VC software is relevant to the ICT industry whilst supporting numerous business operations during the pandemic, and it is worthwhile to carry out this study to understand the influence of this piece of technology on professionals' performance. For example, if it contributes to generating innovation, how can it scale innovation for those WFH?

Not only is the topic relevant to people in New Zealand to clarify its impact on them, for big cities worldwide WFH might also be vital to fight climate change because it significantly reduces commuting. It also spares people from heavily relying on petroleum to power cars, buses, trains and ferries to transport people to work. Moreover, WFH also spares the cost of office maintenance.

Whilst WFH minimises commuting, it reduces the emission of petroleum-related air pollutants, and benefits people's health. Hence, big cities with a higher adoption of remote work would have cleaner air, minimising pollution-related illnesses. For example, the Brazilian city of Sao Paulo suffers from poor air quality due to numerous vehicles on the road daily. Improvements would potentially prevent people from developing severe illnesses (Bravo et al., 2016) and the burden of the high costs of treatments for the public health sector and families.

In conclusion, VC and WFH can help society support business operations, generate innovation in a pandemic scenario, and elevate work-life balance and people's health. Additionally, it saves commuting costs and streamlines business operations whilst tackling climate change, a long-term challenge to the modern world. However, it requires caution to succeed. It requires regulations to sustain productivity and in-person socialisation, even if WFH is an underpinning vital requirement. Otherwise, it might spark anxiety, causing productivity loss. Hence, organisations need best practices to benefit from WFH in the long term.

## **Chapter 3 – Methodology**

### **Introduction**

Research is a vital activity in society because it approaches the development of new knowledge with a solid background. Therefore, research has an empirical profile that achieves similar results by repeating itself based on experience, or observation, rather than on theory (Cambridge Dictionary, 2022). Furthermore, it is a powerful mental tool that supports discovering potential answers and identifying solutions to enhance incomplete knowledge in almost every area (Leedy & Ormrod, 2019). Leedy and Ormrod (2019) add that research is the process of informing oneself about what one does not know. Moreover, research is a practical activity that uses proper methods, which anyone conscientiously can perform. In accordance with this background, this applied research project embraces best academic practices to act accordingly to the highest standards to achieve the best results.

### **Research Design**

Research design is critical to performing this project because it is the foundation of a research project. Therefore, Saunders et al.'s (2019) work will be the primary source of knowledge for this research design due to its relevance for Master's business students.

The research design is a critical stage due to its planning profile, which implicates logically organising how the events will undergo the process. Then, by following Saunders et al.'s (2019) methods, this research project is more likely to succeed due to it being possible to predict outcomes and optimise resources.

Overall, it starts by approaching the research onion concept, which has six steps to conduct the research process (Saunders et al., 2020): philosophies, approaches, strategies, choices, time horizons, and techniques and procedures for data analysis and collection.

## **Research Philosophy – Positivism**

The research design starts by defining its philosophical method because the research philosophy provides the most profound background for developing knowledge. It discusses the paradigm in which people live to generate knowledge from a fresh perspective. Therefore, the research philosophy determines a point in time with its current assumptions and beliefs. It is about **how** new knowledge will arise and its circumstances. Hence, the philosophy chooses the momentum and clarifies the context for further steps .

Saunders et al. (2019) consider positivism, critical realism, pragmatism or interpretivism as philosophical choices. However, Positivism is the correct method for this project because it reflects a specific field of expertise related to technological innovation and the recent use of video conference tools by people working from home. Furthermore, positivism commonly relates to quantitative research and embraces a quantitative approach to analysing highly structured data (Bryman, 1998; Walsh et al., 2015). It requires projects to have a well-defined theme and a hypothesis to confirm or deny it. Ultimately, positivism is relevant to this project due to its empirical character. As scientists do, it uses a scientific method to generate measurable and replicable results, which should contribute to additional research in a cycle of knowledge enhancement.

It is vital to reflect on the theme of the research to create meaning and value for the project whilst defining its purpose. The value of the project will arise as long as it develops knowledge, and the more it generates, the higher its value (Saunders et al., 2019).

## **Research Approach – Theory Development by Deduction**

There are two approaches to developing the theory: deduction and induction. The deduction approach involves testing the hypotheses of the research according to a research strategy previously designed. For this project, this step is vital to test the hypotheses based on innovation theories to confirm or reject the hypotheses (Ketokivi

& Mantere, 2010). In contrast, the induction method suggests a hypothesis not previously elaborated, and arises from data analysis (Suddaby, 2006). Thus, the theory arises from the data analysis. Therefore, the deduction method supports this project because this project has a research strategy to test hypotheses.

### **Research Strategy – Survey**

The research strategy is the third onion layer and requires a definition of how the project will conduct research at this stage. Saunders et al. (2019) present various techniques on the research onion, which the study may adhere to depending on the aims of the project. For example, case studies, grounded theories, experiments and more.

This research will rely on a survey as a strategy because it generates primary data. Moreover, it links the philosophy and research data analysis choice (Denzin & Lincoln, 2018). According to Leedy and Ormrod (2019), it is the closest a project can be to the absolute truth because data are dynamic and will illustrate the given moment. Primary data are “The Realm of the Absolute Truth” (Leedy & Ormrod, 2019). On the other hand, secondary data are a data set generated by someone else, which would spare this project from performing a survey. However, whilst there were no similar data in New Zealand, developing primary data and carrying out a survey are meaningful.

Generating data through a survey supports confirmation on whether or not the hypotheses are congruent with the theory. Additionally, it is feasible because this researcher has access to a network with the potential to generate enough responses. Moreover, by performing a survey, the data can develop enough information to explore the hypotheses and fulfil the academic requirements for this project. Finally, whilst it is an applied project, the researcher cannot rely on studying literature as the data source. Therefore, it uses primary data as the data source. If the raw data originate from any third party rather than the researcher, they would be secondary data (Saunders et al., 2019).



## **Research Choice – Mono-Method Quantitative as a Methodological Choice**

The methodological choice of research mirrors the number of data sources and the data types and if the project embraces one data source as straightforward research, whether it is quantitative or qualitative, it is a (single) mono-method. On the other hand, if there are two quantitative and qualitative data sources, it is a mixed-method because both differ and undergo different processes. For example, one data source has percentages of straightforward “yes” and “no” answers, whilst the other is about opinions with open questions and needs interpretation. Alternatively, it can be a multiple-method by using simultaneously various approaches to enrich data collection and fulfil the research goal (Bryman, 1998). For example, this project requires a single survey with closed multiple-choice questions to respondents who do not have to write their opinions. Therefore, this methodological research choice is mono-method quantitative. Moreover, whilst quantitative surveys use questionnaires, structured interviews or structured observations to collect data (Saunders et al., 2019), this research will use an online survey. In contrast, other techniques, such as action research, case study or grounded theory, would fit qualitative analysis.

## **Cross-Sectional Time Horizon**

The time horizon aims to determine the circumstances of the momentum when performing a research project. Thus, projects can embrace the current moment or compare data from different time frames to explore their hypotheses. Accordingly, if a project relates current events with past ones, it is longitudinal; otherwise, if research explores only the present time horizon and does not compare data to different periods, it is cross-sectional (Malholtra et al., 2017). For example, if a study aims to determine the experience of people working from home in recent days, it is cross-sectional. However, suppose a study seeks to compare the experience of people working from home today with results from another study before the pandemic. In that case, it is longitudinal because it observes different momentums. Therefore, this project is cross-sectional research (Saunders et al., 2019).

## **Techniques and Procedures for Data Collection and Data Analysis**

The sixth and last layer of the research onion refers to the practical actions of collecting and processing data. For example, it relates to a digital survey or in-person interviews, how to reach people, determining the sampling type and size, its demographic requirements, and compiling a questionnaire.

### ***Research Strategy - Survey***

This research strategy of this project is to conduct a survey to generate primary data as the only data source. Primarily, this researcher has connections on personal and social media platforms in New Zealand that are likely to provide significant data input. For example, the “IT Brazilian professionals in New Zealand” WhatsApp group has about 250 participants, and LinkedIn network has more than 750 connections, in addition to the in-person network. Secondly, although there was substantial scrutiny, no secondary data set met the requirements of this project. Hence, using primary data was the only option.

### ***Data Sampling - Voluntary Response***

The primary target of this research is adults over 18 living in New Zealand. Therefore, the strategy to reach potential respondents is to access various networks, including online and offline social media platforms. In addition, this researcher encourages the respondents to share the survey throughout their networks to maximise participation. An advantage of this is that using respondents from various sources minimises biases, providing a more accurate picture of the population.

There are numerous sampling techniques. For example, non-random sampling refers to projects with a specific list of accessible respondents who participate. Choosing people who are close is a convenient approach to collecting primary data in an early stage of the project to test the methodology. Thus, with bias, it solves a particular survey stage, like a pilot (Saunders et al., 2020).

Saunders et al. (2019) present a voluntary response sample as another option. Although, this technique implies having no control over who will respond, all respondents volunteer to participate. The advantage is, it enhances the sample quality due to the engagement of respondents (Dillman et al., 2014).

This project requires a “voluntary response sample” as a correct technique to support this research because it does not have control over who will answer the survey. Participation is voluntary. Additionally, this project does not offer respondents any financial reward or gift.

### *Sample size Calculation*

Sampling is vital to researchers because it is a method of representing a population from a smaller scale. The advantage is that the project does not require investigating, for example, the opinion of the whole country, to demonstrate a finding. However, sample calculation requires essential information. First, the population size is the number of people from a country, city, consumers or employees related to the research target. Secondly, the margin of error is vital because it determines the accuracy of the result in its representation. Finally, the confidence level represents how much the population is likely to react according to the results. (Saunders et al., 2020; Survey Monkey, 2022).

For example, according to the latest census, New Zealand has 5.1 million residents (Stats NZ, 2018). Therefore, by adopting a 90 per cent confidence level and five per cent margin error, the researcher can determine a sampling size of 273 people, the number of respondents this project requires to represent its whole population.

Thus, according to Survey Monkey (2022), the calculation works as follows:

Sample Size Formula =  $\frac{[z^2 * p(1-p)]}{e^2} / 1 + \frac{[z^2 * p(1-p)]}{e^2} * N$

Where the symbol “N” represents, the population size, “z” is the z-score, “e” is the margin of error, and “p” is the standard of deviation.

### *Questionnaire*

An online questionnaire will support the survey using Google Forms, or similar software, as a primary and only tool for collecting data. It is a reliable and well-known tool, user-friendly, and free of charge. Moreover, it instantly provides fundamental data analysis that helps save time and resources. In addition, Google Forms generates an Excel file that facilitates data migration, further data analysis and compliance with the academic board.

### *Data Analysis*

As a requirement of a mono-method quantitative research design strategy, the questions are closed, to prevent the user from entering their ideas and to facilitate the data collection to be as simple as possible. Furthermore, there are three categories of questions: general information, demographic data, and VC and WFH experience. Although most questions have a single answer, a few have multiple choices, for example, for each VC platform the respondent knows (Zoom, Skype, Team and others), they are able to choose one or more options. In addition, the survey gives respondents levels of agreeing/disagreeing with statements. Finally, no writing is necessary to address its quantitative research profile.

For data analysis, this project will determine the correlation between questions, which is vital to evaluate their relationship and explore the hypotheses in depth. Saunders et al. (2019) state that the correlation relationship ranges from -1 to +1 to measure their intensity. Thus, the correlation at -1 represents “perfect negative”; at +1, it is “perfect positive”, and “perfect independent” at zero. In conjunction, this project uses the Microsoft Excel software to support data processing because it facilitates mathematical/logical calculation and delivers data insight. Furthermore, this is a benchmark software in the research industry as it guarantees high accuracy and quality in data processing and analysis. This analysis is a primary requirement to support the findings that the data collection might generate when confronting the hypotheses.

Finally, the questionnaire should take up to seven minutes for respondents to complete, all respondents are anonymous, and no personal information will be required throughout

the survey. With regard to ethics, all participants are anonymous, and no individual answer links to a specific participant whilst writing this project. Furthermore, all participation is voluntary, and once respondents start completing the questionnaire, they can stop at any time if they wish to.

## Chapter 4 – Data analysis

### Introduction

This chapter will present an online survey, its data collection process, data analysis criteria, findings and insights. Whilst previous chapters introduced the project background, literature review and research techniques, this chapter contextualises the data collection process, comprising location, time frame and resources. In addition, participants' profiles will be contextualised in terms of demographic features, such as academic achievement, profession, relationship status, family structure, and experience with video conferencing (VC) and working from home (WFH). First, it will start with a high-level interpretation of these features before performing correlation throughout the data analysis to generate in-depth insights and, therefore, unveiling findings that otherwise would not be possible. For example, by dividing people per profession and age band to verify how each category relates to the digital experience and their professional performance, this enables a sophisticated comparison to generate findings that high-level analysis cannot reach.

Throughout the data analysis processes, calculating the correlation between variables is crucial to demonstrate accuracy whilst comparing variables, and also, to observe if it implicates causation. About correlation and causation, a clarification: “correlation is not causation”. Just because two things correlate does not necessarily mean that one causes the other. For example, people in the northern hemisphere usually buy more gifts in the winter than in summer. However, this does not mean that cold weather makes people go shopping. Rather, cold weather is more likely to coincide with Christmas and New Year sales (Green, 2012).

This project approaches Pearson's correlation coefficient, as represented by the “ $r$ ” symbol. Correlations can be positive or negative on a scale from “1”, determining a perfect correlation, and “-1”, a perfect negative. Reaching “0” on the scale's centre determines no correlation. Moreover, correlations are low, moderate or strong depending on how close they are to the edges or the centre (ABS, 2013).

## **Data collection**

The data collection took place from the 5<sup>th</sup> of September to the 17<sup>th</sup> of October 2022. The research required a sample size of 273 people to represent the population of New Zealand, with a confidence level of 90 per cent. However, the survey reached 306 participants. This is an excellent achievement because it enhances confidence from 90 to 95 per cent. Most respondents lived in Auckland, however, people from other large cities like Wellington and Christchurch also joined the survey.

The mechanisms used to generate respondents included posts on social media platforms like LinkedIn, WhatsApp and Facebook. Social activities included contacting friends and tertiary colleagues, asking people for referrals, reaching out to neighbours and parents at our local primary school, developing office conversations, and participating in in-person networking, professional and social events. In addition, networking included a “snowball” technique, encouraging participants to extend the survey throughout their networks (Cambridge Dictionary, 2022).

The networking activities mainly reached people from the ICT sector, determining the largest group, with 50.6 per cent of the total. The following most significant professions were Education, Construction, HR & Recruitment, Real Estate, Sales and Marketing, comprising about 25 per cent of participants. The remaining, with about 70 different professions, comprised the remaining 25 per cent of participants and will be grouped as “Others”. This resulted in three large groups, representing 50 per cent, 25 per cent and 25 per cent of respondents, respectively. During the data analysis, numerous profiles will emerge, with the mission of comparing and contrasting their behaviours to reveal the findings. For example, “No-children” for professionals without children; “Large Families” for those with three or more children; “Education” for educators; and “All”, which includes all 306 participants.

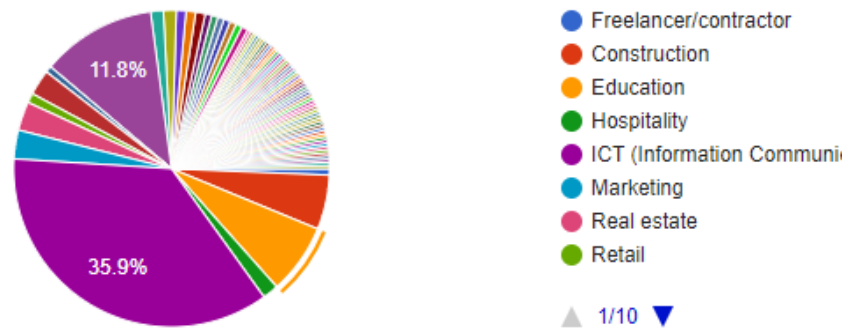
## **Participants’ profiles**

The participants’ profiles feature highly diverse areas, contributing to the quality sample size. Whilst half of them belonged to the ICT industry, the contrasting occupations of the others should amend this bias. For example, people from Education,

Recruitment, Construction, Aerospace, Government, Health, Agriculture, Hospitality, Manufacturing, Primary Industry, Finance, Insurance, Security and more are among the different professions recorded (figure 4.1), thereby contributing to the survey's quality, ensuring the reliability of findings and adequately representing the New Zealand Population.

**Figure 4.1**

*Which industry do you work in?*



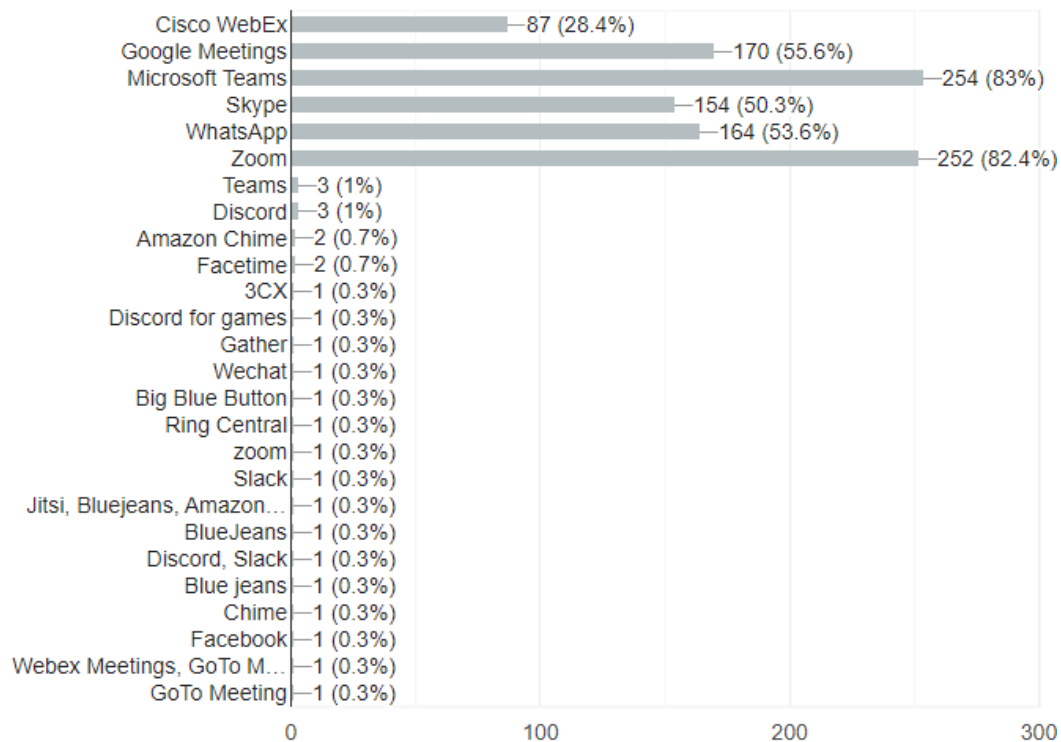
## Respondents' profiles

Initially, the survey illustrates the respondents' awareness of the most common VC software, highlighting Microsoft Teams and Zoom as the leading ones, with both achieving about 83 per cent of awareness. The next highest brand awareness are: Skype, WhatsApp and Google Meetings, ranging from 51 per cent to 54 per cent, ahead of Cisco WebEx with 29 per cent of awareness. This confirms that most VC software mentioned throughout the literature review still leads the industry, matching this finding. In addition, numerous other software formats are mentioned, such as Slack, Amazon Chime and Facetime. However, they are irrelevant to the survey, as they represent only about five per cent of awareness (figure 4.2).



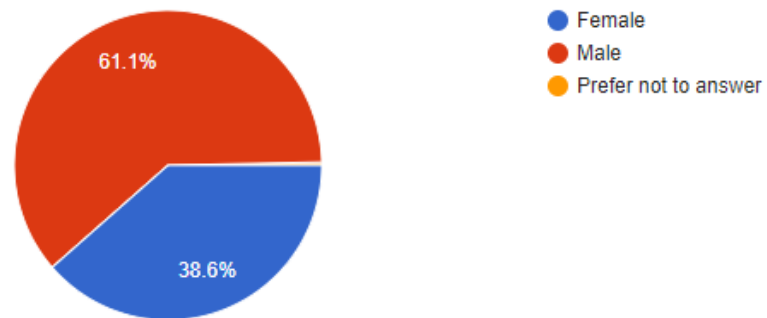
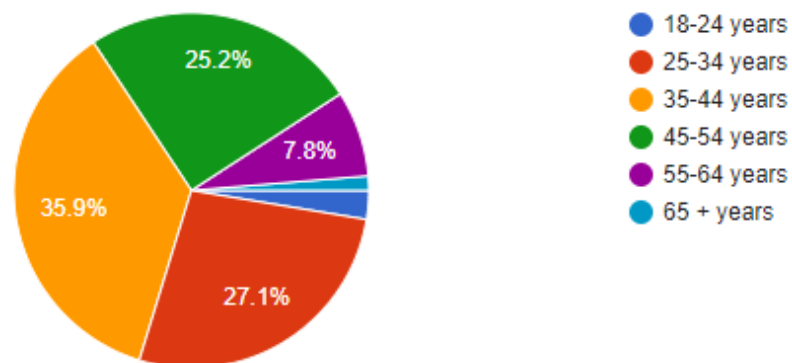
**Figure 4.2**

*Which Video Conference platform/s are you aware of?*



The research reveals the respondents' intention to use VC. According to 84.6 per cent of respondents, their primary use of VC is for work, whilst 8.7 per cent is for study, and 6.7 per cent is for social activities, demonstrating its strong relevance to businesses.

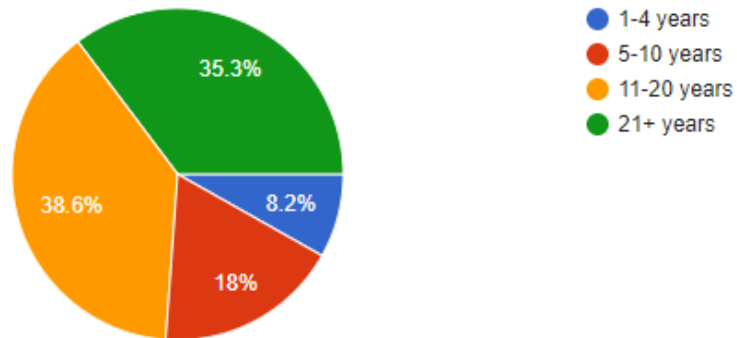
Regarding the participants' profiles, 61 per cent are male, 39 per cent are female (figure 4.3), and three major age groups are represented. The largest group embraces the 35-44 years' age band with 35 per cent, followed by people aged 18-34 years and 45-54 years with 30 per cent and 25 per cent of responses respectively. Finally, people 55 and over are 10 per cent of the respondents (figure 4.4).

**Figure 4.3***What is your gender?***Figure 4.4***What is your age band?*

Regarding the education level, there are two groups with about 20 per cent of respondents each, representing the highest education level, with Post-Graduates, Masters and PhDs. However, the largest group comprised Bachelor degrees, with 38.6 per cent of participants. Therefore, 75 per cent of respondents have higher education, compared to the other 15 per cent with either secondary school or a diploma level education. Additionally, three-quarters of respondents are divided equally between people working professionally for 11-20 years, and more than 21 years. In contrast, the minor group has 8.2 per cent of respondents with one to four years of professional experience and 18 per cent with five to 10 years (figure 4.5).

**Figure 4.5**

*How many years have you been working professionally?*

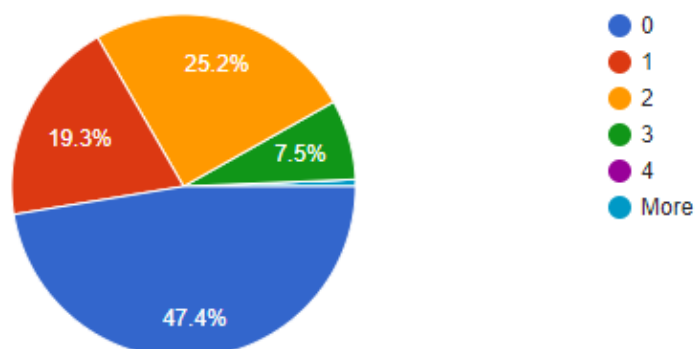


For the employment situation, the vast majority have full-time employment, at 82 per cent, which contrasts with six per cent and five per cent with part-time jobs, and study and work, respectively.

Concluding the profile section, 83 per cent are in married/de facto relationships, which relates to the same number of full-time workers and contrasts with the minority of 14 per cent of singles, and a few (three per cent) of divorcees. However, although most are married, 2/3 are equally distributed under the 25-54 age band; 47 per cent have no children, 44.7 per cent have one or two children, and eight per cent have three, four or more. Most respondents are full-time employees with extensive professional experience and are married, whereas most use VC primarily for work. Half have no children, and the other half have at least one child. However, all of them have studied ranging from secondary school to PhD level, with bachelors, post-graduates and masters comprising the vast majority of participants.

**Figure 4.6**

*How many children under 18 do you have?*



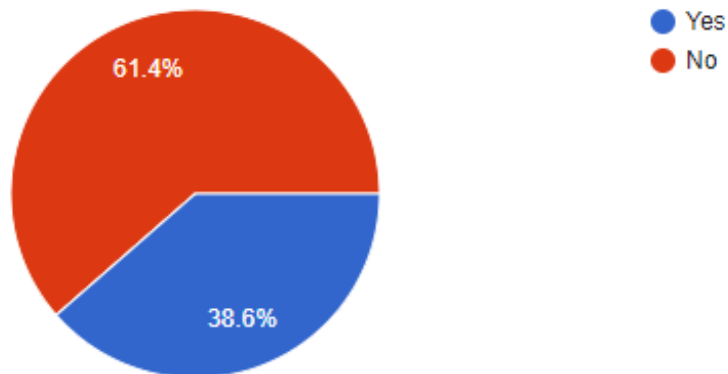
## WFH and society's behaviour change

In addition to the participant's profile, the following questions aim to clarify how people have interacted with VC whilst WFH since the pandemic. It aims to clarify their perception of work-life balance, career advancement and working habits. As a result, it will enable insights into the VC and WFH experience and how they relate to digital innovation, which is this project's aim. The first three questions intend to contextualise people's WFH behaviours before and after the pandemic, and determine if those previously WFH increased their frequency.

For the question, "**Did you WFH before the pandemic?**" the survey reveals that 38.6 per cent of participants used WFH before the pandemic (figure 4.7).

**Figure 4.7**

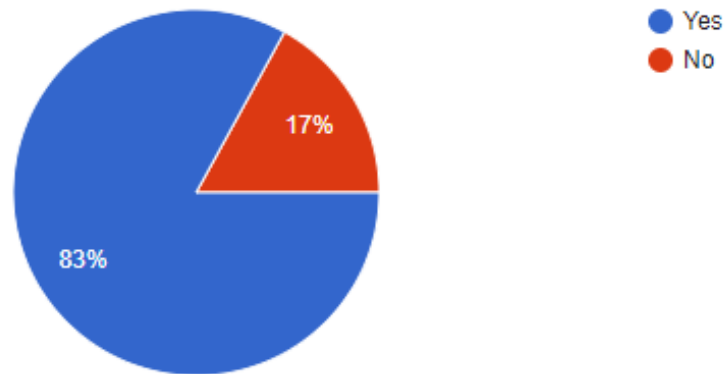
*Did you work from home before the pandemic?*



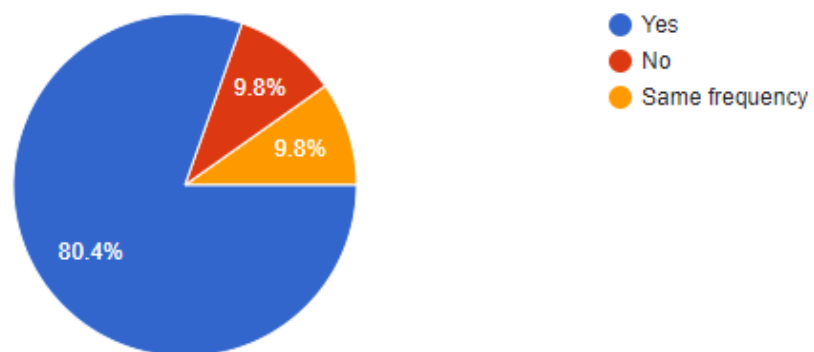
However, for the question "**Do you WFH since the pandemic?**", 83 per cent of them do. Moreover, a similar question, "**Do you WFH more frequently since the pandemic?**" shows that 9.8 per cent remain the same, whilst 80.4 per cent have increased the frequency (figures 4.8 and 4.9).

**Figure 4.8**

*Do you Work From Home since the pandemic?*

**Figure 4.9**

*Do you Work From Home more frequently since the pandemic?*



Of the 61.4 per cent that did not WFH before the pandemic in answer to the first question, only 9.8 per cent currently do not. This is a highly relevant finding to determine that VC and WFH determine a society's behaviour change whilst confirming the first hypothesis, **H1<sup>o</sup>: Using VC whilst WFH influences a society's behaviour change.**

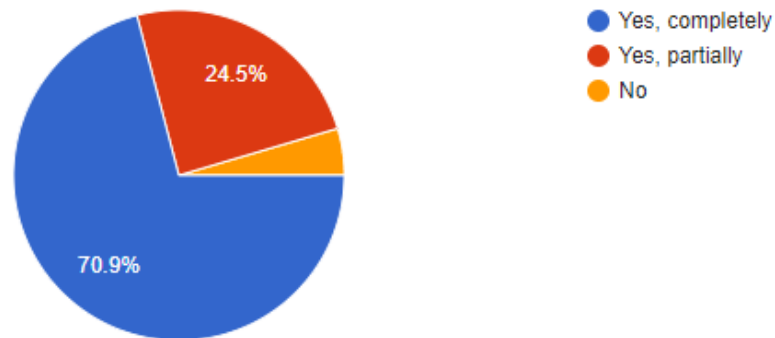
### **Working from home and productivity**

The next question asks participants to what extent VC has supported them since the pandemic to WFH. "**Does VC support you to WFH since the pandemic?**" Again, the vast majority agree with the VC support, whereas 70.9 per cent agree completely, 24.5 per cent agree partially, and only five per cent disagree (figure 4.10). This feedback

endorses the previous question by determining the relevance of VC for people WFH whilst determining a paradigm shift. It contrasts opposite realities: whereas, before the pandemic, most people did not work remotely (figure 4.7), nowadays, most people do this with the support of VC.

**Figure 4.10**

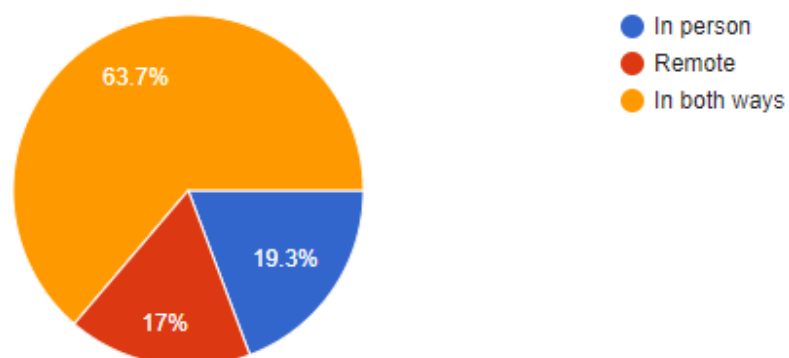
*Does video conferencing support you working remotely since the pandemic?*



A central concern whilst building the questionnaire was organising participants' inputs into storytelling. For example, why ask them if they perform better at work in person, remotely or a combination of both? Suppose that people shift from in-person to remote work; would this indicate that people would prefer never to go to the office again? Or would people not want to WFH as soon as they have the opportunity to go back to the office? "**Do you perform better at work...**" For this question, most people (63.7 per cent) prefer a hybrid mode, whilst 17 per cent prefer remote only (figure 4.11). It indicates that people like WFH whilst recognising that going to the office is necessary.

**Figure 4.11**

*Do you perform better at work...*

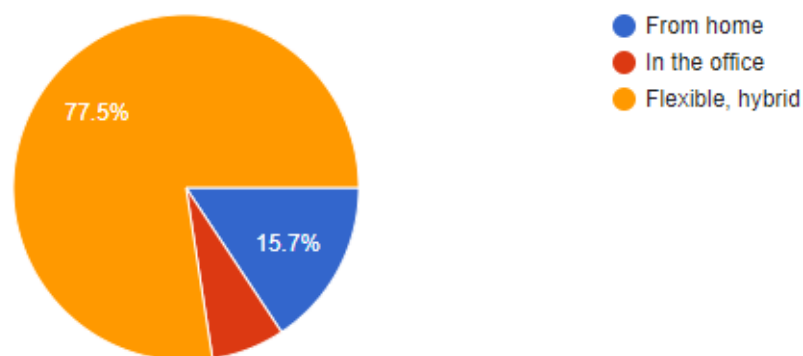


For “**Do you perform better at work...**”, 19.3 per cent prefer in-person work. As it happens, a similar number of respondents did not WFH since the pandemic, at 17 per cent (figure 4.8). That raises a question of whether people not WFH since the pandemic prefer in-person work rather than any other option. Moreover, among the respondents are people from Education, Construction, Sales, Retail and Hospitality industries, which are closely related to in-person performance. Therefore, 19.3 per cent preferring “in-person” work sounds like a plausible representation of the population. In parallel, “how people prefer to work” relates to performance, which links to a research question “**Does using VC whilst WFH correlate with productivity?**”.

The next question, “**Do you consider it worthwhile to keep working...**” complements this by asking if people prefer to keep working remotely, in the office, or within a flexible, hybrid mode. The responses revealed most people prefer the hybrid mode, with 77.5 per cent of respondents, in contrast to 6.9 per cent preferring to work in the office. In parallel, the remaining 15.7 per cent choose to keep working remotely, which matches the previous question and reinforces evidence about behaviour change and remote work contributing to performance enhancement (figure 4.12).

**Figure 4.12**

*Do you consider it worthwhile to keep working...*



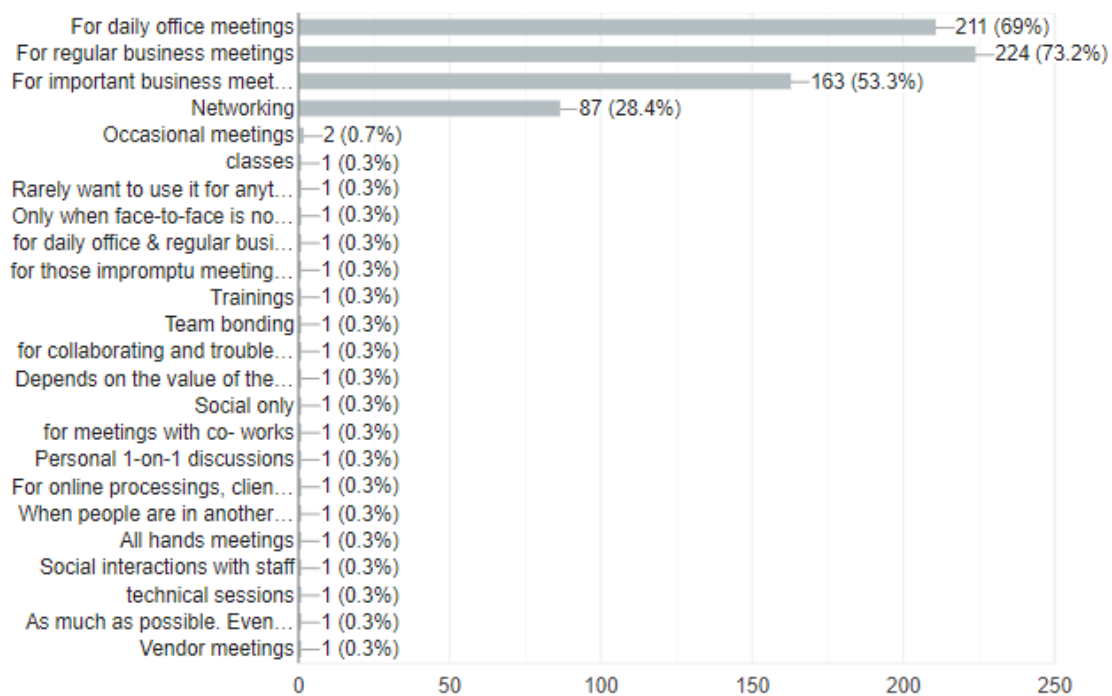
About productivity, a question investigates which activities participants consider worthwhile performing by VC, by giving them multiple choices. For example, “daily” and “regular office meetings” shifted from 69 per cent to 73 per cent of votes, the majority. Furthermore, “for important business meetings” had 53 per cent, followed by

“networking” with 28 per cent of votes (figure 4.13). This question indicates that people feel comfortable performing VC for regular business activities.

Therefore, this evidence confirms the third hypothesis, **H3<sup>o</sup>: Using VC whilst WFH correlates with productivity.**

**Figure 4.13**

*Which of the following do you consider worthwhile performing Video Conferencing for...*



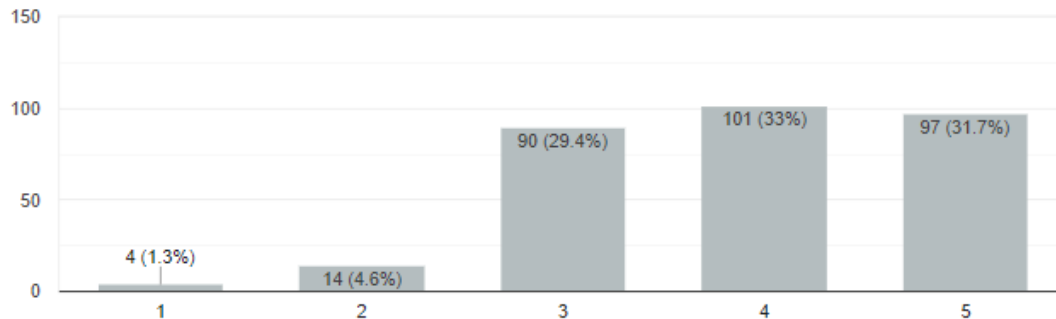
### Improving work-life balance and advancing career

The respondents also shared their perceptions about improving their work-life balance in the next group of questions. For example, the question, “**How much would you say your work-life balance has improved since the pandemic?**” measured on a scale from one to five if it significantly improved or worsened. Whilst 29.4 per cent gave a neutral response, about 65 per cent disclosed that work-life balance had “improved” or “significantly improved”. In contrast, only about 5.9 per cent negatively perceived work-life balance improvement (figure 4.14).



**Figure 4.14**

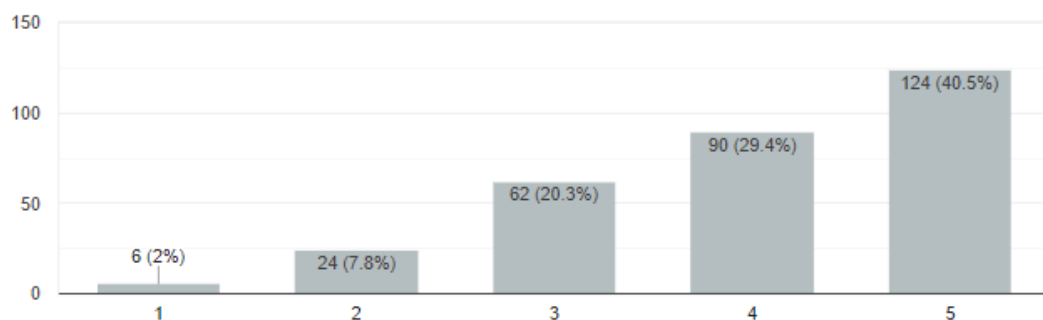
*How much would you say your work-life balance has improved since the pandemic?*



Still exploring the work-life balance perspective comes the question, “**How much do you like WFH?**” measuring from “extremely dislike it” to “extremely like it”. In response, 40 per cent “extremely like it”, another 30 per cent “like it”, whilst 20 per cent are neutral, eight per cent “dislike it”, and only two per cent “extremely dislike it” (figure 4.15).

**Figure 4.15**

*How much do you like Working From Home?*

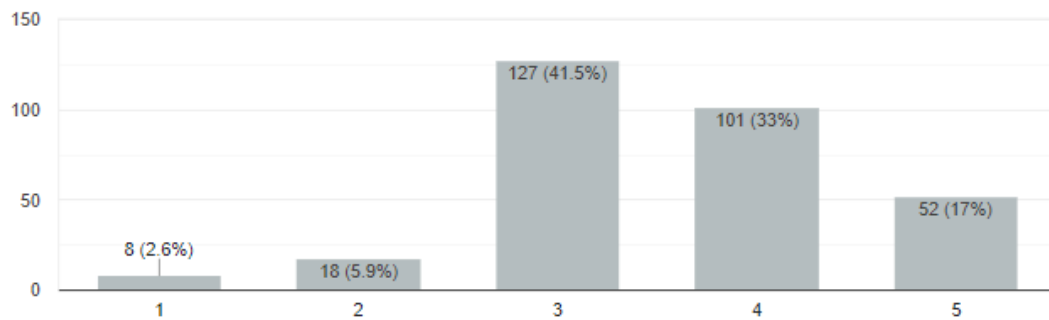


Having 70 per cent of participants appreciating WFH is a significant number to demonstrate behaviour change towards work-life balance, albeit that it contrasts with the responses about people advancing or setting back their career whilst WFH. For the question “**How much have you advanced in your career whilst WFH?**” 41.5 per cent were neutral. Those whose careers were jeopardised were 8.5 per cent, whereas 2.6 per cent had many setbacks and 5.9 per cent had some setbacks. In contrast, 33 per cent had “advanced”, and 17 per cent had “extremely advanced”. Remarkably, in summary 49

per cent of people advanced professionally or, from the opposite point of view, 91.5 per cent experienced no professional harm in the period (figure 4.16).

**Figure 4.16**

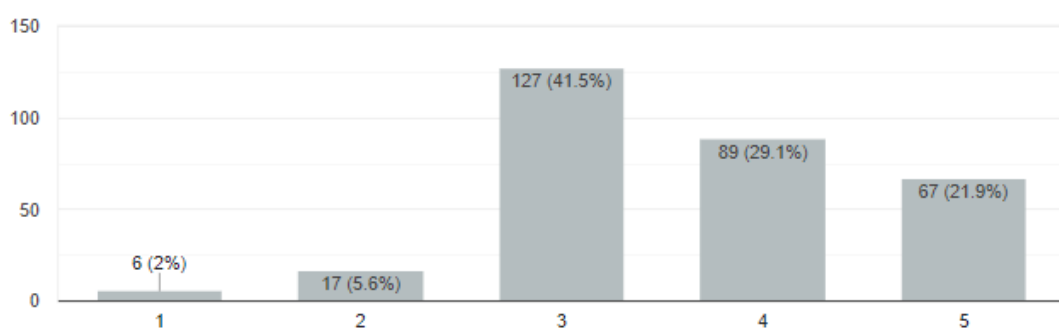
*How much have you advanced in your career whilst Working From Home?*



Following on from the previous question, participants responded to, “**Which impact do you consider VC has had on your career advancement whilst working remotely?**” In comparison, the scale from “a highly negative impact” to “a highly positive impact” had very similar responses to the previous graphic (figure 4.16). Now, two per cent considered having had “highly negative” and 5.6 per cent “negative” impacts. Similarly, 41.5 per cent were neutral, with a slight decrease to 29 per cent of “positive” and an increase from 17 per cent to 21.9 per cent of “highly positive” (figure 4.17). This indicates people attributed significant value to VC practices whilst WFH since the pandemic; even those whose careers were jeopardised tended to perceive more value in VC.

**Figure 4.17**

*Which impact do you consider VC has had on your career advancement whilst working remotely?*



After this analysis, there is enough evidence to demonstrate that a significant share of those WFH advanced their careers, with a clear perception of VC supporting them. Career advancement is strong evidence of productivity. Otherwise, organisations might have had enough time to make non-productive employees redundant. Therefore, it confirms the third hypothesis, **H3<sup>o</sup>: Using VC whilst WFH correlates with productivity.**

### **Correlation between work-life balance and WFH**

Regarding work-life balance, the recent literature reveals a negative dimension of WFH associated with exhaustion, fatigue and anxiety, which relates to people lacking sound habits at home (Maqsood et al., 2021; Okabe-Miyamoto et al., 2021). Therefore, the survey considers their routines to determine how often participants take a break to stretch, exercise or relax. Therefore, six options allow participants to share if and how often they have break times during their working hours, showing that a majority of 32 per cent have a break “every now and again” in contrast to five per cent that “do not do this”. Moreover, 17 per cent stop only for lunch, followed by 16 per cent for “every 90 minutes”, whilst 12 per cent and 11 per cent are for those who take a break “just eventually” and “every 60 minutes” respectively. These numbers indicate only that most people regularly have some time to themselves, which is too vague to assume that this correlates with stress or anxiety. However, “**How much would you say your work-life balance has improved since the pandemic?**” and “**How much do you like WFH?**” positively correlate  $r = .48$  (figure 4.18). In parallel, whilst approaching only those that take a break “every 90 minutes” or “every now and again”, this number slightly increases to  $r = .49$  (figure 4.19).

**Figure 4.18**

Take a break “All”.

	A	B	C	D	E
1		15. How much would you say your work-life balance has improved since the pandemic?	16. How much do you like Working from Home?	17. Have you advanced in your career while Working from Home?	18. Which impact do you consider Video Conferencing has had on your career advancement while working
2	15. How much would you say your work-life balance has improved since the pandemic?	1			
3	16. How much do you like Working from Home?	0.48	1		
4	17. Have you advanced in your career while Working from Home?	0.38	0.38	1	
5	18. Which impact do you consider Video Conferencing has had on your career advancement while working?	0.33	0.34	0.44	1
6					
7	<b>People take a break</b>				

Similarly, “Which impact do you consider VC has had on your career advancement whilst WFH?” and “Have you advanced in your career whilst WFH?” has a positive variation from  $r = .44$  to  $r = .45$  when compared with those who take a break “every now and again” (figure 4.19).

**Figure 4.19**

Take a break “Every now and again”.

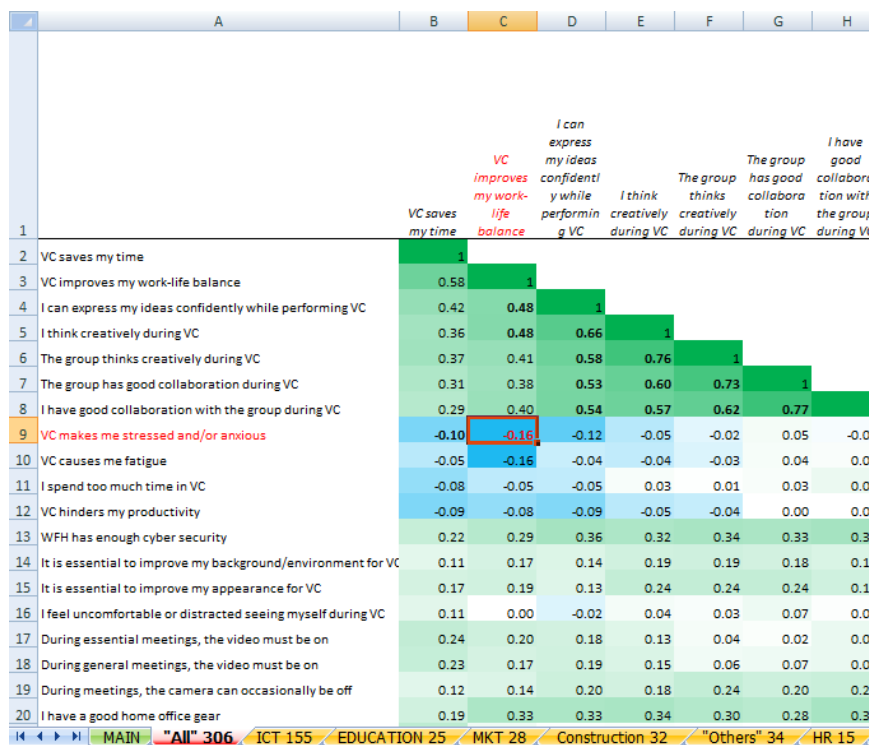
	A	B	C	D	E
1		15. How much would you say your work-life balance has improved since the pandemic?	16. How much do you like Working from Home?	17. Have you advanced in your career while Working from Home?	18. Which impact do you consider Video Conferencing has had on your career advancement while working
2	15. How much would you say your work-life balance has improved since the pandemic?	1			
3	16. How much do you like Working from Home?	0.49	1		
4	17. Have you advanced in your career while Working from Home?	0.40	0.38	1	
5	18. Which impact do you consider Video Conferencing has had on your career advancement while working?	0.32	0.34	0.45	1
6					
7	<b>People take a break "every now and again"</b>				

As a result, these moderate positive correlations confirm the fourth hypothesis, **H4<sup>o</sup>: Using VC whilst WFH improves work-life balance.**

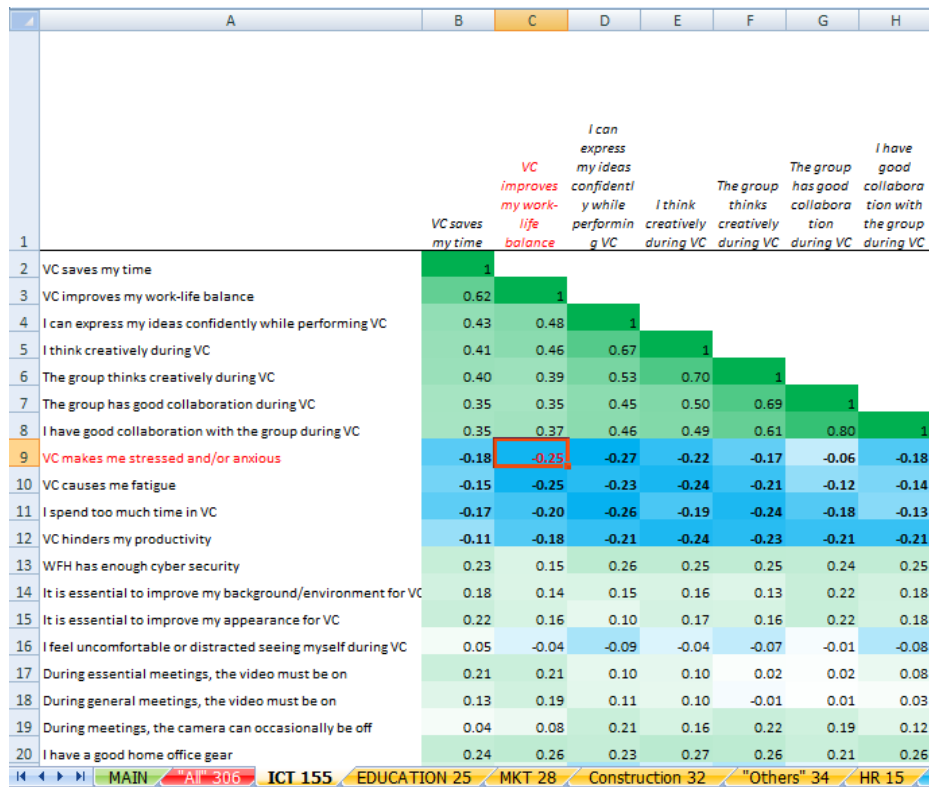
A further analysis evaluates the correlation between the questions “**VC improves my work-life balance**” with “**VC makes me stressed and/or anxious**”. It starts with a low negative correlation of  $r = -.16$  (figure 4.20) for “All”, which lowers to  $r = -.25$  for ICT (figure 4.21), turns a negative moderate for “Marketing” with  $r = -.37$  (figure 4.22), and a strong negative of  $r = -.58$  for “HR/Recruiters” (figure 4.23).

Therefore, the negative correlation for the groups “All”, “ICT”, “Marketing”, and “HR/Recruiters” confirms the fourth hypothesis, **H4<sup>o</sup>: Using VC whilst WFH improves work-life balance.**

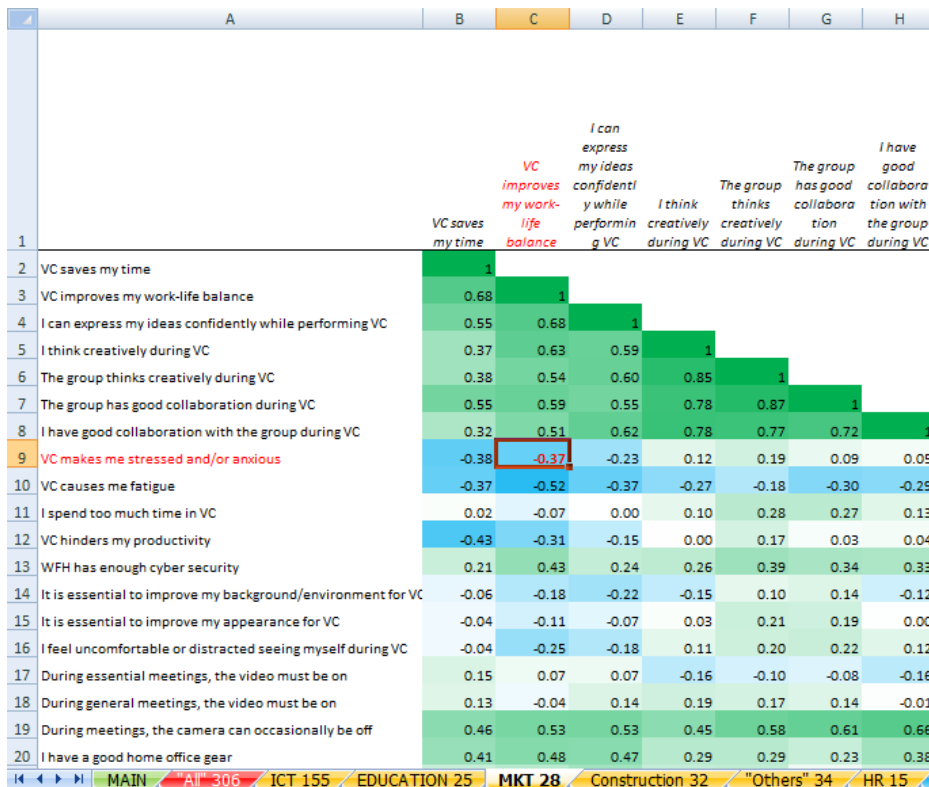
**Figure 4.20**  
Group “All”.



**Figure 4.21**  
Group “ICT”.



**Figure 4.22**  
Group “Marketing”.



**Figure 4.23**  
Group “HR/Recruitment”.

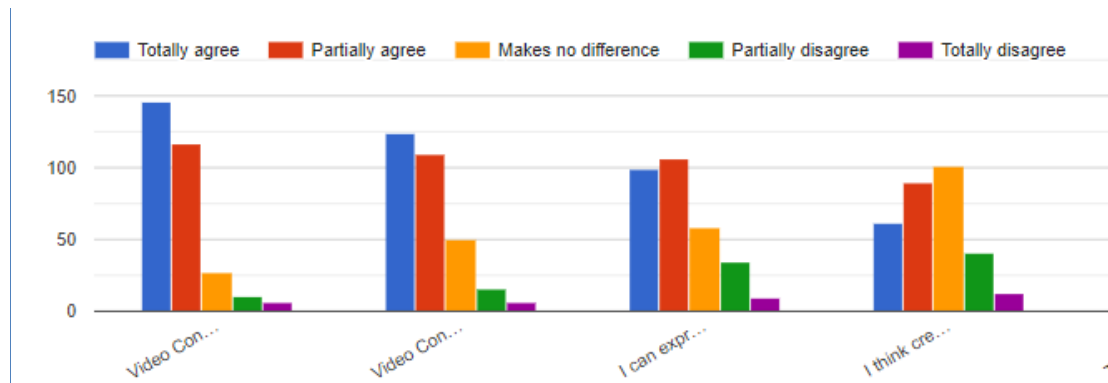
	A	B	C	D	E	F	G	H
			VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC
1		VC saves my time						
2		1						
3		0.73	1					
4		0.27	0.51	1				
5		0.38	0.73	0.22	1			
6		0.45	0.69	0.27	0.92	1		
7		-0.02	0.16	0.25	0.43	0.60	1	
8		-0.22	0.01	0.42	0.23	0.24	0.55	1
9		-0.67	-0.58	-0.28	-0.33	-0.46	-0.07	0.22
10		-0.45	-0.40	-0.43	0.02	-0.11	0.03	0.14
11		-0.51	-0.28	0.00	0.00	-0.07	-0.23	0.18
12		-0.44	-0.43	-0.29	-0.33	-0.37	-0.01	-0.12
13		0.14	0.40	0.28	0.43	0.44	0.24	0.44
14		-0.27	0.11	0.24	0.29	0.16	0.02	0.25
15		0.03	0.37	0.22	0.49	0.52	0.43	0.25
16		-0.19	-0.06	-0.37	0.00	-0.17	-0.17	-0.26
17		0.00	-0.18	0.07	-0.13	-0.05	-0.08	0.13
18		0.37	-0.04	0.03	-0.20	-0.07	-0.22	-0.26
19		-0.11	0.08	0.05	0.04	-0.16	-0.02	0.37
20		-0.27	-0.42	0.25	-0.26	-0.08	0.27	0.63

**Correlating VC and WFH with stress and anxiety**

The final questions section relates to the VC experience, with twenty-five questions for participants to agree or disagree to on a five-step scale from “totally agree” to “totally disagree” (figure 4.24). For this, general questions aim to measure the usefulness of VC, such as “VC saves my time”, “VC improves my work-life balance”, “It is easy to access VC”, and so on. Others aim to evaluate the impact of stress and observe if it relates to anxiety and fatigue, and also the challenges related to VC and WFH. Some questions are straightforward, such as “VC makes me stressed and/or anxious”, and others are subliminal, like “I feel uncomfortable or distracted seeing myself during VC”.

**Figure 4.24**

*How much do you agree or disagree with the following statements?*



To achieve this, the author will correlate the complete data set by approaching different profiles—for example, gender, industry and age band—and present empirical evidence after scrutinising these groups, as follows:

After correlating the whole data set for these questions, there are positive and negative correlations between VC and stress and anxiety. For example, for “All”, there is a low negative correlation between “**VC makes me stressed and/or anxious**” and “**VC saves my time**” of  $r = -.10$ , which means that when people acknowledge that VC saves their time, it does not implicate them being stressed and anxious (figure 4.25). However, results change when investigating the same result related to different profiles. For example, the “ICT” group has a low negative correlation of  $r = -.18$  (figure 4.26). However, it significantly drops for “Education” to  $r = -.41$  (figure 4.27), demonstrating a moderate correlation. Finally, there is a strong negative correlation of  $r = -.67$  for “HR/Recruiters” (figure 4.28).



Figure 4.25

Group "All".

	A	B	C	D	E	F	G	H
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC
1		1						
2	VC saves my time	1						
3	VC improves my work-life balance	0.58	1					
4	I can express my ideas confidently while performing VC	0.42	0.48	1				
5	I think creatively during VC	0.36	0.48	0.66	1			
6	The group thinks creatively during VC	0.37	0.41	0.58	0.76	1		
7	The group has good collaboration during VC	0.31	0.38	0.53	0.60	0.73	1	
8	I have good collaboration with the group during VC	0.29	0.40	0.54	0.57	0.62	0.77	1
9	VC makes me stressed and/or anxious	-0.10	-0.16	-0.12	-0.05	-0.02	0.05	-0.01
10	VC causes me fatigue	-0.05	-0.16	-0.04	-0.04	-0.03	0.04	0.03
11	I spend too much time in VC	-0.08	-0.05	-0.05	0.03	0.01	0.03	0.08
12	VC hinders my productivity	-0.09	-0.08	-0.09	-0.05	-0.04	0.00	0.00
13	WFH has enough cyber security	0.22	0.29	0.36	0.32	0.34	0.33	0.36
14	It is essential to improve my background/environment for VC	0.11	0.17	0.14	0.19	0.19	0.18	0.15
15	It is essential to improve my appearance for VC	0.17	0.19	0.13	0.24	0.24	0.24	0.19
16	I feel uncomfortable or distracted seeing myself during VC	0.11	0.00	-0.02	0.04	0.03	0.07	0.01
17	During essential meetings, the video must be on	0.24	0.20	0.18	0.13	0.04	0.02	0.08
18	During general meetings, the video must be on	0.23	0.17	0.19	0.15	0.06	0.07	0.08
19	During meetings, the camera can occasionally be off	0.12	0.14	0.20	0.18	0.24	0.20	0.21
20	I have a good home office gear	0.19	0.33	0.33	0.34	0.30	0.28	0.35

Figure 4.26

Group "ICT".

	A	B	C	D	E	F	G	H
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC
1		1						
2	VC saves my time	1						
3	VC improves my work-life balance	0.62	1					
4	I can express my ideas confidently while performing VC	0.43	0.48	1				
5	I think creatively during VC	0.41	0.46	0.67	1			
6	The group thinks creatively during VC	0.40	0.39	0.53	0.70	1		
7	The group has good collaboration during VC	0.35	0.35	0.45	0.50	0.69	1	
8	I have good collaboration with the group during VC	0.35	0.37	0.46	0.49	0.61	0.80	1
9	VC makes me stressed and/or anxious	-0.18	-0.25	-0.27	-0.22	-0.17	-0.06	-0.18
10	VC causes me fatigue	-0.15	-0.25	-0.23	-0.24	-0.21	-0.12	-0.14
11	I spend too much time in VC	-0.17	-0.20	-0.26	-0.19	-0.24	-0.18	-0.13
12	VC hinders my productivity	-0.11	-0.18	-0.21	-0.24	-0.23	-0.21	-0.21
13	WFH has enough cyber security	0.23	0.15	0.26	0.25	0.25	0.24	0.25
14	It is essential to improve my background/environment for VC	0.18	0.14	0.15	0.16	0.13	0.22	0.18
15	It is essential to improve my appearance for VC	0.22	0.16	0.10	0.17	0.16	0.22	0.18
16	I feel uncomfortable or distracted seeing myself during VC	0.05	-0.04	-0.09	-0.04	-0.07	-0.01	-0.08
17	During essential meetings, the video must be on	0.21	0.21	0.10	0.10	0.02	0.02	0.08
18	During general meetings, the video must be on	0.13	0.19	0.11	0.10	-0.01	0.01	0.03
19	During meetings, the camera can occasionally be off	0.04	0.08	0.21	0.16	0.22	0.19	0.12
20	I have a good home office gear	0.24	0.26	0.23	0.27	0.26	0.21	0.26

**Figure 4.27**  
Group “Education”.

	A	B	C	D	E	F	G	H
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC
1		1						
2	VC saves my time	1						
3	VC improves my work-life balance	0.38	1					
4	I can express my ideas confidently while performing VC	0.43	0.36	1				
5	I think creatively during VC	0.52	0.43	0.74	1			
6	The group thinks creatively during VC	0.34	0.51	0.72	0.70	1		
7	The group has good collaboration during VC	0.27	0.39	0.79	0.81	0.80	1	
8	I have good collaboration with the group during VC	0.28	0.36	0.86	0.72	0.69	0.91	1
9	VC makes me stressed and/or anxious	-0.41	0.05	0.05	0.08	0.20	0.24	0.16
10	VC causes me fatigue	-0.06	-0.13	0.32	0.29	0.23	0.35	0.33
11	I spend too much time in VC	-0.10	-0.17	0.07	0.03	0.08	0.15	0.04
12	VC hinders my productivity	-0.28	-0.06	-0.05	0.10	0.11	0.28	0.20
13	WFH has enough cyber security	-0.22	0.44	0.09	0.13	0.35	0.36	0.30
14	It is essential to improve my background/environment for VC	0.13	0.32	-0.14	-0.06	0.12	-0.02	-0.11
15	It is essential to improve my appearance for VC	-0.08	0.31	-0.10	-0.07	0.09	-0.02	-0.04
16	I feel uncomfortable or distracted seeing myself during VC	-0.43	0.02	-0.30	-0.25	-0.01	-0.01	-0.06
17	During essential meetings, the video must be on	0.40	0.21	0.32	0.20	-0.01	0.07	0.20
18	During general meetings, the video must be on	0.31	0.14	0.29	0.13	0.00	0.09	0.26
19	During meetings, the camera can occasionally be off	0.13	0.07	0.30	-0.06	0.12	-0.11	0.03
20	I have a good home office gear	0.11	0.28	0.16	0.27	0.29	0.20	0.24

**Figure 4.28**  
Group “HR/Recruitment”.

	A	B	C	D	E	F	G	H
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC
1		1						
2	VC saves my time	1						
3	VC improves my work-life balance	0.73	1					
4	I can express my ideas confidently while performing VC	0.27	0.51	1				
5	I think creatively during VC	0.38	0.73	0.22	1			
6	The group thinks creatively during VC	0.45	0.69	0.27	0.92	1		
7	The group has good collaboration during VC	-0.02	0.16	0.25	0.43	0.60	1	
8	I have good collaboration with the group during VC	-0.22	0.01	0.42	0.23	0.24	0.55	1
9	VC makes me stressed and/or anxious	-0.67	-0.58	-0.28	-0.33	-0.46	-0.07	0.22
10	VC causes me fatigue	-0.45	-0.40	-0.43	0.02	-0.11	0.03	0.14
11	I spend too much time in VC	-0.51	-0.28	0.00	0.00	-0.07	-0.23	0.18
12	VC hinders my productivity	-0.44	-0.43	-0.29	-0.33	-0.37	-0.01	-0.12
13	WFH has enough cyber security	0.14	0.40	0.28	0.43	0.44	0.24	0.44
14	It is essential to improve my background/environment for VC	-0.27	0.11	0.24	0.29	0.16	0.02	0.25
15	It is essential to improve my appearance for VC	0.03	0.37	0.22	0.49	0.52	0.43	0.25
16	I feel uncomfortable or distracted seeing myself during VC	-0.19	-0.06	-0.37	0.00	-0.17	-0.17	-0.26
17	During essential meetings, the video must be on	0.00	-0.18	0.07	-0.13	-0.05	-0.08	0.13
18	During general meetings, the video must be on	0.37	-0.04	0.03	-0.20	-0.07	-0.22	-0.26
19	During meetings, the camera can occasionally be off	-0.11	0.08	0.05	0.04	-0.16	-0.02	0.37
20	I have a good home office gear	-0.27	-0.42	0.25	-0.26	-0.08	0.27	0.63

It means that for “All”, “ICT”, and “Education”, people believe that VC saves time, and they disagree that it causes stress and/or anxiety, especially for “HR/Recruitment”, where the negative correlation is even stronger. Therefore, VC relieves people from stress and anxiety by saving them time. These negative correlations confirm the second hypothesis, **H2<sup>o</sup>: Using VC whilst WFH correlates with stress and anxiety.**

Additionally, there are further positive correlations between “**I feel uncomfortable or distracted seeing myself during VC**” with “**VC makes me stressed and/or anxious**” and “**VC causes me fatigue**”. For “All”, they are  $r = .50$  and  $r = .43$ , respectively (figure 4.29). However, this reduces to  $r = .35$ , and  $r = .33$  for “ICT” (figure 4.30), and to  $r = .31$ , and  $r = .37$  for “No Child” (figure 4.31). In contrast, they scale to  $r = .68$ , and  $r = .66$  for “Large Families” (figure 4.32), and to  $r = .78$  and  $r = .72$  for “Construction” (figure 4.33), determining there are strong correlations between these topics.

These findings clearly show how this topic differently impacts each group, and that there is a clear root cause for stress, anxiety and fatigue. In parallel, they are congruent with Amponsah et al. (2021), who report that people seeing themselves disrupts concentration, and Cristel et al. (2020), who add that people reshape their faces to adjust to “contemporary beauty standards”. Therefore, this evidence confirms the second hypothesis, **H2<sup>o</sup>: Using VC whilst WFH correlates with stress and anxiety.**

Figure 4.29

Group "All".

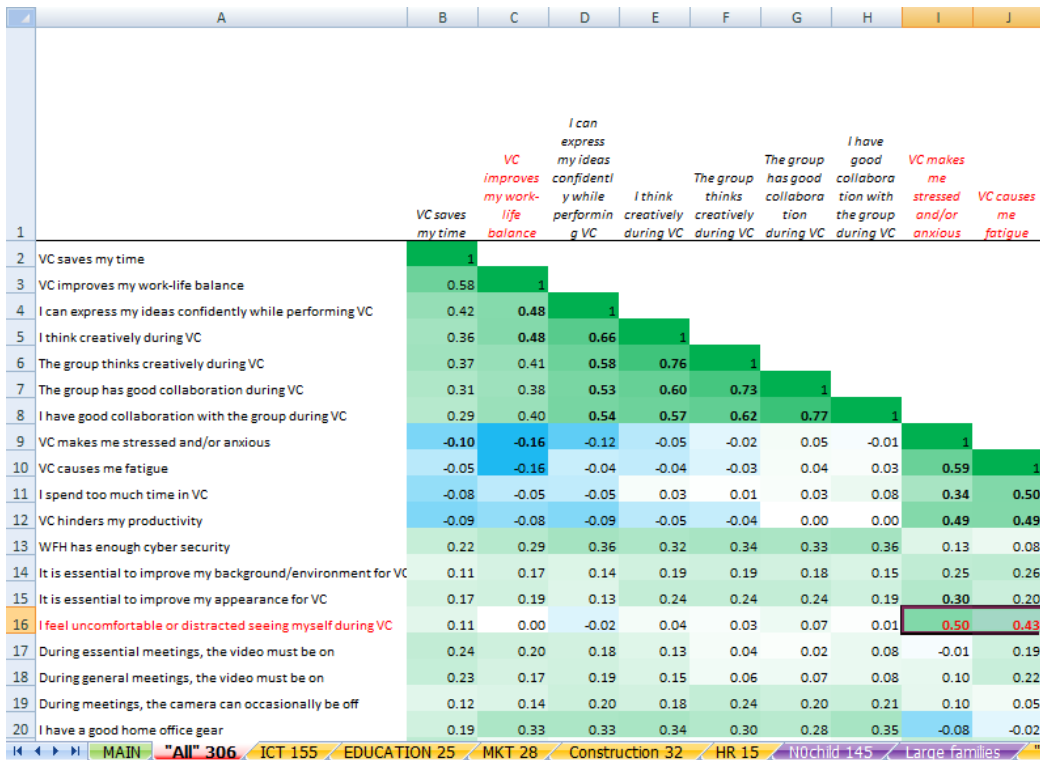
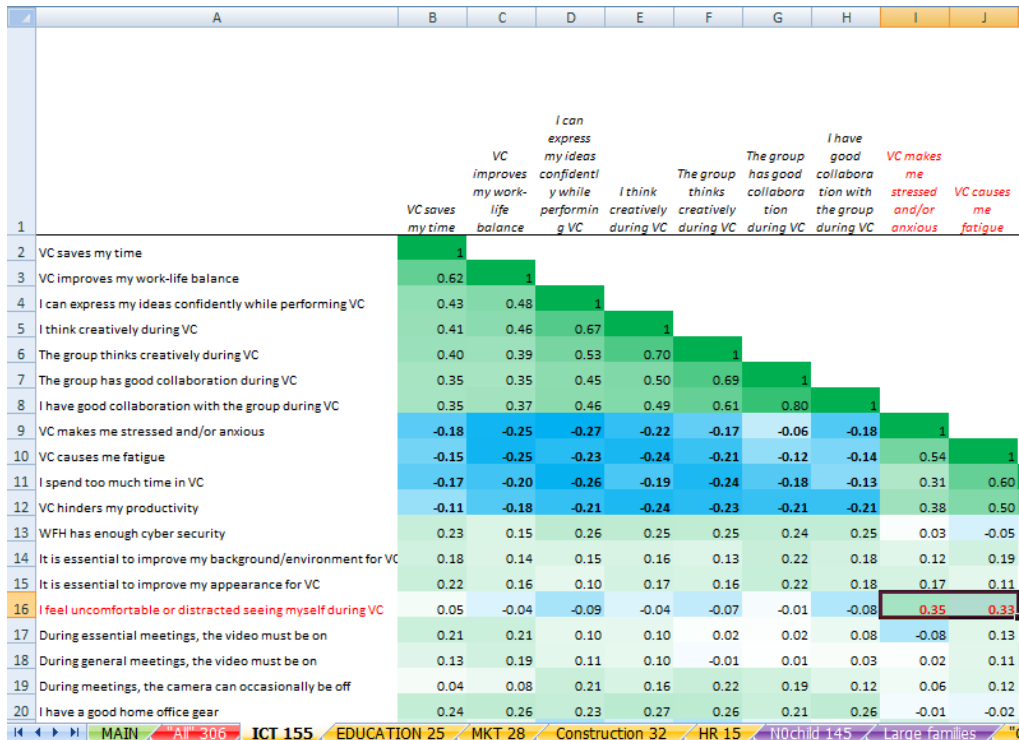


Figure 4.30

Group "ICT".



**Figure 4.31**  
Group “No Child”.

	A	B	C	D	E	F	G	H	I	J
1		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue
2	VC saves my time	1								
3	VC improves my work-life balance	0.57	1							
4	I can express my ideas confidently while performing VC	0.42	0.34	1						
5	I think creatively during VC	0.25	0.32	0.60	1					
6	The group thinks creatively during VC	0.25	0.31	0.60	0.74	1				
7	The group has good collaboration during VC	0.08	0.36	0.55	0.66	0.78	1			
8	I have good collaboration with the group during VC	0.01	0.39	0.52	0.59	0.68	0.86	1		
9	VC makes me stressed and/or anxious	-0.24	-0.03	-0.32	-0.03	0.09	0.03	0.14	1	
10	VC causes me fatigue	-0.26	-0.02	-0.22	0.02	0.08	0.10	0.17	0.83	1
11	I spend too much time in VC	0.03	0.23	0.07	0.05	0.12	0.11	0.20	0.57	0.67
12	VC hinders my productivity	-0.02	0.25	-0.10	0.05	0.18	0.12	0.28	0.62	0.69
13	WFH has enough cyber security	-0.11	0.34	0.05	0.22	0.34	0.38	0.46	0.45	0.47
14	It is essential to improve my background/environment for VC	0.01	-0.09	0.07	0.08	0.25	0.10	0.05	0.46	0.55
15	It is essential to improve my appearance for VC	0.02	-0.10	0.00	0.22	0.33	0.18	0.05	0.50	0.41
16	I feel uncomfortable or distracted seeing myself during VC	0.37	0.10	0.11	0.28	0.25	-0.02	0.06	0.31	0.37
17	During essential meetings, the video must be on	0.23	0.01	0.15	0.10	0.10	0.03	0.05	0.17	0.00
18	During general meetings, the video must be on	0.23	-0.11	0.04	0.15	-0.01	-0.05	-0.03	0.37	0.23
19	During meetings, the camera can occasionally be off	0.12	0.10	0.31	0.24	0.40	0.11	0.07	0.02	0.21
20	I have a good home office gear	-0.05	0.11	0.09	0.04	0.13	0.14	0.19	0.19	0.30

**Figure 4.32**  
Group “Large Families”.

	A	B	C	D	E	F	G	H	I	J
1		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue
2	VC saves my time	1								
3	VC improves my work-life balance	0.40	1							
4	I can express my ideas confidently while performing VC	0.13	0.62	1						
5	I think creatively during VC	0.26	0.55	0.73	1					
6	The group thinks creatively during VC	0.29	0.49	0.84	0.87	1				
7	The group has good collaboration during VC	0.44	0.59	0.73	0.81	0.83	1			
8	I have good collaboration with the group during VC	0.37	0.61	0.75	0.83	0.88	0.88	1		
9	VC makes me stressed and/or anxious	0.31	-0.13	-0.03	0.04	0.21	0.14	0.14	1	
10	VC causes me fatigue	0.11	-0.30	-0.12	0.00	0.09	-0.02	-0.09	0.66	1
11	I spend too much time in VC	0.19	-0.03	0.02	0.03	0.12	-0.08	-0.09	0.21	0.39
12	VC hinders my productivity	0.06	0.08	0.24	0.27	0.42	0.29	0.26	0.27	0.29
13	WFH has enough cyber security	0.30	0.34	0.41	0.45	0.51	0.42	0.39	0.25	0.10
14	It is essential to improve my background/environment for VC	-0.05	-0.17	0.12	0.22	0.29	0.10	0.13	0.65	0.68
15	It is essential to improve my appearance for VC	0.43	-0.12	-0.08	0.19	0.21	0.20	0.18	0.57	0.53
16	I feel uncomfortable or distracted seeing myself during VC	0.02	-0.15	0.02	0.07	0.07	-0.09	-0.04	0.68	0.66
17	During essential meetings, the video must be on	0.28	0.16	0.19	0.16	0.16	0.11	0.05	-0.05	0.12
18	During general meetings, the video must be on	0.22	0.11	0.38	0.21	0.39	0.15	0.16	0.20	0.15
19	During meetings, the camera can occasionally be off	0.10	0.37	0.44	0.29	0.29	0.38	0.42	0.09	-0.08
20	I have a good home office gear	0.32	0.37	0.27	0.41	0.34	0.36	0.36	-0.12	0.22

Figure 4.33

Group “Construction”.

	A	B	C	D	E	F	G	H	I	J
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue
1		1								
2		0.55	1							
3		0.46	0.49	1						
4		0.58	0.55	0.84	1					
5		0.52	0.43	0.67	0.79	1				
6		0.58	0.53	0.67	0.76	0.71	1			
7		0.52	0.47	0.72	0.77	0.69	0.78	1		
8		0.25	-0.05	0.42	0.39	0.35	0.41	0.29	1	
9		0.37	0.08	0.51	0.50	0.41	0.43	0.55	0.72	1
10		0.27	0.08	0.35	0.48	0.43	0.27	0.32	0.50	0.47
11		0.27	-0.01	0.29	0.28	0.23	0.22	0.28	0.69	0.72
12		0.44	0.34	0.66	0.61	0.57	0.53	0.63	0.53	0.61
13		0.29	0.28	0.30	0.30	0.49	0.27	0.17	0.50	0.32
14		0.36	0.27	0.39	0.57	0.43	0.51	0.39	0.51	0.34
15		0.50	0.19	0.40	0.38	0.25	0.48	0.33	0.78	0.72
16		0.33	0.18	0.41	0.33	0.14	0.16	0.11	0.35	0.33
17		0.57	0.26	0.55	0.51	0.43	0.36	0.21	0.50	0.52
18		0.26	0.23	0.18	0.26	0.29	0.18	0.37	-0.06	0.00
19		0.41	0.63	0.52	0.62	0.41	0.46	0.51	0.02	0.09
20										

Findings about stress and anxiety are not limited to people feeling “uncomfortable seeing themselves during VC”. Other evidence reinforces this hypothesis because there are strong positive correlations in general. For example, the questions “I spend too much time in VC” and “VC hinders my productivity” have strong positive correlations of  $r = .6$  for “All” (figure 4.34). However, whilst the correlation slightly drops to  $r = .57$  for “ICT” (figure 4.35), it tops to  $r = .85$  for “Others” (figure 4.36), almost reaching a perfect correlation.

Accordingly, when people spend too much time on VC, it hinders their productivity. Moreover, these findings support those of Johnson (2021), who observes excessive meeting time causes stress and exhaustion, which are elements that minimise productivity. Therefore, this further confirms the second hypothesis, **H2<sup>o</sup>: Using VC whilst WFH correlates with stress and anxiety.**

Figure 4.34

Group "All".

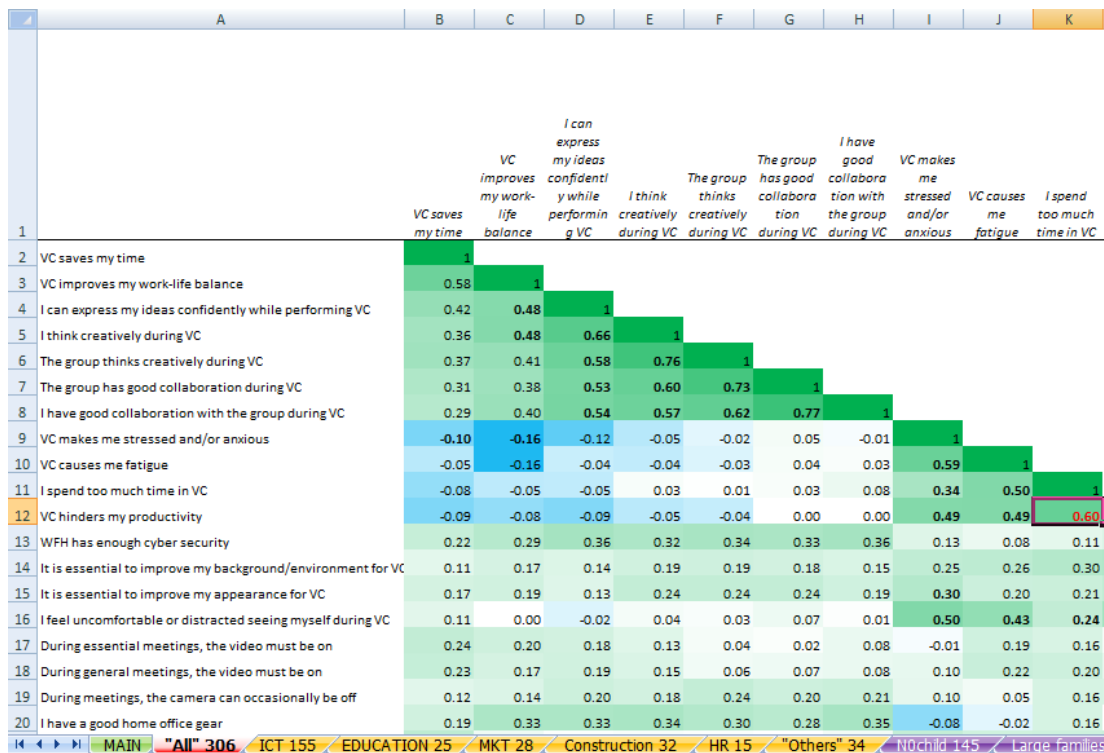
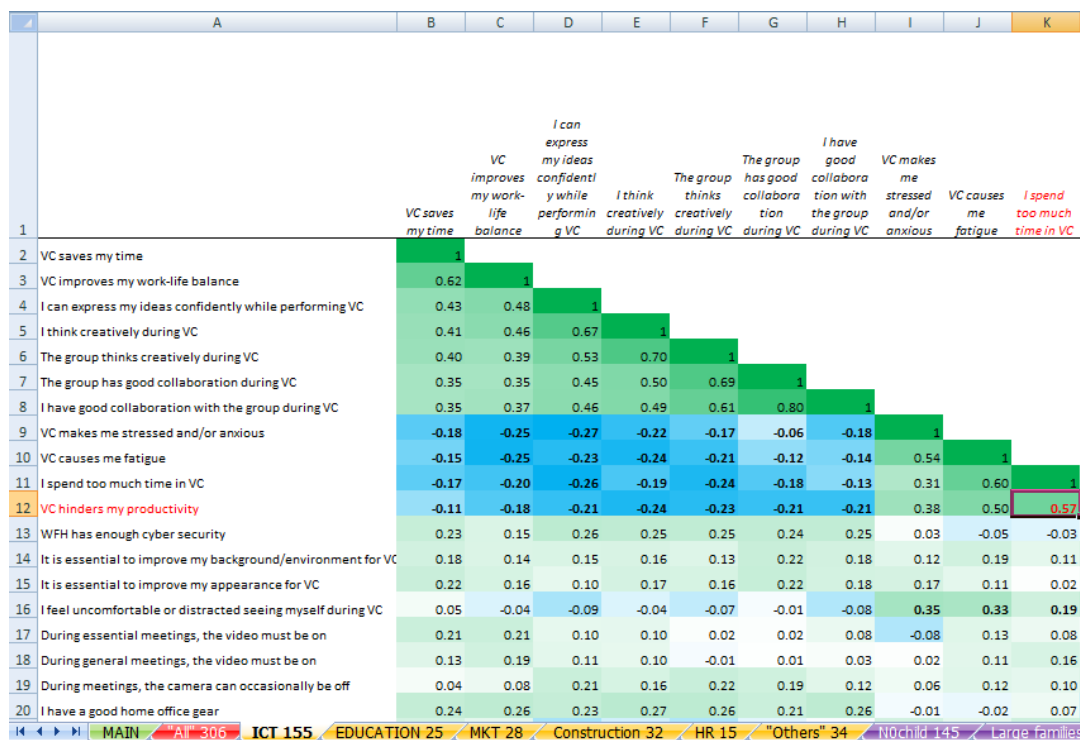


Figure 4.35

Group "ICT".



**Figure 4.36**  
Group “Others”.

	A	B	C	D	E	F	G	H	I	J	K	
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	
1		1										
2	VC saves my time	1										
3	VC improves my work-life balance	0.38	1									
4	I can express my ideas confidently while performing VC	0.46	0.14	1								
5	I think creatively during VC	0.03	0.31	0.39	1							
6	The group thinks creatively during VC	0.33	0.28	0.52	0.76	1						
7	The group has good collaboration during VC	0.20	0.37	0.45	0.57	0.77	1					
8	I have good collaboration with the group during VC	0.13	0.56	0.17	0.45	0.56	0.64	1				
9	VC makes me stressed and/or anxious	0.19	0.21	0.08	0.17	0.22	0.25	0.28	1			
10	VC causes me fatigue	0.18	0.23	0.47	0.21	0.42	0.51	0.35	0.61	1		
11	I spend too much time in VC	-0.14	0.38	-0.12	0.27	0.21	0.22	0.37	0.50	0.46	1	
12	VC hinders my productivity	-0.12	0.36	-0.16	0.30	0.27	0.40	0.48	0.46	0.33	0.85	1
13	WFH has enough cyber security	0.13	0.28	0.53	0.39	0.47	0.52	0.58	0.38	0.59	0.29	0.29
14	It is essential to improve my background/environment for VC	-0.20	-0.05	0.05	0.22	0.14	0.12	0.17	0.36	0.39	0.62	0.62
15	It is essential to improve my appearance for VC	0.02	0.10	0.22	0.37	0.34	0.25	0.31	0.33	0.42	0.52	0.52
16	I feel uncomfortable or distracted seeing myself during VC	0.33	0.10	0.20	0.13	0.15	0.22	0.17	0.50	0.43	0.47	0.47
17	During essential meetings, the video must be on	0.11	0.19	0.25	0.17	0.05	-0.01	0.20	-0.02	0.28	0.23	0.23
18	During general meetings, the video must be on	0.25	0.29	0.35	0.23	0.17	0.28	0.30	0.25	0.47	0.34	0.34
19	During meetings, the camera can occasionally be off	0.14	0.05	-0.03	0.05	0.13	0.00	0.11	0.29	0.11	0.32	0.32
20	I have a good home office gear	-0.11	0.09	0.44	0.54	0.48	0.31	0.30	-0.02	0.30	0.24	0.24

## VC and Innovation

The next group of questions relates to theories about digital innovation whilst embracing creative thinking, communication capability, and a sense of belonging as part of a team. Although the spectrum of innovation theories is too broad to summarise in a short survey, this project focuses on its core, whereby it relates to the VC experience. Therefore, according to Lee & Trimi (2021), questions about communication and collaboration support the investigation of innovation at its core. Moreover, people’s acknowledgment of belonging to an environment is vital for the support of innovation generation (Hastings & Meyer, 2020). For example, Q1) **I can express my ideas confidently whilst performing VC**; Q2) **I think creatively during VC**; Q3) **The group thinks creatively during VC**; Q4) **The group has good collaboration during VC**; Q5) **I have good collaboration with the group during VC**.

Immediately, the general results for these questions demonstrate that for Q1, most people, 106, can express their ideas confidently, whilst 56 are neutral. However,



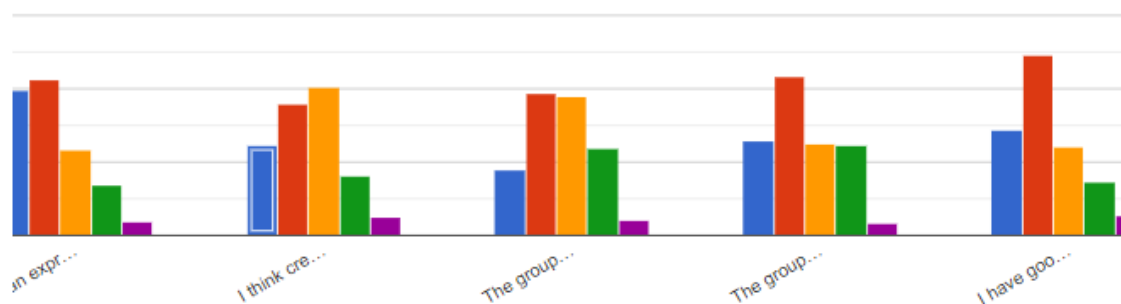
when it comes to Q2, thinking creatively, most people, 101, are neutral, albeit that those who “agree” and “totally” together (152) become a majority. When we get to Q3, there is a slight variation between those who agree and neutrals, respectively, from 97 to 95. Additionally, whilst those who “disagree” are 59, only 45 “totally agree”, demonstrating that opinions vary regarding creative thinking in VC.

Regarding Q4 about the group’s collaboration, 108 respondents “agree” and 62 “disagree”, almost half. Similarly, “neutral” and “totally agree” slightly vary from 63 to 65 respondents, which demonstrates that opinions consistently diverge. In addition, in Q5, most people revealed they had good group collaboration, whereas those who “totally agree” rose from 65 to 72, “neutrals” slightly decreased from 63 to 60, and “disagree” dropped from 62 to 37 in comparison to Q4 (figure 4.37).

This indicates that, generally, people consider themselves good or excellent collaborators, expressing themselves confidently during VC, whilst their groups have collaboration issues. In contrast, people tend to be more neutral about their creative thinking or the group’s creative capability, albeit that the majority agree with group collaboration capabilities.

**Figure 4.37**

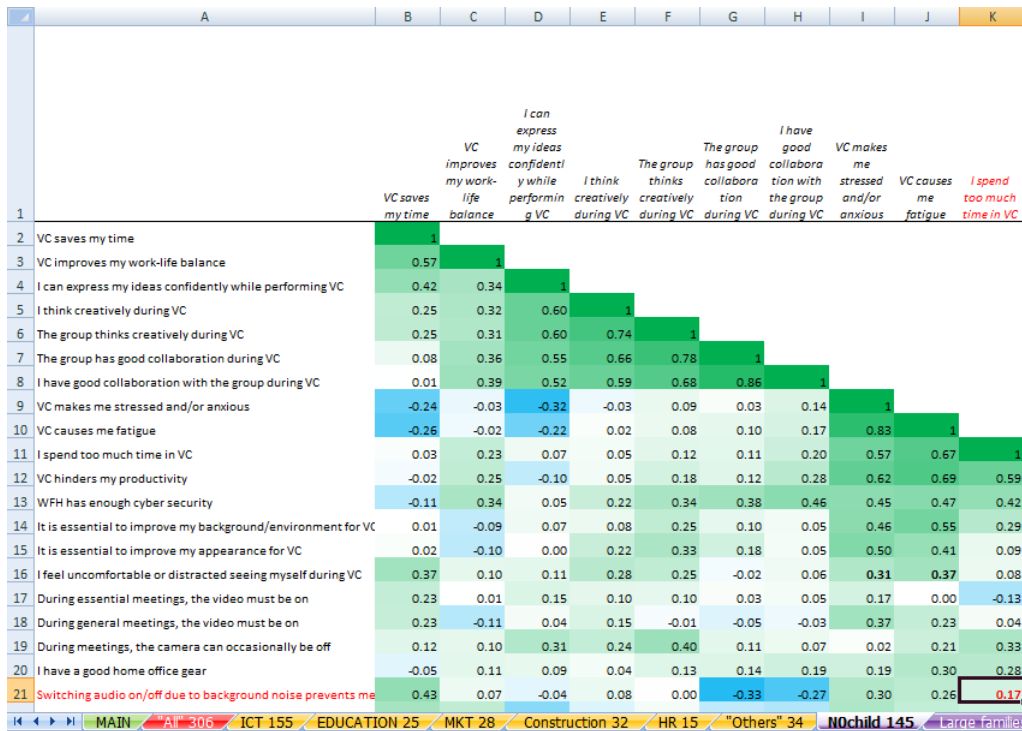
*Agree or disagree with questions about creativity, communication and group collaboration.*



From the perspective of innovation, this data demonstrates that people performing VC whilst WFH can communicate and express themselves clearly, although group collaboration is challenging. As long as innovation is closely related to

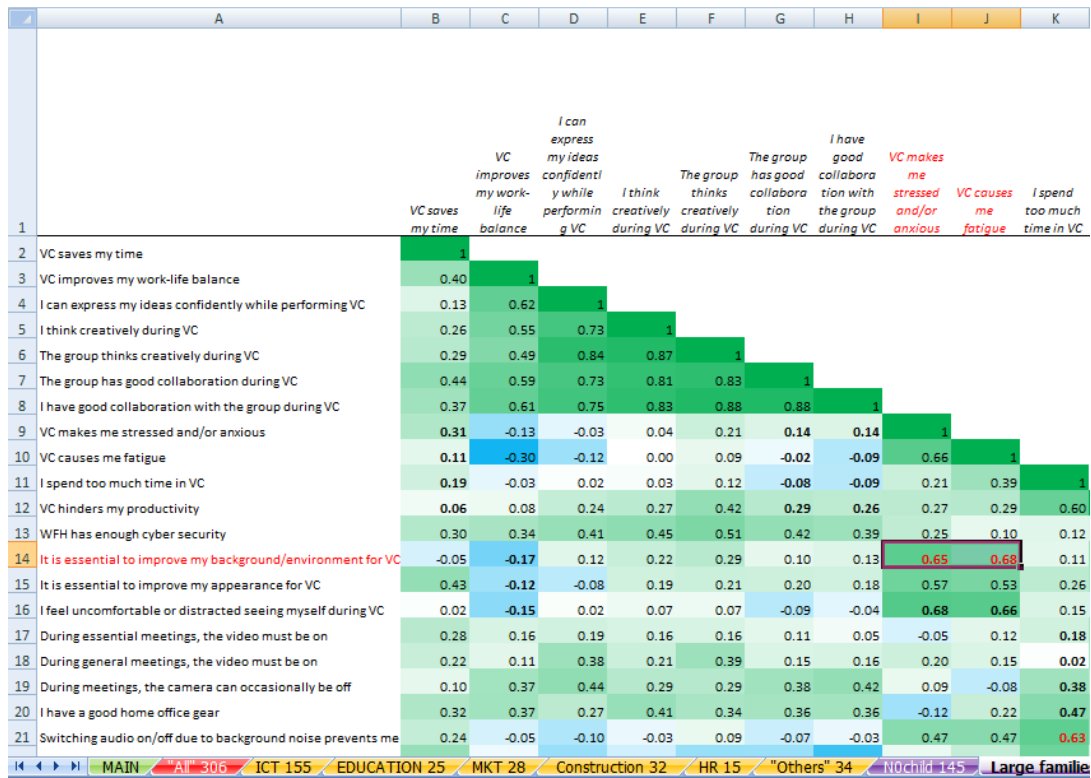


**Figure 4.39**  
Group “No Child”.

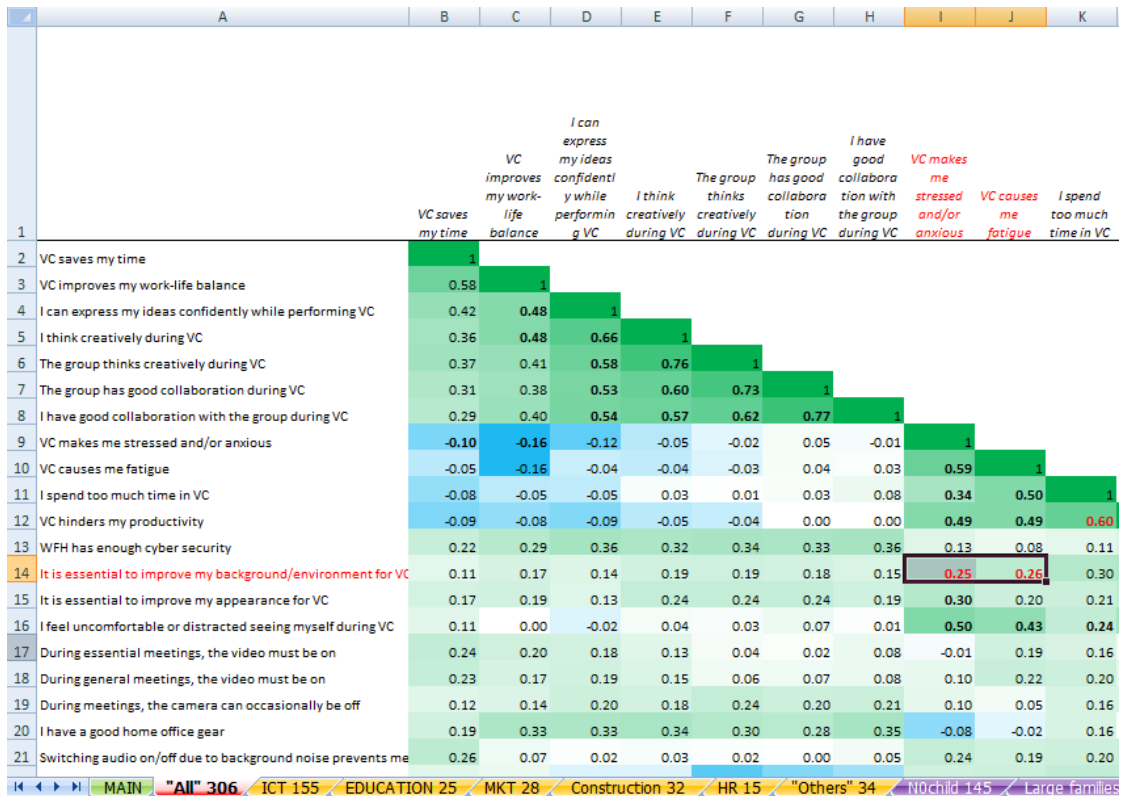


The second correlation embraces the question “**It is essential to improve my background/environment for VC**” with “**VC makes me stressed and/or anxious**” and “**VC causes me fatigue**” (figure 4.40). For that, “Large Families” have a strong positive  $r = .65$  and  $r = .68$ , respectively. In comparison, for “All”, they are much lower:  $r = .25$  and  $r = .26$ , respectively. Hence, performing background improvements for VC in “Large Families” is a challenging task compared to “All”, strongly correlating with stress, anxiety and fatigue.

**Figure 4.40**  
Group “Large Families”.



**Figure 4.41**  
Group “All”.



The third correlation embraces the questions “**Generally, I am delighted with the VC platform’s performance**” and “**I feel uncomfortable or distracted seeing myself during VC**”. For this, people from “Education” have a strong negative  $r = -.56$ , whilst it is a very low positive (almost null)  $r = .03$  for “All”. It determines that people strongly disagree with having a good VC experience whilst seeing themselves.

The fourth and final correlation embraces the questions “**It is easy to access VC meetings**” and “**I have good home office gear**”. For that, people from “All” have a moderate positive  $r = -.39$ , which rises to moderate positive  $r = .41$  for “Families with Children”. However, it scales to a strong positive  $r = .61$  for ‘Large Families’. It contrasts the almost null  $r = .03$  (no correlation) for those with no children. This determines that “Large Families” require home office improvements to enhance performance, which is congruent with the literature from Chanana & Sangeeta (2021).

Therefore, these four correlations determine that VC correlates with challenges but varies significantly for each group depending on circumstances. Therefore, the findings confirm the fifth hypothesis, **H5<sup>0</sup>: It is challenging WFH with VC.**

## **Findings**

Throughout the data analysis, the first relevant finding is that most people did not WFH before the pandemic. However, nowadays, most of them do and will remain doing so. In addition, it is unlikely that people will go back to the office as they used to do, nor remain completely remote like during the lockdowns. For this reason, the trend is that people will maintain a hybrid/flexible working mode. This is a relevant finding because it highlights people operating under a different paradigm, which indicates society’s behaviour change.

This “new normal” supports work-life balance because people prefer to stay more at home and less in the office without compromising productivity. Gupta & Varsakiya (2021) have a similar finding, arguing that VC facilitates people to interact regardless of location and provides an excellent experience. However, organisations recognise professionals are committed to productivity due to numerous career

advancements since the pandemic. This finding matches studies about employees who organise themselves to succeed (Chanana & Sangeeta, 2021). Although a few participants had a setback in their careers, the vast majority suffered no harm. In contrast, the high number who “advanced a lot” is impressive because the world was facing an unprecedented crisis due to the pandemic (WHO, 2020) whilst careers flourished in NZ, including in the ICT industry.

From the perspective of WFH, VC has played a central role by enabling business operations during lockdowns and paving the solid ground for numerous people to enhance their performances and advance their careers. Moreover, it has enabled new work arrangements. In addition, the data reveals that VC enables collaboration and communication, the fundamentals of supporting innovation, whilst organisations scale remote work.

Stress and anxiety happen alongside VC and WFH under particular circumstances. This usually correlates with extended VC hours and the lack of proper home office equipment. However, it sparks when people see themselves during VC because it distracts them and makes them feel uncomfortable. Also, for most participants, the background and their appearance during VC highlights are central concerns, which correlates to Okabe-Miyamoto et al. (2021), suggesting minimising video use to lower stress.

Finally, studying a range of profiles enables a variety of insights. It contributes to quality data analysis and findings because the outcomes from these correlations demonstrate how differently each profile and the hypotheses are impacted under specific circumstances. For example, unlike the “ICT” group, “Others” tend to feel more stress/anxiety when they spend too much time in VC. On the other hand, “Large Families” feel more satisfied with VC when they have better equipment, in contrast to those in the “No children” group.

## **Chapter 5. Conclusions, recommendations and future research directions**

### **Introduction**

This study elucidates how to tackle significant challenges that New Zealand businesses have dealt with since the pandemic. Primarily, VC and WFH supported people and businesses in maintaining operations, employment and profitability during the unprecedented disruption caused by the pandemic. However, WFH arrangements were possible only because technology gave critical support, which included VC, cloud computing and telecommunications infrastructure. As a result, this combination has paved a solid ground for a significant behaviour change, pushing the people of New Zealand towards this new paradigm.

Although the survey demonstrates that most people are delighted with the VC experience, it also reveals numerous challenges to optimising outcomes, such as enhancing the home office equipment for professionals with large families. It is relevant because it should facilitate the performance and work-life balance of many professionals. This finding concurs with that of Chanana & Sangeeta (2021) regarding the importance of workstation ergonomics to support the work environment.

The dynamics of having the camera on/off demonstrates correlation in an area which commonly causes high tension and is a further challenge. For example, excessive VC time sparks stress, anxiety and fatigue signals in those considering that cameras must be on all the time. This research agrees with that of Okabe-Miyamoto et al. (2021), which suggests that managers should encourage employees to use audio-only during conferences. This practice should enhance their productivity and prevent them from developing mental health issues.

Also, the findings in this project support those of Maqsood et al. (2021), which reveal that employees should ultimately feel free to have their cameras off because exposing their private lives could cause mental health issues. However, this research

produced no evidence of lower productivity and higher anxiety during VC due to employer surveillance.

Finally, This project draws on a rich data set to support insights. The survey crossed the baseline of 273 participants, achieving 306, which raised the confidence level from 90 to 95 per cent, which is the industry standard (Survey Monkey, 2022). Moreover, 80 different professions were represented, which minimised bias. Therefore, this project provides a big picture of the VC user experience, which then determines in-depth findings and insights.

## **Testing the Hypotheses**

### ***VC Supports WFH, and a Significant Social Change***

VC and WFH have played a prominent role in supporting critical changes in how the people of New Zealand have behaved since the Covid-19 pandemic. Furthermore, whilst people and businesses suddenly had to adapt operations due to a severe pandemic disruption, the new culture benefited most people.

Studies worldwide reveal that the work dynamics have changed; this study confirms that New Zealand also has changed, which is significant in contributing to other research about remote work and video conferencing. For example, Watson (2021) determines that businesses and employees notice benefits from WFH, and Somani (2021) and Arishina et al. (2022) add that VC supports business operations by enabling WFH.

In New Zealand/Aotearoa, the pandemic and the lockdowns have accelerated society's change, even though WFH already existed. The relevant finding is the massive shift from in-person to WFH, from 38 to 83 per cent (see figures 4.7 and 4.8, chapter 4, p. 44 - 45). Furthermore, even without health restrictions (New Zealand Ministry of Health, 2022), people and businesses have agreed to continue with WFH and VC operations. So, there is no sign of employees and businesses returning completely to



pre-Covid practices. Therefore, nowadays, the status quo is a balance between in-person and remote work, whereby hybrid/flexible workplaces are the new normal.

This finding contributes to the literature supporting that people benefit from saving time and enhancing their work-life balance. Therefore, professionals perceive value in VC and enjoy WFH (Watson, 2021). However, New Zealanders want the best of both worlds to balance freedom and self-management. As a result, people WFH and also go to the office because this fills WFH gaps, such as social interaction in the workspace. Although it is useful and popular, VC does not provide the same level of interactivity, which is vital to people performing at their best.

This landscape contributes to Johns et al.'s (2021) observations that companies reorganised their operations whilst families reorganised their dynamics. This project demonstrates that VC provided vital support for people throughout a massive shift from in-person to hybrid/flexible WFH arrangements, and a strong trend of people and organisations not returning to the pre-Covid standard practices. Therefore, VC strongly correlates positively with social change, which answers the first research question.

### ***Correlations between Stress/Anxiety and VC whilst WFH***

Stress and anxiety in relation to VC and WFH presented mixed results, showing both strong positive and negative correlations. These findings have high relevance due to guiding employers and employees on how to tackle VC and WFH arrangements. For example, creativity, communication and collaboration strongly correlate with stress, anxiety and fatigue. A common reason is that not only can VCs save time, they can conversely make people spend too much time on it, which either enhances or lowers their productivity respectively.

Questions about collaboration, creativity, teamwork, and self-expression demonstrated strong positive and negative correlations that stand out when contrasting different profiles. For example, People from ICT tend to have a moderate negative correlation between “communication, collaboration and creativity” versus “stress, anxiety and fatigue”. In parallel, “HR/Recruitment” people tend to have a strong negative, whilst “Construction” reveals a strong positive, and “Education” does not

correlate. It might be a consequence of each profile, because education professionals tend to have enhanced communication and teamwork skills due to the nature of their profession, being face-to-face with students. Therefore, it turns out that VC is irrelevant to them. Meanwhile, people from “Construction”, which includes manufacturing, and Primary Industry professionals, struggle to adopt VC, which requires extra effort to perform because this is not the nature of their jobs. Therefore, those professionals tend to return to in-person work.

On the other hand, ICT professionals commonly benefit from digital resources to perform introspective tasks (e.g., data analysis, planning and coding). Therefore, their low stress and anxiety determine they are well adapted to VC and WFH. For HR/Recruitment people, VC became a primary requirement since their job is to interview candidates using “eye contact”, so VC optimises time by not commuting to meetings, and they highly benefit from spending a significant amount of time on VC.

Other factors sparking stress and anxiety are audio, video, streaming and connectivity issues, which would not necessarily require a survey to determine. Nevertheless, the data reaffirm it. In addition, an outstanding finding is that people seeing themselves during VC implicates both strong positive and negative correlations. Therefore, acknowledging this will determine participants’ performance and optimise outcomes, which is vital. Hence, making people comfortable turning the video on/off would optimise performance depending on the industry profile. Furthermore, for those who suffer stress due to seeing themselves, this work correlates with Cristel et al. (2020), which reveals that people are reshaping their faces to adjust to “contemporary beauty standards”.

### ***The Impact on Productivity Correlated to VC and WFH.***

This study presents findings regarding productivity, with 50 per cent of participants advancing their careers and 83 per cent WFH. This is a significant finding because it determines high productivity and opportunities for the large majority with the support of VC whilst WFH. Putting this in the international context, New Zealand kept unemployment under control. Unemployment scaled from 4.1 per cent to 5.3 per cent during 2020. However, it dropped steadily before reaching an average of 3.2 per cent

and remained flat for more than a year until today (Stats NZ, 2022). New Zealanders are used to low unemployment and inflation. Historically, unemployment peaked in 1990, along with high inflation. At this time, unemployment reached 7.6 per cent, whilst inflation was 15.2 per cent (Stuff, 2022).

Comparatively, unemployment in the USA leapt from 3.6 per cent to 13 per cent in 2020 and is currently at 4.2 per cent, still higher than before the pandemic (US Govt, 2022). For that, VC and WFH played a central role in supporting businesses. Therefore, it is possible to determine the relevance of technology in enabling productivity and adaptability to new standards.

The finding about professionals advancing their careers and improving work-life balance confronts the literature. Maqsood et al. (2021) reported numerous salaries shrinking during the pandemic for those WFH, which caused stress and anxiety because employees could not deal with financial burdens. In contrast, this study determines that during the pandemic, the people of New Zealand advanced their careers and improved their work-life balance. For example, 49 per cent of the ICT professionals “advanced” or “advanced a lot” their careers, whilst only 3.8 per cent had a setback, and 1.9 per cent had a significant setback. Therefore, although there were minor setbacks, the project determines that VC conferencing played a vital role in supporting performance whilst professionals WFH.

### ***Work-life balance***

The survey reveals that the vast majority of participants achieved work-life balance improvements since the pandemic with WFH and VC support, which is a massive finding. Moreover, most people work/meet remotely rather than in the office because VC provides outstanding convenience. It saves time, allows interactivity, and simplifies how people execute daily tasks. However, for most people, in-person interaction is still necessary. Therefore, a hybrid work mode is the best of both worlds, enjoying more time at home whilst having convenient office interaction. Hence, this correlates with literature revealing that businesses have shifted to WFH permanently with proven enhanced creativity and productivity, despite occasional technical

difficulties (Johns et al., 2021; Watson, 2021). So, WFH and video-conferencing are critical for the new culture to succeed.

This behaviour shift in New Zealand is not a trend; it is the “new normal”. This results from people maintaining WFH whilst the government lowers restrictions due to reduced Covid-19 infection risks. By coincidence, whilst concluding this project, the New Zealand Government has just announced the winding down of most Covid-19 restrictions due to the lower impact the infection currently has throughout society (Hipkins & Whaitiri, 2022). In contrast, work flexibility remains. Therefore, this project also determines that organisations are comfortable incorporating WHF regardless of the pandemic. Since the onset of the pandemic, people have enjoyed work-life balance improvements and have chosen not to return to the office as life was pre-pandemic.

Finally, there was a series of questions related to how much people like WFH, their career advancement, and what people considered to be the impact of VC and WFH on work-life balance enhancement. With respect to this, most people revealed they take a regular time break to relax and energise when WFH, whilst only a few do not. Moreover, the data show a strong correlation between those advancing their careers and those who like working from home.

### **User Experience Challenges**

The user experience landscape of VC has findings that are relevant to understanding how to manage people’s performance and avoid drawbacks, such as stress, anxiety and fatigue. The most surprising finding is how uncomfortable and/or distracted people feel whilst seeing themselves during online meetings. At first sight, it should be an empathetic feature that allows people to view their appearance whilst performing virtual meetings. Also, whilst correlating questions about “camera must be on” for “Construction” and “Others”, a strong correlation determines that it makes these people highly uncomfortable, which should be a root cause for a poor user experience. Moreover, they tend to disagree whether “the camera might be occasionally off”, which suggests that it might be mandatory for them to have the camera on.

This scenario is congruent with reports about employees' lower productivity and higher anxiety during VC due to employer surveillance. Although there is no evidence of surveillance in the "Construction" and "Others" industries on this project, findings are similar to those of Maqsood et al. (2021). This situation contrasts "ICT" due to its neutrality, whereas the correlation is very low, almost nil. Conversely, HR/Recruitment people demonstrate a strong negative correlation because they often rely on online interviews and need to see candidates' faces. Therefore, people correlate negatively with stress in this situation because VC strongly supports them. Nevertheless, there is a consensus about poor VC user experience and connectivity or streaming issues.

A further finding correlates home office equipment and family size. This is relevant because it determines that small families without children have a minor concern about their home offices rather than families with three or more children accessing VC. This report supposes that these family homes with three or more children might have high exposure to noise and distraction compared to smaller family sizes. Therefore, this finding is relevant to advising organisations whose workers are households of large families to observe if they have a proper environment to perform quality remote work. Moreover, these professionals are responsible for supporting large families, which needs to guarantee enhanced performance to maintain their jobs and higher earnings.

## **Managerial and Theoretical Implications**

This project benefits managers by underpinning the benefits and pitfalls of VC and WFH, which should support their decision-making to enhance work performance. Firstly, VC is a tool with enormous potential to enhance professional performance. However, it does not apply to every industry or professional situation. For example, it can significantly benefit ICT and Recruiters, however, it might be irrelevant for some primary school teachers or difficult for those who work in the construction industry. Therefore, managers must acknowledge how to apply it and to whom.

Defining rules is vital because it can optimise performance and enhance results or spark stress, anxiety, and fatigue, thereby leading workers to exhaustion, job dissatisfaction and productivity loss. For example, defining a screen time limit should

avoid VC fatigue. Also, cameras being occasionally off should preserve participants' privacy and avoid stressful situations because if employees are concerned about their surroundings this can hinder productivity.

In addition, this study suggests that people find a way to disable the feature to see themselves during VC for those who feel uncomfortable or distracted with it. Moreover, a recommendation for professionals with large families is to acknowledge that they are not alone whilst struggling with background noise and further similar constraints due to their family structure. Therefore, the suggestion is to try to enhance their equipment as much as possible to guarantee their best performance and work-life balance.

Finally, the hybrid/flexible work mode has been a successful arrangement since the pandemic in enhancing productivity because it benefits work-life balance, which is meaningful to people and has led numerous professionals to advance their careers. Therefore, it is worthwhile to consider enhancing it rather than fighting it, which should lead to employee engagement and productivity.

Moreover, it must be acknowledged that VC and WFH are not a trend but a new paradigm about which people and businesses are still learning how to take the best from it. Therefore, this project is satisfied to provide a few, but hopefully, valuable insights.

## **Future Research Directions**

It is acknowledged that there are no participants in the survey from the tourism industry, which defines a bias. Therefore, future research is suggested through the tourism and hospitality industries. However, this does not compromise this project's quality of data analysis, findings and insights. Furthermore, although this project embraces the people of New Zealand, the vast majority lived in Auckland. Therefore, there is an acknowledgement of some constraints even though this project has relied on consistent data to generate quality findings and insights aiming at the highest standards and fulfilling industry and academic requirements.

Although there are 80 different professions represented, there are numerous participants from a small number of profiles, such as “ICT”, “Education”, “HR/Recruitment”, and “Construction”. This sparks the willingness to extend the data collection throughout other professionals and industries to clarify the impact of VC and WFH on them. For example, to include people from Broadcasting, Government, Manufacturing, and Arts and Culture. Likewise, the tourism and hospitality industries because they are critical for New Zealand’s economy.

A further survey could approach digital innovation because this is a massive topic for modern businesses, a driving force behind sustainable product development and long-term profitability. Therefore, the questions should approach group work, leadership, organisational culture, creativity, communication, conflict management, and knowledge sharing — to list just a few — thereby clarifying how innovation flourishes under VC and WFH. The same applies to work-life balance and how it makes professionals more productive. What would be more relevant for whom: for example, saving commuting time or having more time for themselves, friends and family? Further research may reveal this and contribute to enhancing remote work performance.

It would have been useful to approach this project also from the perspective of how and if people feel safe whilst WFH due to the pandemic. However, unfortunately, it does not, which is a shortcoming because of its relevance. However, alongside numerous fascinating or urgent discussions that WFH may instigate, this project had to maintain focus on a specific topic. Therefore, approaching health and safety would open a profound and broad discussion, which was outside the scope of this project.

By observing its enormous potential, this author suggests further studies to explore how to enhance WFH capabilities with VC, for two reasons: First, this arrangement can benefit work-life balance, professional performance and business profitability. However, there are challenges related to improving communication and collaboration, which are critical for WFH to succeed. Secondly, it is relevant to study how hybrid/flexible work arrangements can minimise commuting costs, including petrol and vehicle parts, in addition to air pollution, public health issues and cost of living. Moreover, its major impact on the environment and climate change are vital concerns that can be contributed to in future studies.





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## Appendix

### Advertising



# Video Conferencing & Work From Home

**A research project about New Zealand**

This master's degree research project aims to evaluate the user experience of video conferencing by people working from home in New Zealand since the pandemic. Your participation is highly appreciated because it is a New Zealand-based project that will generate valuable findings for everyone in New Zealand. **Click on the link to participate!**

**Thank you!!**  
**Marcelo Lane**



Data from Google Forms

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

Excel spreadsheet with columns A through AV and rows 1 through 59. The spreadsheet contains data for various video conferencing and work-from-home activities, including platform names, user demographics, and frequency of use.

MAJN AI 306 ICT 155 EDUCATION 25 MKT 28 Construction 32 HR 15 Others 34 10 child 145 Large families No-stress 155 stress 78 1 child 161 55+ Female 118 Male 187 general break 90 min 60 min every now and again

Group "All"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents participants' body language	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance	
1		1																								
2	VC saves my time	1																								
3	VC improves my work-life balance	0.58	1																							
4	I can express my ideas confidently while performing VC	0.42	0.48	1																						
5	I think creatively during VC	0.36	0.48	0.66	1																					
6	The group thinks creatively during VC	0.37	0.41	0.58	0.76	1																				
7	The group has good collaboration during VC	0.31	0.38	0.53	0.60	0.73	1																			
8	I have good collaboration with the group during VC	0.29	0.40	0.54	0.57	0.62	0.77	1																		
9	VC makes me stressed and/or anxious	-0.10	-0.16	-0.12	-0.05	-0.02	0.05	-0.01	1																	
10	VC causes me fatigue	-0.05	-0.16	-0.04	-0.04	-0.03	0.04	0.03	0.59	1																
11	I spend too much time in VC	-0.08	-0.05	-0.05	0.03	0.01	0.03	0.08	0.34	0.50	1															
12	VC hinders my productivity	-0.09	-0.08	-0.09	-0.05	-0.04	0.00	0.00	0.49	0.49	0.60	1														
13	WFH has enough cyber security	0.22	0.29	0.36	0.32	0.34	0.33	0.36	0.13	0.08	0.11	0.15	1													
14	It is essential to improve my background/environment for VC	0.11	0.17	0.14	0.19	0.19	0.18	0.15	0.25	0.26	0.30	0.31	0.23	1												
15	It is essential to improve my appearance for VC	0.17	0.19	0.13	0.24	0.24	0.24	0.19	0.30	0.20	0.21	0.25	0.22	0.67	1											
16	I feel uncomfortable or distracted seeing myself during VC	0.11	0.00	-0.02	0.04	0.03	0.07	0.01	0.50	0.43	0.24	0.36	0.09	0.34	0.36	1										
17	During essential meetings, the video must be on	0.24	0.20	0.18	0.13	0.04	0.02	0.08	-0.01	0.19	0.16	0.05	0.05	0.23	0.20	0.05	1									
18	During general meetings, the video must be on	0.23	0.17	0.19	0.15	0.06	0.07	0.08	0.10	0.22	0.20	0.10	0.03	0.22	0.21	0.17	0.70	1								
19	During meetings, the camera can occasionally be off	0.12	0.14	0.20	0.18	0.24	0.20	0.21	0.10	0.05	0.16	0.15	0.21	0.08	0.13	0.12	-0.04	-0.15	1							
20	I have a good home office gear	0.19	0.33	0.33	0.34	0.30	0.28	0.35	-0.08	-0.02	0.16	0.01	0.30	0.10	0.13	-0.09	0.20	0.12	0.20	1						
21	Switching audio on/off due to background noise prevents participants' body language	0.26	0.07	0.02	0.03	0.02	0.00	0.05	0.24	0.19	0.20	0.21	0.10	0.22	0.20	0.29	0.21	0.24	0.07	0.06	1					
22	Body language improves communication in video meetings	0.11	0.08	-0.03	-0.02	-0.12	-0.09	-0.07	0.19	0.20	0.24	0.23	0.06	0.15	0.08	0.23	0.19	0.17	0.12	0.17	0.24	1				
23	It is easy to access Video Conference meetings	0.16	0.17	0.24	0.28	0.27	0.23	0.22	0.10	0.09	0.13	0.04	0.21	0.05	0.11	0.06	0.13	0.13	0.26	0.25	0.12	0.04	1			
24	I frequently experience audio/video/connectivity issues during Video Conferencing	0.07	-0.04	0.00	0.06	0.03	0.01	-0.04	0.38	0.26	0.21	0.32	0.02	0.16	0.18	0.34	0.02	0.20	0.12	-0.11	0.26	0.15	0.09	-0.10	1	
25	Generally, I am delighted with the Video Conference platform's performance	0.46	0.39	0.48	0.37	0.42	0.37	0.41	-0.17	-0.10	0.03	-0.09	0.36	0.17	0.21	-0.03	0.28	0.22	0.22	0.42	0.13	0.06	0.28	0.57	-0.12	1

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MAIN "All" 306 ICT 155 EDUCATION 25 MKT 28 Construction 32 HR 15 "Others" 34 Topchild 145 Large families 1 Exchild 161 No-stress 155 stress 78 Female 118 Male 187 55+ general break / 90 min / 60 min / every now and again

Group "ICT"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents my body language	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1		1																								
2	VC saves my time	1																								
3	VC improves my work-life balance	0.62	1																							
4	I can express my ideas confidently while performing VC	0.43	0.48	1																						
5	I think creatively during VC	0.41	0.46	0.67	1																					
6	The group thinks creatively during VC	0.40	0.39	0.53	0.70	1																				
7	The group has good collaboration during VC	0.35	0.35	0.45	0.50	0.69	1																			
8	I have good collaboration with the group during VC	0.35	0.37	0.46	0.49	0.61	0.80	1																		
9	VC makes me stressed and/or anxious	-0.18	-0.25	-0.27	-0.22	-0.17	-0.06	-0.18	1																	
10	VC causes me fatigue	-0.15	-0.25	-0.23	-0.24	-0.21	-0.12	-0.14	0.54	1																
11	I spend too much time in VC	-0.17	-0.20	-0.26	-0.19	-0.24	-0.18	-0.13	0.31	0.60	1															
12	VC hinders my productivity	-0.11	-0.18	-0.21	-0.24	-0.23	-0.21	-0.21	0.38	0.50	0.57	1														
13	WFH has enough cyber security	0.23	0.15	0.26	0.25	0.25	0.24	0.25	0.03	-0.05	-0.03	0.01	1													
14	It is essential to improve my background/environment for VC	0.18	0.14	0.15	0.16	0.13	0.22	0.18	0.12	0.19	0.11	0.18	0.16	1												
15	It is essential to improve my appearance for VC	0.22	0.16	0.10	0.17	0.16	0.22	0.18	0.17	0.11	0.02	0.04	0.09	0.65	1											
16	I feel uncomfortable or distracted seeing myself during VC	0.05	-0.04	-0.09	-0.04	-0.07	-0.01	-0.08	0.35	0.33	0.19	0.27	-0.03	0.28	0.25	1										
17	During essential meetings, the video must be on	0.21	0.21	0.10	0.10	0.02	0.02	0.08	-0.08	0.13	0.08	0.01	-0.01	0.22	0.20	0.02	1									
18	During general meetings, the video must be on	0.13	0.19	0.11	0.10	-0.01	0.01	0.03	0.02	0.11	0.16	0.10	-0.03	0.20	0.18	0.10	0.73	1								
19	During meetings, the camera can occasionally be off	0.04	0.08	0.21	0.16	0.22	0.19	0.12	0.06	0.12	0.10	0.16	0.26	0.06	0.14	0.10	-0.12	-0.20	1							
20	I have a good home office gear	0.24	0.26	0.23	0.27	0.26	0.21	0.26	-0.01	-0.02	0.07	-0.09	0.23	0.05	0.15	-0.03	0.21	0.15	0.16	1						
21	Switching audio on/off due to background noise prevents my body language	0.17	0.10	-0.09	-0.05	-0.08	-0.03	-0.01	0.18	0.10	0.19	0.26	0.06	0.26	0.28	0.27	0.13	0.14	0.03	0.11	1					
22	Participants' body language is lost during video meetings	0.02	0.01	-0.04	0.00	-0.13	-0.12	-0.21	0.21	0.21	0.28	0.21	0.03	0.16	0.04	0.26	0.17	0.16	0.10	0.17	0.23	1				
23	Body language improves communication in video meetings	0.03	0.04	0.06	0.12	0.17	0.08	0.12	0.11	0.04	0.09	0.08	0.19	-0.11	0.09	0.06	0.08	0.06	0.29	0.15	-0.02	0.04	1			
24	It is easy to access Video Conference meetings	0.39	0.40	0.31	0.24	0.15	0.25	0.25	-0.14	-0.01	0.09	-0.02	0.14	0.07	0.08	0.02	0.25	0.14	0.08	0.38	0.07	0.08	0.15	1		
25	I frequently experience audio/video/connectivity issues during Video Conferencing	-0.02	-0.07	0.00	0.02	-0.03	-0.07	-0.05	0.31	0.21	0.24	0.27	-0.07	0.07	0.15	0.21	0.01	0.13	0.14	-0.16	0.28	0.09	0.10	-0.18	1.00	
26	Generally, I am delighted with the Video Conference platform's performance	0.49	0.41	0.40	0.32	0.38	0.38	0.43	-0.26	-0.17	-0.11	-0.13	0.27	0.26	0.31	-0.03	0.33	0.20	0.04	0.38	0.09	0.00	0.10	0.54	-0.20	1

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | Topchild 145 | Large families | 1 child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

# Group "Education"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1		1																								
2	VC saves my time	1																								
3	VC improves my work-life balance	0.38	1																							
4	I can express my ideas confidently while performing VC	0.43	0.36	1																						
5	I think creatively during VC	0.52	0.43	0.74	1																					
6	The group thinks creatively during VC	0.34	0.51	0.72	0.70	1																				
7	The group has good collaboration during VC	0.27	0.39	0.79	0.81	0.80	1																			
8	I have good collaboration with the group during VC	0.28	0.36	0.86	0.72	0.69	0.91	1																		
9	VC makes me stressed and/or anxious	-0.41	0.05	0.05	0.08	0.20	0.24	0.16	1																	
10	VC causes me fatigue	-0.06	-0.13	0.32	0.29	0.23	0.35	0.33	0.53	1																
11	I spend too much time in VC	-0.10	-0.17	0.07	0.03	0.08	0.15	0.04	0.38	0.44	1															
12	VC hinders my productivity	-0.28	-0.06	-0.05	0.10	0.11	0.28	0.20	0.71	0.40	0.60	1														
13	WFH has enough cyber security	-0.22	0.44	0.09	0.13	0.35	0.36	0.30	0.51	0.34	0.19	0.45	1													
14	It is essential to improve my background/environment for VC	0.13	0.32	-0.14	-0.06	0.12	-0.02	-0.11	0.38	0.17	0.26	0.41	0.46	1												
15	It is essential to improve my appearance for VC	-0.08	0.31	-0.10	-0.07	0.09	-0.02	-0.04	0.56	0.37	0.23	0.42	0.66	0.84	1											
16	I feel uncomfortable or distracted seeing myself during VC	-0.43	0.02	-0.30	-0.25	-0.01	-0.01	-0.06	0.56	0.31	0.12	0.46	0.40	0.32	0.40	1										
17	During essential meetings, the video must be on	0.40	0.21	0.32	0.20	-0.01	0.07	0.20	-0.03	0.29	0.19	-0.15	-0.14	0.06	0.06	-0.30	1									
18	During general meetings, the video must be on	0.31	0.14	0.29	0.13	0.00	0.09	0.26	-0.12	0.10	0.07	-0.16	-0.04	0.05	0.06	-0.33	0.86	1								
19	During meetings, the camera can occasionally be off	0.13	0.07	0.30	-0.06	0.12	-0.11	0.03	0.17	-0.06	0.11	-0.16	-0.02	0.12	0.18	-0.15	0.09	0.08	1							
20	I have a good home office gear	0.11	0.28	0.16	0.27	0.29	0.20	0.24	0.05	-0.17	0.00	0.18	0.13	0.01	0.11	-0.34	0.18	0.29	0.02	1						
21	Switching audio on/off due to background noise prevents me from having a more fluid conversation	0.07	-0.37	-0.04	-0.08	-0.17	-0.13	-0.13	-0.07	-0.05	0.43	0.18	-0.53	-0.19	-0.35	-0.05	0.24	0.26	0.11	0.12	1					
22	Participants' body language is lost during video meetings	-0.06	0.10	-0.26	-0.21	-0.10	-0.15	-0.18	0.13	-0.40	0.23	0.26	0.06	0.15	0.07	0.01	-0.30	-0.27	0.18	0.22	0.01	1				
23	Body language improves communication in video meetings	0.27	0.10	0.55	0.62	0.38	0.59	0.49	0.07	0.35	0.45	0.25	0.20	-0.04	-0.02	-0.29	0.24	0.28	0.04	0.33	0.28	-0.17	1			
24	It is easy to access Video Conference meetings	0.53	0.40	0.75	0.52	0.55	0.53	0.58	-0.25	0.10	0.02	-0.32	-0.10	-0.38	-0.30	-0.49	0.39	0.32	0.20	0.34	0.11	-0.17	0.48	1		
25	I frequently experience audio/video/connectivity issues during Video Conferencing	-0.13	0.04	-0.14	-0.12	0.02	0.16	0.10	0.57	0.23	0.24	0.56	0.36	0.58	0.49	0.61	-0.07	-0.02	-0.12	-0.34	-0.13	0.17	-0.18	-0.43	1	
26	Generally, I am delighted with the Video Conference platform's performance	0.39	0.14	0.52	0.41	0.30	0.42	0.42	-0.14	0.02	0.11	-0.05	-0.04	-0.35	-0.28	-0.50	0.33	0.35	0.17	0.48	0.27	-0.07	0.54	0.74	-0.42	1

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MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | 10 child 145 | Large families | 1 child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

# Group "Marketing"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents my body language	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1		1																									
2	VC saves my time	1																									
3	VC improves my work-life balance	0.68	1																								
4	I can express my ideas confidently while performing VC	0.55	0.68	1																							
5	I think creatively during VC	0.37	0.63	0.59	1																						
6	The group thinks creatively during VC	0.38	0.54	0.60	0.85	1																					
7	The group has good collaboration during VC	0.55	0.59	0.55	0.78	0.87	1																				
8	I have good collaboration with the group during VC	0.32	0.51	0.62	0.78	0.77	0.72	1																			
9	VC makes me stressed and/or anxious	-0.38	-0.37	-0.23	0.12	0.19	0.09	0.05	1																		
10	VC causes me fatigue	-0.37	-0.52	-0.37	-0.27	-0.18	-0.30	-0.29	0.67	1																	
11	I spend too much time in VC	0.02	-0.07	0.00	0.10	0.28	0.27	0.13	0.54	0.57	1																
12	VC hinders my productivity	-0.43	-0.31	-0.15	0.00	0.17	0.03	0.04	0.66	0.71	0.58	1															
13	WFH has enough cyber security	0.21	0.43	0.24	0.26	0.39	0.34	0.33	-0.29	-0.36	-0.20	-0.13	1														
14	It is essential to improve my background/environment for VC	-0.06	-0.18	-0.22	-0.15	0.10	0.14	-0.12	0.45	0.48	0.53	0.60	0.13	1													
15	It is essential to improve my appearance for VC	-0.04	-0.11	-0.07	0.03	0.21	0.19	0.00	0.61	0.25	0.33	0.41	0.00	0.73	1												
16	I feel uncomfortable or distracted seeing myself during VC	-0.04	-0.25	-0.18	0.11	0.20	0.22	0.12	0.62	0.42	0.55	0.35	-0.17	0.49	0.50	1											
17	During essential meetings, the video must be on	0.15	0.07	0.07	-0.16	-0.10	-0.08	-0.16	0.06	0.35	0.10	0.31	0.03	0.41	0.20	-0.07	1										
18	During general meetings, the video must be on	0.13	-0.04	0.14	0.19	0.17	0.14	-0.01	0.27	0.43	0.34	0.29	0.04	0.33	0.13	0.03	0.51	1									
19	During meetings, the camera can occasionally be off	0.46	0.53	0.53	0.45	0.58	0.61	0.66	-0.04	-0.18	0.17	0.09	0.31	-0.03	-0.02	0.08	0.04	-0.14	1								
20	I have a good home office gear	0.41	0.48	0.47	0.29	0.29	0.23	0.38	-0.62	-0.58	-0.33	-0.35	0.58	-0.01	-0.07	-0.30	0.03	-0.12	0.26	1							
21	Switching audio on/off due to background noise prevents my body language	0.23	0.28	0.37	0.23	0.25	0.06	0.21	0.03	-0.01	-0.02	0.00	0.27	0.17	0.21	-0.02	0.42	0.40	-0.05	0.36	1						
22	Participants' body language is lost during video meetings	0.03	-0.29	0.02	-0.29	-0.13	-0.20	-0.16	0.16	0.31	0.38	0.10	-0.21	0.30	0.22	0.10	0.37	0.43	-0.19	-0.02	0.25	1					
23	Body language improves communication in video meetings	0.40	0.44	0.41	0.45	0.41	0.37	0.28	-0.12	-0.04	0.22	-0.06	0.22	0.04	-0.11	-0.11	0.33	0.52	0.32	0.26	0.46	0.19	1				
24	It is easy to access Video Conference meetings	0.46	0.47	0.56	0.32	0.38	0.34	0.51	-0.29	-0.20	0.08	-0.19	0.36	-0.13	-0.18	-0.16	0.22	0.19	0.60	0.50	0.23	0.35	0.54	1			
25	I frequently experience audio/video/connectivity issues during Video Conferencing	-0.16	-0.33	-0.27	-0.02	0.01	-0.05	-0.17	0.28	0.29	0.21	0.34	0.10	0.54	0.42	0.26	0.12	0.47	-0.32	-0.02	0.14	0.26	0.18	-0.20	1		
26	Generally, I am delighted with the Video Conference platform's performance	0.57	0.55	0.70	0.37	0.51	0.43	0.41	-0.23	-0.25	0.05	-0.21	0.46	-0.08	-0.04	-0.21	0.09	0.14	0.58	0.55	0.32	0.25	0.49	0.81	-0.18	1	

Taskbar: MAIN, Alt 306, ICT 155, EDUCATION 25, MKT 28, Construction 32, HR 15, Others 34, Topchild 145, Large families, 1 child 161, No-stress 155, stress 78, Female 118, Male 187, 55+, general break / 90 min / 60 min / every now and again

### Group "Construction"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1		1																									
2	VC saves my time	1																									
3	VC improves my work-life balance	0.55	1																								
4	I can express my ideas confidently while performing VC	0.46	0.49	1																							
5	I think creatively during VC	0.58	0.55	0.84	1																						
6	The group thinks creatively during VC	0.52	0.43	0.67	0.79	1																					
7	The group has good collaboration during VC	0.58	0.53	0.67	0.76	0.71	1																				
8	I have good collaboration with the group during VC	0.52	0.47	0.72	0.77	0.69	0.78	1																			
9	VC makes me stressed and/or anxious	0.25	-0.05	0.42	0.39	0.35	0.41	0.29	1																		
10	VC causes me fatigue	0.37	0.08	0.51	0.50	0.41	0.43	0.55	0.72	1																	
11	I spend too much time in VC	0.37	0.08	0.35	0.48	0.43	0.27	0.32	0.50	0.47	1																
12	VC hinders my productivity	0.27	-0.01	0.29	0.28	0.23	0.22	0.28	0.69	0.72	0.68	1															
13	WFH has enough cyber security	0.44	0.34	0.66	0.61	0.57	0.53	0.63	0.53	0.61	0.39	0.40	1														
14	It is essential to improve my background/environment for VC	0.29	0.28	0.30	0.30	0.49	0.27	0.17	0.50	0.32	0.43	0.38	0.43	1													
15	It is essential to improve my appearance for VC	0.36	0.27	0.39	0.57	0.43	0.51	0.39	0.51	0.34	0.51	0.43	0.50	0.50	1												
16	I feel uncomfortable or distracted seeing myself during VC	0.50	0.19	0.40	0.38	0.25	0.48	0.33	0.78	0.72	0.42	0.64	0.57	0.44	0.56	1											
17	During essential meetings, the video must be on	0.33	0.18	0.41	0.33	0.14	0.16	0.11	0.35	0.33	0.55	0.38	0.26	0.24	0.33	0.32	1										
18	During general meetings, the video must be on	0.57	0.26	0.55	0.51	0.43	0.36	0.21	0.50	0.52	0.59	0.44	0.43	0.42	0.43	0.57	0.75	1									
19	During meetings, the camera can occasionally be off	0.26	0.23	0.18	0.26	0.29	0.18	0.37	-0.06	0.00	0.32	-0.02	0.15	-0.16	-0.14	-0.09	0.08	0.09	1								
20	I have a good home office gear	0.41	0.63	0.52	0.62	0.41	0.46	0.51	0.02	0.09	0.26	-0.07	0.28	0.13	0.14	0.09	0.29	0.35	0.48	1							
21	Switching audio on/off due to background noise prevents me from having a more fluid conversation	0.35	-0.02	0.24	0.16	0.12	0.12	0.27	0.54	0.61	0.37	0.55	0.56	0.34	0.17	0.63	0.31	0.41	0.13	0.03	1						
22	Participants' body language is lost during video meetings	0.58	0.35	0.27	0.31	0.16	0.31	0.52	0.09	0.44	0.20	0.32	0.45	-0.01	0.17	0.44	0.14	0.18	0.32	0.32	0.40	1					
23	Body language improves communication in video meetings	0.25	0.34	0.30	0.16	0.08	0.31	0.24	0.19	-0.02	-0.01	-0.21	0.24	0.12	0.13	0.23	0.15	0.21	0.33	0.41	0.04	0.20	1				
24	It is easy to access Video Conference meetings	0.28	0.33	0.13	0.15	0.24	0.01	0.36	-0.24	0.07	0.08	-0.07	0.24	0.00	-0.13	-0.02	-0.02	0.07	0.63	0.43	0.18	0.58	0.27	1			
25	I frequently experience audio/video/connectivity issues during Video Conferencing	0.52	0.28	0.24	0.27	0.21	0.17	0.12	0.39	0.41	0.23	0.38	0.22	0.24	0.14	0.53	0.22	0.51	0.22	0.25	0.38	0.40	0.13	0.37	1		
26	Generally, I am delighted with the Video Conference platform's performance	0.37	0.40	0.22	0.28	0.39	0.32	0.47	-0.06	0.08	0.34	0.03	0.43	0.27	0.17	0.10	0.13	0.25	0.57	0.51	0.22	0.37	0.47	0.56	-0.02	1	

Taskbar: MAIN | Alt 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | Topchild 145 | Large families | Fchild 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break | 90 min | 60 min | every now and again



### Group "RH/Recruitment"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents participants' body language	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance	
1																										
2		1																								
3		0.73	1																							
4		0.27	0.51	1																						
5		0.38	0.73	0.22	1																					
6		0.45	0.69	0.27	0.92	1																				
7		-0.02	0.16	0.25	0.43	0.60	1																			
8		-0.22	0.01	0.42	0.23	0.24	0.55	1																		
9		-0.67	-0.58	-0.28	-0.33	-0.46	-0.07	0.22	1																	
10		-0.45	-0.40	-0.43	0.02	-0.11	0.03	0.14	0.80	1																
11		-0.51	-0.28	0.00	0.00	-0.07	-0.23	0.18	0.27	0.25	1															
12		-0.44	-0.43	-0.29	-0.33	-0.37	-0.01	-0.12	0.59	0.39	0.20	1														
13		0.14	0.40	0.28	0.43	0.44	0.24	0.44	-0.20	-0.20	0.44	0.01	1													
14		-0.27	0.11	0.24	0.29	0.16	0.02	0.25	0.11	0.20	0.42	0.29	0.35	1												
15		0.03	0.37	0.22	0.49	0.52	0.43	0.25	-0.45	-0.37	0.19	0.09	0.66	0.53	1											
16		-0.19	-0.06	-0.37	0.00	-0.17	-0.17	-0.26	0.48	0.54	0.00	0.33	-0.30	-0.22	-0.36	1										
17		0.00	-0.18	0.07	-0.13	-0.05	-0.08	0.13	-0.26	-0.17	0.40	-0.08	0.09	0.06	0.05	-0.32	1									
18		0.37	-0.04	0.03	-0.20	-0.07	-0.22	-0.26	-0.46	-0.34	0.00	-0.31	-0.25	-0.40	-0.28	-0.24	0.79	1								
19		-0.11	0.08	0.05	0.04	-0.16	-0.02	0.37	0.24	0.22	-0.07	0.11	-0.03	0.04	0.00	0.55	-0.06	-0.22	1							
20		-0.27	-0.42	0.25	-0.26	-0.08	0.27	0.63	0.22	0.12	0.42	0.15	0.28	0.18	0.05	-0.50	0.55	0.20	-0.13	1						
21		0.38	0.38	0.12	0.64	0.57	0.12	0.14	-0.28	-0.13	0.00	-0.53	0.18	-0.18	-0.03	-0.13	0.11	0.24	-0.19	-0.11	1					
22		0.03	-0.33	-0.41	-0.40	-0.52	-0.32	-0.29	0.26	0.08	-0.51	0.27	-0.58	-0.27	-0.49	0.11	-0.07	0.14	0.09	-0.20	-0.01	1				
23		0.19	0.27	0.27	0.36	0.28	0.07	0.21	-0.14	0.23	0.06	-0.08	0.07	0.70	0.25	-0.31	0.23	0.03	0.06	0.21	-0.03	-0.12	1			
24		0.03	0.00	0.05	0.11	0.09	0.02	0.19	-0.29	-0.01	0.45	-0.04	0.43	0.44	0.40	-0.27	0.63	0.31	0.08	0.35	-0.04	-0.36	0.52	1		
25		-0.22	-0.33	-0.24	-0.30	-0.29	-0.17	-0.31	0.50	0.34	-0.27	0.30	-0.60	-0.27	-0.60	0.53	-0.45	-0.23	0.02	-0.26	-0.09	0.38	-0.43	-0.68	1	
26		0.31	0.29	0.45	0.15	0.06	-0.13	0.41	-0.31	-0.30	0.28	-0.37	0.38	0.01	0.08	-0.23	0.64	0.51	0.34	0.33	0.36	-0.15	0.23	0.52	-0.60	1

Taskbar: MAIN, Alt 306, ICT 155, EDUCATION 25, MKT 28, Construction 32, HR 15, Others 34, Topchild 145, Large families, 1 child 161, No-stress 155, stress 78, Female 118, Male 187, 55+, general break / 90 min / 60 min / every now and again

Group "Others"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents participants' body language	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance	
1																										
2	VC saves my time	1																								
3	VC improves my work-life balance	0.38	1																							
4	I can express my ideas confidently while performing VC	0.46	0.14	1																						
5	I think creatively during VC	0.03	0.31	0.39	1																					
6	The group thinks creatively during VC	0.33	0.28	0.52	0.76	1																				
7	The group has good collaboration during VC	0.20	0.37	0.45	0.57	0.77	1																			
8	I have good collaboration with the group during VC	0.13	0.56	0.17	0.45	0.56	0.64	1																		
9	VC makes me stressed and/or anxious	0.19	0.21	0.08	0.17	0.22	0.25	0.28	1																	
10	VC causes me fatigue	0.18	0.23	0.47	0.21	0.42	0.51	0.35	0.61	1																
11	I spend too much time in VC	-0.14	0.38	-0.12	0.27	0.21	0.22	0.37	0.50	0.46	1															
12	VC hinders my productivity	-0.12	0.36	-0.16	0.30	0.27	0.40	0.48	0.46	0.33	0.85	1														
13	WFH has enough cyber security	0.13	0.28	0.53	0.39	0.47	0.52	0.58	0.38	0.59	0.29	0.33	1													
14	It is essential to improve my background/environment for VC	-0.20	-0.05	0.05	0.22	0.14	0.12	0.17	0.36	0.39	0.62	0.52	0.16	1												
15	It is essential to improve my appearance for VC	0.02	0.10	0.22	0.37	0.34	0.25	0.31	0.33	0.42	0.52	0.49	0.27	0.78	1											
16	I feel uncomfortable or distracted seeing myself during VC	0.33	0.10	0.20	0.13	0.15	0.22	0.17	0.50	0.43	0.47	0.50	0.15	0.56	0.58	1										
17	During essential meetings, the video must be on	0.11	0.19	0.25	0.17	0.05	-0.01	0.20	-0.02	0.28	0.23	-0.07	0.14	0.45	0.31	0.16	1									
18	During general meetings, the video must be on	0.25	0.29	0.35	0.23	0.17	0.28	0.30	0.25	0.47	0.34	0.23	0.29	0.50	0.45	0.60	0.61	1								
19	During meetings, the camera can occasionally be off	0.14	0.05	-0.03	0.05	0.13	0.00	0.11	0.29	0.11	0.32	0.35	-0.07	0.25	0.40	0.44	0.03	-0.04	1							
20	I have a good home office gear	-0.11	0.09	0.44	0.54	0.48	0.31	0.30	-0.02	0.30	0.24	0.15	0.56	0.13	0.23	-0.05	0.31	0.18	0.12	1						
21	Switching audio on/off due to background noise prevents participants' body language	0.51	0.20	0.22	0.11	0.15	0.00	0.02	0.51	0.33	0.30	0.24	0.14	0.34	0.30	0.47	0.26	0.46	0.21	-0.04	1					
22	Body language improves communication in video meetings	0.07	0.37	-0.06	-0.02	-0.21	-0.18	0.11	0.17	0.13	0.21	0.02	0.12	0.24	0.23	0.10	0.59	0.44	0.03	-0.02	0.25	1				
23	It is easy to access Video Conference meetings	0.41	0.19	0.46	0.48	0.39	0.20	0.06	0.45	0.35	0.04	0.04	0.27	0.09	0.19	0.27	0.15	0.31	0.12	0.29	0.52	0.04	1			
24	I frequently experience audio/video/connectivity issues during Video Conferencing	-0.01	0.44	0.34	0.39	0.33	0.29	0.56	-0.04	0.07	0.17	0.22	0.35	-0.01	0.25	-0.05	0.04	-0.08	0.07	0.25	-0.19	0.01	0.03	1		
25	Generally, I am delighted with the Video Conference platform's performance	0.33	0.22	0.19	0.36	0.33	0.30	0.07	0.42	0.27	0.38	0.52	0.20	0.27	0.27	0.56	-0.05	0.31	0.33	0.00	0.46	0.00	0.41	-0.11	1	
26	Generally, I am delighted with the Video Conference platform's performance	0.44	0.09	0.70	0.49	0.55	0.36	0.18	0.14	0.28	0.02	0.08	0.58	0.12	0.35	0.39	0.10	0.34	0.18	0.47	0.17	0.01	0.42	0.15	0.51	1

Taskbar: MAIN, AI 306, ICT 155, EDUCATION 25, MKT 28, Construction 32, HR 15, "Others" 34, 10-child 145, Large families 1, 1-child 161, No-stress 155, stress 78, Female 118, Male 187, 55+, general break / 90 min / 60 min / every now and again

### Group "No Child"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																										
2		1																								
3		0.57	1																							
4		0.42	0.34	1																						
5		0.25	0.32	0.60	1																					
6		0.25	0.31	0.60	0.74	1																				
7		0.08	0.36	0.55	0.66	0.78	1																			
8		0.01	0.39	0.52	0.59	0.68	0.86	1																		
9		-0.24	-0.03	-0.32	-0.03	0.09	0.03	0.14	1																	
10		-0.26	-0.02	-0.22	0.02	0.08	0.10	0.17	0.83	1																
11		0.03	0.23	0.07	0.05	0.12	0.11	0.20	0.57	0.67	1															
12		-0.02	0.25	-0.10	0.05	0.18	0.12	0.28	0.62	0.69	0.59	1														
13		-0.11	0.34	0.05	0.22	0.34	0.38	0.46	0.45	0.47	0.42	0.39	1													
14		0.01	-0.09	0.07	0.08	0.25	0.10	0.05	0.46	0.55	0.29	0.43	0.37	1												
15		0.02	-0.10	0.00	0.22	0.33	0.18	0.05	0.50	0.41	0.09	0.18	0.25	0.74	1											
16		0.37	0.10	0.11	0.28	0.25	-0.02	0.06	0.31	0.37	0.08	0.41	0.12	0.44	0.45	1										
17		0.23	0.01	0.15	0.10	0.10	0.03	0.05	0.17	0.00	-0.13	-0.19	-0.31	0.06	0.35	0.12	1									
18		0.23	-0.11	0.04	0.15	-0.01	-0.05	-0.03	0.37	0.23	0.04	0.07	-0.39	0.08	0.23	0.30	0.67	1								
19		0.12	0.10	0.31	0.24	0.40	0.11	0.07	0.02	0.21	0.33	0.12	0.32	0.27	0.20	0.27	-0.04	-0.28	1							
20		-0.05	0.11	0.09	0.04	0.13	0.14	0.19	0.19	0.30	0.28	0.20	0.07	0.07	0.07	-0.03	0.19	0.05	0.24	1						
21		0.43	0.07	-0.04	0.08	0.00	-0.33	-0.27	0.30	0.26	0.17	0.29	0.17	0.53	0.38	0.60	0.14	0.34	0.15	-0.19	1					
22		0.36	0.25	-0.18	-0.05	0.05	-0.10	-0.12	0.32	0.24	0.19	0.35	-0.16	-0.01	-0.01	0.17	0.30	0.52	-0.23	-0.09	0.37	1				
23		0.06	0.16	0.39	0.60	0.43	0.31	0.26	0.11	0.12	0.16	0.12	-0.02	0.17	0.20	0.20	0.23	0.21	0.14	0.27	0.07	0.06	1			
24		-0.17	0.15	0.48	0.33	0.35	0.48	0.54	0.14	0.20	0.41	0.18	0.22	0.11	0.10	-0.10	0.09	0.01	0.24	0.07	-0.20	0.08	0.35	1		
25		0.19	-0.02	0.07	0.33	0.18	0.18	0.16	0.36	0.22	-0.01	0.21	-0.09	0.28	0.46	0.50	0.43	0.72	-0.25	-0.02	0.39	0.30	0.26	0.00	1	
26		0.48	0.25	0.55	0.37	0.46	0.20	0.15	0.12	-0.01	0.13	0.00	0.01	0.23	0.33	0.20	0.47	0.39	0.29	0.04	0.35	0.36	0.34	0.38	0.25	1

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | Nochild 145 | Large families | Echild 101 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

### Group "Large Families"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents my work-life balance	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																										
2		0.31																								
3		0.40	1																							
4		0.13	0.62	1																						
5		0.26	0.55	0.73	1																					
6		0.29	0.49	0.84	0.87	1																				
7		0.44	0.59	0.73	0.81	0.83	1																			
8		0.37	0.61	0.75	0.83	0.88	0.88	1																		
9		0.31	-0.13	-0.03	0.04	0.21	0.14	0.14	1																	
10		0.11	-0.30	-0.12	0.00	0.09	-0.02	-0.09	0.66	1																
11		0.19	-0.03	0.02	0.03	0.12	-0.08	-0.09	0.21	0.39	1															
12		0.06	0.08	0.24	0.27	0.42	0.29	0.26	0.27	0.29	0.60	1														
13		0.30	0.34	0.41	0.45	0.51	0.42	0.39	0.25	0.10	0.12	0.13	1													
14		-0.05	-0.17	0.12	0.22	0.29	0.10	0.13	0.65	0.68	0.11	0.37	0.34	1												
15		0.43	-0.12	-0.08	0.19	0.21	0.20	0.18	0.57	0.53	0.26	0.33	0.12	0.55	1											
16		0.02	-0.15	0.02	0.07	0.07	-0.09	-0.04	0.68	0.66	0.15	-0.05	0.28	0.76	0.43	1										
17		0.28	0.16	0.19	0.16	0.16	0.11	0.05	-0.05	0.12	0.18	0.34	0.22	0.08	0.19	-0.04	1									
18		0.22	0.11	0.38	0.21	0.39	0.15	0.16	0.20	0.15	0.02	0.32	0.36	0.32	0.14	0.16	0.63	1								
19		0.10	0.37	0.44	0.29	0.29	0.38	0.42	0.09	-0.08	0.38	0.26	0.17	0.00	-0.04	-0.04	-0.32	1								
20		0.32	0.37	0.27	0.41	0.34	0.36	0.36	-0.12	0.22	0.47	0.40	0.16	0.09	0.30	-0.01	0.17	-0.05	0.20	1						
21		0.24	-0.05	-0.10	-0.03	0.09	-0.07	-0.03	0.47	0.47	0.63	0.40	0.29	0.36	0.35	0.31	-0.02	0.09	0.07	0.41	1					
22		0.41	-0.02	-0.13	-0.06	-0.13	-0.12	-0.25	0.08	0.24	0.57	0.19	0.00	0.03	0.40	0.06	0.19	0.10	-0.04	0.49	0.61	1				
23		0.17	0.65	0.47	0.32	0.28	0.27	0.31	-0.02	0.06	0.45	0.27	0.13	0.01	0.02	0.06	0.08	-0.12	0.56	0.54	0.33	0.28	1			
24		0.49	0.70	0.48	0.42	0.40	0.51	0.49	-0.09	-0.12	0.28	0.01	0.50	-0.15	0.00	-0.02	0.12	-0.06	0.50	0.61	0.26	0.63	0.27	0.63	1	
25		-0.21	-0.25	0.09	0.02	0.07	-0.09	-0.05	0.34	0.22	0.01	0.20	0.14	0.39	0.24	0.28	0.37	0.40	0.03	-0.28	-0.01	-0.07	-0.04	-0.22	0.22	1
26		0.34	0.48	0.54	0.70	0.65	0.59	0.71	-0.01	-0.19	0.06	0.11	0.51	0.09	0.02	-0.07	0.00	0.02	0.42	0.38	0.22	0.07	0.30	0.61	-0.19	0.61

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | Topchild 145 | Large families | Exchild 101 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

Group "One or More Children"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
		VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation during meetings	Participants' body language is lost during video meetings	Body language improves communication in video meeting	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance	
1		1																									
2	VC saves my time	1																									
3	VC improves my work-life balance	0.52	1																								
4	I can express my ideas confidently while performing VC	0.42	0.50	1																							
5	I think creatively during VC	0.31	0.48	0.61	1																						
6	The group thinks creatively during VC	0.35	0.41	0.60	0.78	1																					
7	The group has good collaboration during VC	0.41	0.37	0.57	0.63	0.73	1																				
8	I have good collaboration with the group during VC	0.38	0.38	0.57	0.60	0.62	0.80	1																			
9	VC makes me stressed and/or anxious	-0.02	-0.12	-0.08	-0.02	0.02	0.06	0.02	1																		
10	VC causes me fatigue	0.02	-0.15	0.05	-0.04	-0.01	0.08	0.06	0.61	1																	
11	I spend too much time in VC	-0.07	-0.10	-0.04	0.08	0.08	0.08	0.08	0.32	0.47	1																
12	VC hinders my productivity	-0.13	-0.06	-0.03	0.05	0.07	0.08	0.00	0.45	0.46	0.60	1															
13	WFH has enough cyber security	0.18	0.26	0.41	0.29	0.36	0.39	0.38	0.15	0.08	0.14	0.18	1														
14	It is essential to improve my background/environment for VC	0.06	0.21	0.13	0.25	0.23	0.24	0.23	0.26	0.27	0.32	0.31	0.20	1													
15	It is essential to improve my appearance for VC	0.12	0.20	0.11	0.23	0.21	0.25	0.23	0.34	0.24	0.28	0.29	0.17	0.78	1												
16	I feel uncomfortable or distracted seeing myself during VC	0.17	0.10	0.09	0.16	0.09	0.11	0.08	0.46	0.49	0.26	0.34	0.21	0.40	0.45	1											
17	During essential meetings, the video must be on	0.24	0.32	0.22	0.17	0.02	0.05	0.17	-0.11	0.13	0.08	0.03	0.12	0.18	0.13	0.10	1										
18	During general meetings, the video must be on	0.26	0.24	0.24	0.14	0.07	0.08	0.16	0.02	0.19	0.12	0.04	0.09	0.22	0.17	0.22	0.70	1									
19	During meetings, the camera can occasionally be off	0.08	0.12	0.20	0.16	0.18	0.21	0.15	0.09	0.04	0.11	0.18	0.18	0.01	0.11	0.15	0.02	-0.01	1								
20	I have a good home office gear	0.22	0.35	0.27	0.32	0.32	0.24	0.34	-0.13	-0.07	0.20	0.10	0.36	0.14	0.11	-0.08	0.20	0.10	0.22	1							
21	Switching audio on/off due to background noise prevents me from having a more fluid conversation during meetings	0.30	0.08	0.11	0.07	0.10	0.17	0.24	0.14	0.15	0.10	0.05	0.17	0.10	0.09	0.15	0.16	0.19	0.05	0.20	0.22	1					
22	Participants' body language is lost during video meetings	0.13	0.10	0.09	0.15	-0.06	-0.07	-0.04	0.11	0.17	0.26	0.21	0.07	0.13	0.03	0.19	0.17	0.17	0.19	0.26	0.22	0.22	1				
23	Body language improves communication in video meeting	0.10	0.12	0.29	0.21	0.19	0.20	0.17	0.07	0.13	0.13	0.04	0.26	0.01	0.03	0.07	0.14	0.19	0.29	0.20	0.19	0.11	0.31	1			
24	It is easy to access Video Conference meetings	0.40	0.43	0.39	0.32	0.29	0.36	0.43	-0.21	-0.09	0.12	-0.09	0.20	0.06	0.01	-0.06	0.27	0.17	0.28	0.41	0.10	0.19	0.31	0.10	0.10	1	
25	I frequently experience audio/video/connectivity issues during Video Conferencing	-0.02	-0.08	0.00	0.03	0.07	0.03	-0.02	0.38	0.29	0.23	0.33	0.07	0.18	0.26	0.36	-0.03	0.16	0.17	-0.03	0.23	0.09	0.10	-0.17	0.23	1	
26	Generally, I am delighted with the Video Conference platform's performance	0.46	0.36	0.44	0.28	0.38	0.40	0.47	-0.21	-0.08	0.05	-0.02	0.38	0.21	0.16	0.08	0.21	0.18	0.26	0.36	0.20	0.08	0.23	0.62	-0.10	0.62	1

Taskbar: MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | Others 34 | 10 child 145 | Large families 1 | 1 child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

### Group "No Stress"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1		VC saves my time	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance	
2		1																								
3		0.38																								
4		0.34	0.33																							
5		0.24	0.35	0.56																						
6		0.37	0.34	0.46	0.70																					
7		0.28	0.33	0.46	0.56	0.68																				
8		0.22	0.37	0.46	0.53	0.54	0.80																			
9		0.00	-0.05	0.00	0.01	-0.04	0.01	0.00																		
10		-0.02	-0.19	0.07	-0.06	-0.05	0.01	-0.01	0.26																	
11		-0.25	-0.17	-0.15	-0.05	-0.10	-0.11	-0.03	0.10	0.39																
12		-0.19	-0.14	-0.11	-0.11	-0.15	-0.16	-0.08	0.16	0.29	0.54															
13		0.20	0.26	0.21	0.16	0.20	0.18	0.19	-0.18	0.01	-0.01	0.00														
14		-0.05	0.10	0.02	0.03	0.07	0.06	0.05	0.05	0.09	0.24	0.19	0.15													
15		0.13	0.16	0.02	0.13	0.10	0.12	0.09	0.10	-0.07	0.08	0.03	0.12	0.54												
16		0.04	-0.09	-0.09	-0.07	-0.10	0.00	-0.07	0.33	0.29	0.18	0.18	-0.05	0.18	0.21											
17		0.12	0.09	0.06	0.03	0.02	-0.05	-0.01	-0.02	0.20	0.10	0.02	-0.01	0.12	0.14	-0.01										
18		0.09	0.04	0.04	0.03	-0.04	-0.07	-0.08	0.00	0.12	0.08	-0.04	-0.11	0.06	0.11	0.05	0.69									
19		0.07	0.10	0.14	0.13	0.17	0.12	0.13	0.03	0.00	0.09	0.13	0.11	0.15	0.14	0.11	-0.09	-0.26								
20		0.17	0.38	0.30	0.34	0.31	0.25	0.24	-0.12	0.02	0.05	-0.08	0.28	0.11	0.18	-0.06	0.22	0.06	0.15							
21		0.11	-0.06	0.02	-0.01	-0.02	-0.11	-0.09	0.14	0.09	0.18	0.09	0.01	0.15	0.15	0.27	0.09	0.14	0.03	0.01						
22		-0.01	0.02	-0.12	-0.11	-0.20	-0.16	-0.14	0.16	0.12	0.20	0.16	0.03	0.16	0.09	0.18	0.09	0.08	0.09	0.11	0.10					
23		0.14	0.03	0.12	0.14	0.13	0.10	0.07	0.02	0.07	0.02	-0.07	0.08	-0.07	0.03	-0.02	0.06	0.10	0.13	0.15	0.09	-0.06				
24		0.15	0.22	0.17	0.19	0.20	0.25	0.30	-0.07	0.15	0.20	0.07	0.10	0.05	0.02	-0.04	0.15	0.07	0.11	0.33	0.00	0.01	0.17			
25		0.02	-0.12	0.02	0.01	-0.12	-0.14	-0.15	0.17	0.05	0.14	0.11	-0.13	-0.05	0.00	0.13	0.01	0.05	0.15	0.15	-0.15	0.18	0.06	0.11	-0.07	
26		0.35	0.23	0.35	0.25	0.41	0.35	0.29	-0.16	0.04	-0.12	-0.25	0.30	0.07	0.21	-0.11	0.22	0.15	0.07	0.41	0.04	-0.10	0.35	0.48	-0.25	

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | "Others" 34 | No-child 145 | Large families | E-child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

# Group "Stress"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																									
2	1																								
3	0.76	1																							
4	0.63	0.65	1																						
5	0.65	0.69	0.72	1																					
6	0.56	0.62	0.68	0.84	1																				
7	0.51	0.58	0.66	0.63	0.72	1																			
8	0.56	0.60	0.76	0.58	0.59	0.66	1																		
9	-0.04	-0.05	-0.03	0.05	0.16	-0.04	-0.17	1																	
10	0.13	0.16	0.26	0.25	0.26	0.20	0.20	0.15	1																
11	0.24	0.26	0.36	0.41	0.38	0.36	0.33	0.11	0.52	1															
12	0.17	0.31	0.34	0.37	0.48	0.52	0.35	0.20	0.52	0.65	1														
13	0.31	0.42	0.54	0.46	0.53	0.46	0.59	0.04	0.06	0.27	0.29	1													
14	0.36	0.46	0.36	0.52	0.45	0.47	0.38	0.14	0.48	0.37	0.50	0.25	1												
15	0.37	0.46	0.35	0.49	0.52	0.42	0.38	0.20	0.51	0.30	0.47	0.27	0.81	1											
16	0.38	0.43	0.24	0.35	0.33	0.29	0.17	0.23	0.11	0.00	0.36	0.14	0.42	0.43	1										
17	0.57	0.52	0.53	0.44	0.34	0.30	0.43	-0.03	0.43	0.30	0.16	0.14	0.45	0.45	0.23	1									
18	0.54	0.54	0.67	0.55	0.49	0.50	0.54	0.05	0.39	0.37	0.29	0.32	0.47	0.42	0.35	0.78	1								
19	0.35	0.29	0.37	0.26	0.31	0.19	0.34	0.04	0.11	0.28	0.33	0.34	0.11	0.27	0.39	0.14	0.19	1							
20	0.20	0.22	0.45	0.37	0.38	0.42	0.53	0.13	0.09	0.44	0.40	0.45	0.18	0.15	0.09	0.22	0.27	0.27	1						
21	0.47	0.40	0.30	0.40	0.39	0.28	0.41	0.22	0.18	0.24	0.30	0.29	0.33	0.27	0.24	0.40	0.37	0.26	0.35	1					
22	0.36	0.34	0.33	0.31	0.21	0.23	0.38	0.02	0.18	0.40	0.32	0.17	0.13	0.09	0.25	0.42	0.38	0.43	0.48	0.48	1				
23	0.43	0.39	0.46	0.43	0.50	0.43	0.34	0.21	0.18	0.43	0.41	0.42	0.28	0.35	0.15	0.36	0.32	0.37	0.60	0.41	0.33	1			
24	0.50	0.54	0.65	0.47	0.39	0.39	0.62	-0.15	0.14	0.29	0.19	0.41	0.22	0.22	0.15	0.39	0.39	0.48	0.40	0.22	0.39	0.43	1		
25	0.13	0.13	0.20	0.28	0.35	0.26	0.19	0.24	0.18	0.19	0.41	0.27	0.34	0.34	0.37	0.16	0.44	0.26	0.13	0.23	0.06	0.03	0.02	1	
26	0.58	0.57	0.70	0.54	0.53	0.53	0.63	-0.05	0.16	0.40	0.40	0.55	0.27	0.34	0.40	0.46	0.55	0.60	0.49	0.31	0.44	0.44	0.69	0.23	1

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | "Others" 34 | No-child 145 | Large families | 1-child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

### Group "Female"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																									
2	1																								
3	0.66	1																							
4	0.47	0.51	1																						
5	0.44	0.48	0.68	1																					
6	0.42	0.48	0.61	0.82	1																				
7	0.37	0.43	0.56	0.63	0.74	1																			
8	0.46	0.49	0.59	0.56	0.58	0.73	1																		
9	-0.11	-0.15	-0.03	0.08	0.06	0.07	0.05	1																	
10	0.06	-0.06	0.11	0.21	0.16	0.19	0.21	0.57	1																
11	0.03	-0.04	-0.05	0.14	0.18	0.11	0.10	0.30	0.47	1															
12	-0.03	-0.02	0.00	0.14	0.14	0.18	0.09	0.49	0.45	0.67	1														
13	0.37	0.36	0.42	0.31	0.36	0.41	0.42	0.08	0.10	0.03	0.06	1													
14	0.13	0.16	0.14	0.16	0.16	0.19	0.16	0.33	0.27	0.48	0.39	0.12	1												
15	0.12	0.17	0.15	0.17	0.21	0.23	0.19	0.39	0.16	0.23	0.25	0.18	0.64	1											
16	0.07	-0.06	0.01	0.11	0.11	0.17	0.11	0.55	0.49	0.29	0.40	0.07	0.32	0.34	1										
17	0.32	0.26	0.23	0.13	0.11	0.12	0.21	-0.10	0.08	0.14	0.01	0.18	0.29	0.09	-0.04	1									
18	0.33	0.30	0.29	0.29	0.19	0.17	0.23	0.03	0.16	0.20	0.07	0.12	0.28	0.13	0.13	0.69	1								
19	0.23	0.15	0.14	0.14	0.19	0.14	0.22	0.29	0.13	0.16	0.24	0.15	0.12	0.24	0.31	0.04	-0.11	1							
20	0.33	0.30	0.42	0.40	0.39	0.33	0.39	-0.12	0.10	0.13	0.01	0.32	0.05	0.14	-0.08	0.25	0.14	0.13	1						
21	0.32	0.11	0.19	0.21	0.18	0.10	0.20	0.18	0.12	0.18	0.17	0.27	0.18	0.11	0.24	0.32	0.22	0.20	0.18	1					
22	0.25	0.09	0.01	0.00	-0.01	0.04	0.12	0.10	0.15	0.18	0.18	0.13	0.21	0.09	0.21	0.05	0.05	0.16	0.19	0.27	1				
23	0.32	0.32	0.32	0.34	0.24	0.32	0.26	0.02	0.13	0.10	0.08	0.21	0.12	0.16	0.04	0.21	0.18	0.18	0.47	0.19	0.17	1			
24	0.47	0.46	0.50	0.43	0.42	0.37	0.51	-0.24	0.01	0.14	-0.04	0.28	0.08	0.12	-0.04	0.30	0.25	0.25	0.48	0.12	0.17	0.41	1		
25	0.13	-0.03	0.00	0.14	0.13	0.07	-0.04	0.46	0.32	0.22	0.38	0.04	0.19	0.16	0.42	-0.09	0.19	0.26	-0.12	0.09	0.13	0.05	-0.04	1	
26	0.46	0.49	0.60	0.43	0.46	0.46	0.50	-0.16	-0.03	0.05	-0.07	0.44	0.13	0.20	-0.11	0.32	0.24	0.19	0.52	0.20	0.13	0.44	0.70	-0.14	1

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | "Others" 34 | No-child 145 | Large families | E-child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again



### Group "Male"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																									
2	1																								
3	0.58	1																							
4	0.42	0.48	1																						
5	0.36	0.48	0.66	1																					
6	0.37	0.41	0.58	0.76	1																				
7	0.31	0.38	0.53	0.60	0.73	1																			
8	0.29	0.40	0.54	0.57	0.62	0.77	1																		
9	-0.10	-0.16	-0.12	-0.05	-0.02	0.05	-0.01	1																	
10	-0.05	-0.16	-0.04	-0.04	-0.03	0.04	0.03	0.59	1																
11	-0.08	-0.05	-0.05	0.03	0.01	0.03	0.08	0.34	0.50	1															
12	-0.09	-0.08	-0.09	-0.05	-0.04	0.00	0.00	0.49	0.49	0.60	1														
13	0.22	0.29	0.36	0.32	0.34	0.33	0.36	0.13	0.08	0.11	0.15	1													
14	0.11	0.17	0.14	0.19	0.19	0.18	0.15	0.25	0.26	0.30	0.31	0.23	1												
15	0.17	0.19	0.13	0.24	0.24	0.24	0.19	0.30	0.20	0.21	0.25	0.22	0.67	1											
16	0.11	0.00	-0.02	0.04	0.03	0.07	0.01	0.50	0.43	0.24	0.36	0.09	0.34	0.36	1										
17	0.24	0.20	0.18	0.13	0.04	0.02	0.08	-0.01	0.19	0.16	0.05	0.05	0.23	0.20	0.05	1									
18	0.23	0.17	0.19	0.15	0.06	0.07	0.08	0.10	0.22	0.20	0.10	0.03	0.22	0.21	0.17	0.70	1								
19	0.12	0.14	0.20	0.18	0.24	0.20	0.21	0.10	0.05	0.16	0.15	0.21	0.08	0.13	0.12	-0.04	-0.15	1							
20	0.19	0.33	0.33	0.34	0.30	0.28	0.35	-0.08	-0.02	0.16	0.01	0.30	0.10	0.13	-0.09	0.20	0.12	0.20	1						
21	0.26	0.07	0.02	0.03	0.02	0.00	0.05	0.24	0.19	0.20	0.21	0.10	0.22	0.20	0.21	0.24	0.07	0.06	0.06	1					
22	0.11	0.08	-0.03	-0.02	-0.12	-0.09	-0.07	0.19	0.20	0.24	0.23	0.06	0.15	0.08	0.23	0.19	0.17	0.12	0.17	0.24	1				
23	0.16	0.17	0.24	0.28	0.27	0.23	0.22	0.10	0.09	0.13	0.04	0.21	0.05	0.11	0.06	0.13	0.13	0.26	0.25	0.12	0.04	1			
24	0.32	0.39	0.39	0.33	0.29	0.30	0.39	-0.19	-0.02	0.15	-0.04	0.22	0.07	0.05	-0.08	0.22	0.14	0.24	0.39	0.04	0.11	0.27	1		
25	0.07	-0.04	0.00	0.06	0.03	0.01	-0.04	0.38	0.26	0.21	0.32	0.22	0.16	0.18	0.34	0.02	0.20	0.12	-0.11	0.26	0.15	0.09	-0.10	1	
26	0.46	0.39	0.48	0.37	0.42	0.37	0.41	-0.17	-0.10	0.03	-0.09	0.36	0.17	0.21	-0.03	0.28	0.22	0.22	0.42	0.13	0.06	0.28	0.57	-0.12	1

MAIN | AI 306 | ICT 155 | EDUCATION 25 | MKT 28 | Construction 32 | HR 15 | "Others" 34 | No-child 145 | Large families | 1-child 161 | No-stress 155 | stress 78 | Female 118 | Male 187 | 55+ | general break / 90 min / 60 min / every now and again

Group "Age band 55+"

Microsoft Excel - Video conferencing and Work From Home\_v01.xlsx

	VC saves my time	VC improves my work-life balance	I can express my ideas confidently while performing VC	I think creatively during VC	The group thinks creatively during VC	The group has good collaboration during VC	I have good collaboration with the group during VC	VC makes me stressed and/or anxious	VC causes me fatigue	I spend too much time in VC	VC hinders my productivity	WFH has enough cyber security	It is essential to improve my background/environment for VC	It is essential to improve my appearance for VC	I feel uncomfortable or distracted seeing myself during VC	During essential meetings, the video must be on	During general meetings, the video must be on	During meetings, the camera can occasionally be off	I have a good home office gear	Switching audio on/off due to background noise prevents me from having a more fluid conversation	Participants' body language is lost during video meetings	Body language improves communication in video meetings	It is easy to access Video Conference meetings	I frequently experience audio/video/connectivity issues during Video Conferencing	Generally, I am delighted with the Video Conference platform's performance
1																									
2	1																								
3	0.67	1																							
4	0.38	0.66	1																						
5	0.36	0.55	0.77	1																					
6	0.42	0.53	0.60	0.68	1																				
7	0.35	0.61	0.70	0.55	0.81	1																			
8	0.35	0.70	0.78	0.71	0.70	0.88	1																		
9	-0.48	-0.30	-0.21	-0.23	-0.01	0.03	-0.14	1																	
10	-0.21	-0.20	-0.13	-0.19	0.02	0.12	0.03	0.57	1																
11	-0.26	0.00	0.17	0.08	-0.09	0.11	0.23	0.26	0.25	1															
12	-0.22	-0.24	-0.11	-0.15	-0.25	-0.12	-0.19	0.66	0.39	0.54	1														
13	0.22	0.43	0.33	0.29	0.22	0.32	0.48	0.09	0.21	0.18	0.12	1													
14	0.01	0.04	0.10	0.06	0.34	0.33	0.18	0.29	0.34	0.26	0.27	0.11	1												
15	-0.01	0.06	-0.01	0.19	0.30	0.22	0.10	0.48	0.31	0.41	0.51	0.12	0.54	1											
16	-0.27	-0.27	-0.27	-0.06	0.09	-0.16	-0.36	0.46	0.20	0.14	0.32	-0.24	0.35	0.49	1										
17	-0.05	0.04	-0.10	-0.22	0.02	0.26	0.11	0.15	0.48	0.18	-0.01	0.07	0.16	0.02	-0.08	1									
18	0.06	0.26	0.09	0.08	0.17	0.31	0.25	0.10	0.33	0.34	0.03	0.14	0.38	0.33	0.12	0.72	1								
19	0.13	0.29	0.29	0.37	0.20	0.26	0.36	0.22	-0.04	0.22	0.30	0.21	-0.09	0.16	-0.03	-0.02	-0.13	1							
20	0.25	0.45	0.49	0.60	0.57	0.67	0.79	0.00	0.13	0.28	-0.03	0.60	0.07	0.22	-0.30	0.24	0.35	0.25	1						
21	-0.14	-0.35	-0.49	-0.45	-0.26	-0.28	-0.51	0.44	0.30	0.25	0.56	-0.35	0.11	0.31	0.53	0.35	0.36	0.02	-0.33	1					
22	-0.01	-0.01	-0.15	-0.25	-0.10	-0.24	-0.33	0.32	-0.02	-0.13	0.26	0.24	0.02	0.07	0.33	-0.12	-0.23	0.28	-0.36	0.19	1				
23	0.05	0.19	0.24	0.50	0.39	0.42	0.44	0.14	0.11	0.38	0.16	0.35	0.03	0.49	0.03	0.11	0.21	0.31	0.59	0.03	-0.26	1			
24	0.28	0.58	0.67	0.59	0.42	0.64	0.79	-0.22	0.07	0.28	-0.07	0.51	-0.06	-0.08	-0.25	0.08	0.21	0.33	0.67	-0.34	-0.38	0.40	1		
25	-0.18	-0.10	0.16	0.02	-0.14	-0.09	-0.17	0.20	-0.32	0.33	0.39	-0.34	0.29	0.22	0.22	-0.29	-0.14	0.13	-0.38	0.16	0.14	-0.06	-0.27	1	
26	0.37	0.47	0.46	0.50	0.45	0.53	0.60	0.11	0.43	0.22	0.14	0.68	0.05	0.12	-0.12	0.34	0.40	0.21	0.75	-0.05	-0.16	0.50	0.70	-0.43	1