



# Handelshøyskolen BI

## GRA 19703 Master Thesis

Thesis Master of Science 100% - W

### Predefinert informasjon

<b>Startdato:</b>	16-01-2022 09:00	<b>Termin:</b>	202210
<b>Sluttdato:</b>	01-07-2022 12:00	<b>Vurderingsform:</b>	Norsk 6-trinns skala (A-F)
<b>Eksamensform:</b>	T		
<b>Flowkode:</b>	202210  10936  IN00  W  T		
<b>Intern sensor:</b>	(Anonymisert)		

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Inneholder besvarelsen  
konfidensielt  
materiale?: Nei

Kan besvarelsen  
offentliggjøres?: Ja

### Gruppe

Gruppenavn: (Anonymisert)  
Gruppenummer: 220  
Andre medlemmer i gruppen: Deltakeren har innlevert i en enkeltmannsgruppe

# The Relationship Between New Ways of Working and Motivational Climate: The Moderating Role of Digital Mindset

**Programme:**

Master of Science in Leadership and Organizational Psychology

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## Acknowledgements

First and foremost, I want to thank Anders Dysvik for saying yes to guiding me through this thesis, and for setting aside so much time to help me forward. Thank you for turning the mountain that was this thesis into a climbable rock through your constant encouragement and ‘can do’ attitude. Thank you for again and again pointing me in the right direction, and for providing me with the tools I needed to complete this thesis. Thank you for being a coach and allowing me to come to conclusions ‘on my own’. And most of all, thank you for giving me hope that regardless of how long it would take, this thesis would one day stand completed. Thanks to you it now does.

I also want to thank every leader who believed in my research project enough to distribute it to their employees and encourage them to participate. You helped me reach out to respondents and gather valuable data. And to every individual who took time out of their busy day to answer not one, but two questionnaires in relation to this project, thank you for your valuable responses.

Lastly, and more than anything, I want to thank my incredibly patient, loving, and self-sacrificing husband. Thank you for always believing in me and encouraging me to do my very best. Thank you for constantly assuring me that my best is good enough regardless of what it may look like. Thank you for being there through all the highs and lows, for pushing me to work when I needed it and for allowing me to rest when I could not. Thank you for being so self-sacrificing of your time, friendships, hobbies, and other activities to stay home and take care of our babies so I could work or ‘sleep myself smart’. Thank you for listening to my rants about theory and hypotheses (and everything in between) as I attempted to make sense of it all. Thank you for somehow managing to be my partner in writing this – even if that was by simply allowing me to talk through every obstacle and decision to be made (which often included late nights and large portions of not understanding a word due to the lack of context provided by me). You made me feel as though I had a sparring partner. Thank you for loving me, pushing me, and encouraging me to do the best I possibly could in this wild season of navigating thesis work whilst taking care of our babies. And finally, thank you for patiently continuing to love forth the best in me, and for never complaining while you put all your dreams aside to help me reach mine. I could not have done this without you.

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## **Abstract**

Many organizations now operate in more digitalized arenas using technology to facilitate a more flexible way of organizing work that better caters to the modern workforce. Referred to as ‘New Ways of Working (NWW)’, this way of organizing work involves greater flexibility in both timing and location of work using information and communication technology. Drawing on the achievement goal theory, the current study investigates the relationship between NWW and motivational climate and proposes the role of digital mindset as a moderator of the relationship. Data was gathered from 247 employees within the Norwegian workforce and show a positive relationship between NWW and mastery climate. However, results show no support for the moderator hypothesis, but a positive association between a digital fixed mindset and a performance climate is found. Practical implications of these findings and directions for future research are discussed.

**Keywords:** *New Ways of Working. NWW, NWoW, motivational climate, digital mindset*

## 1.0. Introduction

*By design or default?*

Organizations and managers constantly seek ways to increase the performance and effectiveness of employees, while keeping turnover at a minimum. This ensures competitiveness and helps gain advantage over other firms. According to research on motivational climate, it is possible to affect employees' performance (work quality and effort), well-being, and turnover intention by creating a motivational climate that accentuates learning and development (Černe et al., 2014; Nerstad et al., 2013, 2018b).

Based on traditional achievement goal theory (AGT), the motivational climate encompasses the situational aspect of achievement behavior; "How does the structure of the environment make it more or less likely that an individual will strive to achieve success?" (Nerstad et al., 2013, p. 2231). Two significant structures emerge: mastery and performance climates. A mastery climate is linked to a range of adaptive outcomes, and is therefore often the preferred climate, while performance climates promote more maladaptive outcomes. Specifically, mastery climates at work have been found to predict a range of employee outcomes including higher performance, lower turnover intentions, and increased well-being (Černe et al., 2014; Nerstad et al., 2013, 2018b).

With the recent leap into a fourth industrial revolution (Schwab, 2016; Centre for the New Economy and Society, 2018), such outcomes are paramount to sustain competitive advantage. In a rapidly changing environment driven by technological developments, organizations are dependent on employees' performance to succeed. Furthermore, turnover needs to be kept at a minimum to retain talent and experience within the firm and avoid both direct and indirect costs associated with replacements. According to Mercer's (2017) National Survey of Employer-Sponsored Health Plan, creating a culture [*climate*] that promotes health reduces turnover by 11 %. Additionally, their Global Talent Trends report found that one in two employees prefer to join institutions that protect health and wellbeing (as cited in WBCSD, 2022) Thus, promoting a mastery climate that relates to employee well-being is highly relevant.

Previous research shows how significant mastery climates at work are for both organizations and employees. In addition to work performance and turnover,

mastery climates have also been linked to knowledge sharing behavior (Nerstad et al., 2018b) and creativity (Černe et al., 2014) – both crucial aspects of an organization’s competitiveness. Studies have also shown that motivational climates may facilitate change in goal orientation over time (Nerstad et al., 2018b), giving organizations and managers a unique opportunity of influence through deliberate climate designs. Indeed, most research on motivational climate suggests the implementation of a mastery climate with its wide range of adaptive outcomes (e.g. Černe et al., 2014; Nerstad et al., 2013, 2018a, 2018b).

However, these studies do not consider the impact of the recent shift towards a more digital work-environment on the motivational climate. Consequently, there is a critical gap in literature when it comes to motivational climates and how they are perceived in the more digital setting known as ‘New Ways of Working’ (NWW).

As opposed to the ‘old’ manufacturing-based design (van Meel, 2011), NWW is a rising trend in today’s work environment (NWW) (Ruostela et al., 2015). NWW incorporates the use of information and communication technology (ICT) to allow workers greater flexibility in both where, when, and how they accomplish their work (Renard et al., 2021). This way of organizing work is proposed as “a set of novel work practices that are well suited to the modern knowledge-intensive environment” (Ruostela et al., 2015, p. 384). However, research on the concept of NWW is paradoxical and does not give a clear picture on whether these new methods are positive or negative in relation to organizational and employee outcomes. Thus, the establishment of a mastery climate may be critical to draw out the benefits of NWW.

As far as this writer is aware, no studies to date have considered the relationship between NWW and motivational climate. This thesis aims to add to research on motivational climates at work by examining how they are perceived in today’s work environment, now characterized by work practices that incorporate and depend on digital technology and flexibility (Renard et al., 2021; Schwab, 2016). Does the introduction of NWW, with its flexibility in timing and location of work and dependence on information and communication technology, facilitate mastery climates? Or does the introduction of NWW enhance a performance climate with more maladaptive behaviors that may hurt an organizations



competitiveness? What are the implications of NWW for managers who attempt to facilitate mastery climates?

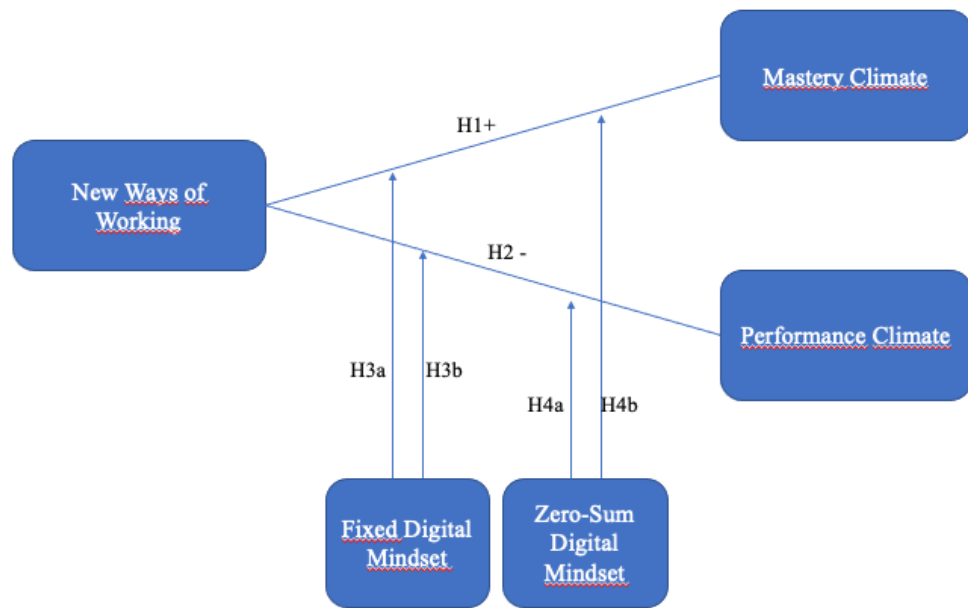
Furthermore, as NWW is largely dependent on the use of digital technology, the moderating role of digital mindset will be examined. In an environment characterized by change and the introduction of new technologies (e.g., organizations that utilize NWW), digital mindsets have been found to influence employee's withdrawal from or engagement in digital transformation initiatives (Solberg et al., 2020). Digital mindsets have two dimensions; a digital growth/fixed mindset refers to the malleability of technical ability, whereas expandable sum/zero-sum mindsets describe an individual's view of organizational resources as either limited or expandable.

In the aftermath of a global pandemic, where organizations all around the world have been forced to think differently about organizing work, it is highly important to consider how these new ways of working relate to the motivational climate at work. As far as this writer is aware, to date, no studies have considered this relationship. This thesis seeks to fill a gap in literature by looking at the relationship between NWW and motivational climate while examining the potential moderating role of digital mindset. In a new era of technology and flexibility in the world of work, these considerations are highly important and may prove essential for organizations and decisionmakers who have implemented, or desire to implement NWW in their organizations.

## **2.0 Conceptual Model**

The following model shows the predicted relationships between NWW and motivational climate based on theory and proposed hypotheses. NWW is hypothesized to be positively related to a perceived mastery climate, while NWW and a perceived performance climate is hypothesized to have a negative relationship. Furthermore, the model also depicts the anticipated moderating role of digital mindset. A fixed digital mindset weakens the relationship between NWW and mastery climate while strengthening the relationship between NWW and a performance climate. Lastly, a zero-sum mindset is thought to attenuate the relationship between NWW and mastery climate while strengthening the relationship between NWW and performance climate.

**Figure 2:** Relationship Between Focal Constructs



*Figure 2. Conceptual Model (own design)*

### 3.0 Theory and Hypothesis

#### 3.1. Achievement Goal Theory as a Framework for Motivational Climate

The different types of motivational climate mentioned above that will be discussed within this thesis are drawn from Traditional Achievement Goal Theory (AGT; Ames, 1992a, 1992b; Nicholls, 1984, 1989). As defined principally by Nicholls and Ames (Nerstad, 2012), AGT is a theoretical framework that both enhances understanding of and lays a firm foundation for motivational climate. In essence, AGT is a theory of motivation that explores the reasons behind *why* people work to achieve success (Nerstad, 2012), with an emphasis on both individual and situational factors (Ames, 1992b; Nicholls 1989). AGT explains that individuals are motivated by different types of goals when engaging in achievement behavior. These goals, in turn, become a framework for predicting how individuals approach and react in an achievement setting (Nerstad, 2012).

### ***3.2. Motivational Climate***

Motivational climate is a concept that encompasses the situational aspects of AGT (Nicholls 1984, 1989; Ames 1992a). However, as earlier definitions of motivational climate are largely based on research from sports- and educational settings, this thesis will rely on a definition that has been extended to include a work setting. According to Nerstad et al. (2013), “the perceived (psychological) motivational climate at work is identified as employees’ perceptions of the extant criteria of success and failure, which is emphasized through the policies, practices, and procedures of the work environment” (p. 2232). Essentially, it boils down to what individuals believe they have to do to achieve success in their respective work setting. Because it is based on perception, a motivational climate can differ among individuals within the same team as each may have different experiences and understandings of the criteria for success.

Following traditional AGT, there are two types of motivational climates known as mastery and performance climates (Ames, 1992a, 1992b). The two climates promote different types of values and seem to bring about quite contrasting behaviors.

#### ***3.2.1 Mastery Climate***

In a mastery climate the main focus is on mastery and learning, with values such as effort, sharing, and cooperation perceived as some of the most important (Ames, 1992b; Nerstad et al., 2013; Nerstad et al., 2018b). As far as comparisons go, in a mastery climate, the referent other is self (Nerstad et al., 2018b). Thus, social comparison becomes insignificant, and rather than being compared to others within (or outside) the work group, an individual’s current performance is compared to that of past performance (Nerstad et al., 2013). Success is thereby achieved when present performance is greater than past performance. In this way, a mastery climate accentuates self-development and competence (learning and mastery).

#### ***3.2.2. Performance Climate***

In a performance climate the main focus is implied by the name, *performance*, and the ones who are seen as successful are consequently the top performers (Nerstad et al., 2013). As opposed to a mastery climate where

cooperation is an important value, a performance climate is characterized by intra-team competition. The focus is more on demonstrating superiority and competence, as opposed to development and learning. In this type of climate, social comparison is greatly emphasized and gaining favorable normative comparisons is an important goal (Nerstad et al., 2013).

### *3.2.3. Organizational and Individual Outcomes of the Motivational Climate*

In regard to outcomes of the two motivational climates, a performance climate generally relates to more maladaptive outcomes and is consistent with “decreased motivation (e.g., low effort or persistence), use of ineffective strategies, more worry, perceiving stress, seeking easy tasks, or giving up when faced with difficulty” (Nerstad et al., 2013, p. 2233). A mastery climate is quite the contrary and is in many settings viewed as the desired climate (e.g., Nerstad et al., 2018b) as it relates to more adaptive outcomes. Mastery climates have been found to produce outcomes such as increased supervisor trust, knowledge sharing, intrinsic motivation, increased effort, positive attitudes, persistence through challenge, resilience, and well-being (Nerstad et al., 2018b; Ntoumanis & Biddle, 1999; Valentini & Rudisill, 2006). Therefore, understanding more about how mastery climates are developed is an important area of research for organizations and managers.

### *3.2.4. Development of the Motivational Climate*

Although there is much research highlighting the various outcomes of the two dimensions of motivational climate, and many researchers recommend that organizations implement a mastery climate (eg., Kopperud et al., 2020; Vandewalle et al., 2019), less is known about how they are created or facilitated in an organizational setting (DeShon & Gillespie, 2005).

In sports- and educational settings (where most of the current research is centered), it is assumed that teachers, coaches, and parents are critical to establishing the different types of motivational climate (Ames, 1992a, 1992b). This reasoning resonates well with logical thinking as these individuals are the authoritative figures who set the structures that form the environment. However, there is also burgeoning research examining the role of peers in the development of a motivational climate (Ntoumanis et al., 2006).

In a work setting, it is assumed that leaders hold a key role in the establishment of the motivational climate (Nerstad et al., 2018b). Still, there remains a lack of research in this area and there is no common conception regarding how a mastery climate is created (DeShon & Gillespie, 2005), or what specific measures to put in place to develop one. Furthermore, as the world is navigating a fourth industrial revolution (Schwab, 2016), organizations are increasingly operating in digital arenas. The modern workplace is not necessarily a physical building or space, but more so a digital community with a common base (e.g., the office) where individuals use their respective skills in collaboration with other colleagues to achieve the organization's goals. Hence, a large gap is formed in literature when it comes to motivational climates in a more digital setting, or as the now widely spread organizational design, NWW.

### ***3.3 NWW – What is it?***

NWW is a relatively new concept that first appeared in the Netherlands during the early 1990's (Kingma, 2019). Although there is still no universal definition of the term, most researchers define NWW as a bundle of organizational initiatives, rather than a single initiative (Renard et al., 2021). However, what the bundle includes and excludes is unclear. According to a literature review by Renard et al. (2021), three items are of particular importance: (1) the flexibility of hours, (2) the flexibility of location, and (3) the use of information and communication technology (ICT). Additionally, many studies highlight the physical design of the workplace as a key factor (see ten Brummelhuis et al., 2012; Ruostela et al., 2015; Kingma, 2019; Van Steenberghe et al., 2018). This thesis will adopt a definition by ten Brummelhuis et al., (2012) who define NWW as “a work design in which employees can control the timing and place of their work while being supported by electronic communication” (p. 114).

Workplaces that are designed to fit NWW differ greatly from the traditional cell structured offices that are personalized to the individual (Kingma, 2019). As NWW constitutes a need for greater connectivity among workers, office spaces usually have an open layout that facilitates cooperation, creativity, and teamwork. Various rooms and areas are designed to fit different types of

activities, including but not limited to physical and digital meetings, brainstorming, individual work, and conference calls (Kingma, 2019). In essence, NWW is a relatively new approach to organizing work that utilizes ICT to allow for greater flexibility when it comes to both the timing and location of work.

Since the term was first introduced, it became an increasingly popular trend in the world of Dutch knowledge workers, and several consultancy firms were tasked with transforming organizations from a more traditional design to NWW (Kingma, 2019). Consequently, most studies involving research on NWW are of Dutch origin. However, the recent COVID-19 pandemic has pushed organizations all around the world to implement some (or all) of the components of NWW, signaling a new era of work and calling for more research on the matter. This thesis aims to aid in filling this gap by exploring how NWW relates to motivational climate.

### *3.3.1. NWW Outcomes*

Several researchers have attempted to study the impact of implementing NWW on both employees and organizations (Ruostela et al., 2015; Van Steenbergen et al., 2019; Renard et al., 2021). However, findings are inconclusive at best, highlighting several paradoxes and making it difficult to conclude whether NWW is a beneficial shift for both employees and organizations.

### *3.3.2. Organizational outcomes*

Traditionally, there seem to be many organizational benefits of NWW. According to Sánchez et al., (2007) teleworking and workplace flexibility are positively related to an organization's performance. There are also cost savings associated with a transition towards NWW, due partly to smaller and more efficient office spaces (Ruostela et al., 2015; Kingma 2019). Ruostela et al., (2015) also highlight the fact that NWW reduces commuting time, thereby reducing CO<sub>2</sub> emissions and causing a smaller carbon footprint. In this way, organizations become "greener" and more sustainable, giving them a more environmentally friendly image. Furthermore, Arbeidslivsundersøkelsen ALX by Kantar and HR Norge (2021) interestingly shows that Norwegian employees who transitioned to NWW during the pandemic worked more hours during the week with the same amount of pay. This naturally results in greater productivity for organizations who then experience more output from their employees with the

same amount of input as before. In sum, it can seem that NWW is a lucrative transition for organizations, but what about the employees?

### *3.3.3. Employee outcomes*

In a study examining employee outcomes after implementing NWW, researchers found that NWW increased work engagement through clear and effective communication (ten Brummelhuis et al., 2012). However, the same study also showed a positive relationship between NWW and exhaustion due to increased interruptions. Similarly, while many studies show that NWW have positive employee outcomes, they also show a range of negative outcomes. Thus, paradoxes seem to be the essence of research on NWW and employee outcomes.

Positive outcomes include increased autonomy through greater flexibility (Demerouti et al., 2014; Van Steenbergen et al., 2018), increased work-related flow (Peters et al., 2014), work engagement (Gerards et al., 2018; ten Brummelhuis et al., 2012), organizational commitment (Nijp et al., 2016), connectivity, quality of communication (ten Brummelhuis et al., 2012), family and organizational support (Fedakova & Istonova, 2017), and a decrease in mental demands (Van Steenbergen et al., 2018). The list of negative outcomes shows blurred work-family lines (Fedakova & Istonova, 2017), less collegial support, less collegial commitment, less supportive leadership (Peters et al., 2014), and a decrease in knowledge sharing among employees (Blok et al., 2012).

Although there are few conclusions as to how NWW affect employees, these findings make it clear that a transition towards NWW includes a rather large change in the work environment. As such, the perceived motivational climate (which hinges upon the work environment) is bound to be affected as well.

### *3.4. Changes in perceived mastery climate*

Among other things, a mastery climate predicts job engagement and innovative work behavior (Nerstad et al., 2013; Černe et al., 2014). In the same way, ten Brummelhuis et al., (2012) concludes that NWW has the potential to foster engagement. Another exploratory study on the effects of NWW on innovative work behavior shows that NWW increases innovation (Moll & de Lede, 2017). However, the same study found that excessive teleworking leads to negative effects on innovation through isolation and less face-to-face contact with

colleagues (Moll & de Lede, 2017). Both Job engagement and innovation are ideal qualities in an organization. Engagement produces workers who are more dedicated and enthusiastic about their work (Nerstad et al., 2013), and innovative work behavior is increasingly important to organizational success in a rapidly changing society (Moll and de Lede, 2017).

Another important core aspect of mastery climates is cooperation (Nerstad, 2013). Instead of people working individually to achieve success, in mastery climates there is “an emphasis on resolving issues for mutual benefit” (Nerstad et al., 2013, p. 2233). Adopting a rational system perspective, an organization will invest in developments that are strategic and important when it comes to reaching the organizations goals with the greatest amount of efficiency (Scott & Davis, 2016). As such, NWW office spaces that are designed with an open layout and various areas and rooms for teamwork and collaboration do not only facilitate cooperation. These spaces also indicate to employees that cooperation is an important success factor in the organization – as in mastery climates.

According to previous studies, NWW office designs, in combination with a wider use of ICT, also increase communication quality (ten Brummelhuis et al., 2012). Communication is central to successfully work with and learn from other employees. However, although NWW may increase communication quality, the possible and anticipated effect of increased knowledge sharing has not been found. On the contrary, Blok et al., (2012) found that knowledge sharing decreased after implementing NWW. This finding aligns poorly with a mastery climate that is positively related to knowledge sharing through trust (Nerstad et al., 2018b). However, knowledge sharing is a phenomenon which likely depends on several factors and mechanisms – some of which may counteract the effects of others (Nerstad et al., 2018b). Therefore, although office design and ICT may be practices that increase knowledge sharing by providing better communication and access to colleagues, excessive teleworking with little or no direct contact with other colleagues may counteract this positive effect (Blok et al., 2012). Still, it seems that NWW in general facilitates and promotes several of the characteristics that define mastery climates. Therefore, I predict that:

*H1: There is a positive relationship between NWW and mastery climates.*



### *3.5. Changes in perceived performance climate*

Contrary to a mastery climate, a performance climate is competitive and more focused on gaining favorable normative comparisons over other colleagues than it is on working together as a team (Nerstad, 2013). As mentioned earlier, performance climates have been found to lead to a range of maladaptive behaviors: “decreased motivation (e.g., low effort or persistence), use of ineffective strategies, more worry, perceiving stress, seeking easy tasks, or giving up when faced with difficulty” (Nerstad et al., 2013, p. 2233).

When it comes to motivation, NWW increases work engagement (ten Brummelhuis, 2012), which is often defined as a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption” (Demerouti et al., 2010, p. 210). Intrinsic motivation and work engagement are two concepts that are very closely related. In his book on the subject, Thomas (2009) explains intrinsic motivation as one of the core drivers of engagement. With an increase in engagement, it could therefore be assumed that there is a similar increase in intrinsic motivation – the opposite of what is seen in a performance climate (Buch et al., 2015).

Studies have also found performance climates to increase worry and stress (Ntoumanis & Biddle, 1999). On the other hand, the introduction of NWW shows a decrease in mental demands and workload over time, seemingly making work less stressful and demanding (Van Steenbergen et al., 2018). The flexibility to choose when and where to work further allows workers to avoid stress factors at the office (e.g. noise, interruptions, distractions) and complete various tasks when and where they work best. The increased flexibility of NWW additionally reduces stress relating to commuting and punctuality (Ruostela et al., 2015).

Lastly, NWW is known to provide employees with a sense of autonomy, due particularly to the increased flexibility regarding when and where to work (Demerouti et al., 2014). Contrastingly, Buch et al. (2015) suggests that performance climates have a more controlling aspect that likely reduces the sense of autonomy. In their reasoning, the focus on external rewards and recognition (both characteristic of a performance climate) function as more controlling than if participation were encouraged for the sake of the activity itself (Buch et al., 2015). Therefore, the sense of autonomy is reduced.

In sum, NWW and performance climates seem to contradict one another when it comes to the various outcomes observed. Therefore, I predict that  
*H2: There is a negative relationship between NWW and performance climates.*

### ***3.6. The Moderating Role of Digital Mindset***

Digital mindset plays a significant role in whether employees engage in or withdraw from an organization's digital transformation initiatives (Solberg et al., 2020). Due to the heavy dependence on ICT, a transition to NWW is likely to trigger several digital transformation initiatives (e.g., Kingma, 2019; Ruostela et al., 2015). Formerly manual systems need to be online; information needs to be accessed from anywhere anytime, colleagues and leaders need to have new and various ways of communicating, and the implementation of new systems, apps, and other technological innovations are crucial for success. Therefore, a person's digital mindset is important when it comes to how employees relate to and engage with NWW.

A digital mindset is defined as an individual's beliefs regarding personal and situational resources in a technological change process (Solberg et al., 2020), or in other words: what employees believe about technological change. There are several combinations of digital mindsets proposed by Solberg and colleagues (2020) who developed a framework for understanding the various combinations in relation to digital transformation. In their research, they use the proposed framework to predict both perceptions of, and responses to, digital transformation. Additionally, suggestions on how the various mindsets should be approached by management is discussed (see Solberg et al., 2020).

#### ***3.6.1. Fixed Versus Growth Mindsets***

When it comes to personal resources, research shows that there are two types of contrasting mindsets that surface, namely fixed and growth mindsets (Dweck, 2008). Individuals who primarily have a fixed mindset believe that their abilities and talents (personal resources) are innate and will therefore tend to give up more easily in the face of challenge, consequently achieving less (Dweck, 2008, 2016). As such, a person with a digital fixed mindset will likely view a transition to NWW (with the need to learn and adapt to the use of new technologies) as either 'positive' or 'negative' depending on their technological abilities. However, even employees who consider themselves to have high

technological abilities, will likely face challenges at some point in the process and may consequently give up, draw back or generally disengage as is the pattern of individuals who carry a fixed mindset (Dweck, 2008, 2016; Solberg et al., 2020).

On the other hand, people with a growth mindset tend to achieve more as they see their abilities and talents as something to be developed through effort, hard work, and learning (Dweck, 2016). A person holding a digital growth mindset is then likely to view a technologically driven change process, such as NWW, entirely different. Instead of shying back in the face of challenge, employees with digital growth mindsets may on the contrary see challenge as opportunities to learn and develop their abilities and thus work harder (Solberg et al., 2020).

### *3.6.2. Expandable Sum Versus Zero-Sum Mindset*

The second dimension of a digital mindset relates to how individuals view the situational resources at their disposal and is derived from game theory (von Neumann & Morgenstern, 1944). Resources are either seen as expandable sum or zero-sum (Solberg et al., 2020). Viewing resources as expandable indicates that there is enough to go around, and one person's gain does not place limits on another person's opportunities. Thus, there is cooperation and collaboration instead of competition. However, taking a zero-sum view of resources indicates that resources are fixed or limited. Consequently, one person's gain negatively affects another, leading to a more competitive approach.

### *3.6.3. Digital Mindset as a Moderator*

In light of theory, the various digital mindsets seem to hold many similarities to the two dimensions within motivational climate: fixed/zero-sum (relating to a performance climate) and growth/expandable sum (relating to a mastery climate) (Solberg et al., 2019). This link between motivational climate and mindset has been suggested by previous research in a sports setting (Ommundsen, 2001). Furthermore, a study by Kloven and Carlsen (2020) shows the existence of a relationship between a zero-sum digital mindset and a performance climate in a work setting. However, no relationship was found between a growth mindset and a mastery climate. Thus, further research is needed to make any conclusions.

This thesis suggests that a person's digital mindset is likely to influence his/her perception of the motivational climate at work as perceived in relation to NWW. With respect to the relationship between NWW and a motivational climate, the premise is that a fixed digital mindset and a zero-sum view of organizational resources will enhance the perception of a performance climate while attenuating the relationship between NWW and a mastery climate. The assumption is further that low scores on fixed/zero-sum mindsets indicate growth and expandable sum mindsets that would have the opposite effect on motivational climate (i.e., enhance perceptions of mastery climates while weakening the relationship between NWW and a performance climate).

In line with research on digital mindset, a growth mindset with an expandable sum view of organizational resources should lead employees to embrace and actively engage with NWW in an organization (Solberg et al., 2020). Although there are challenges and downsides associated with NWW, people with a growth mindset are more likely to persist and gain confidence in the face of such challenges and consider them possibilities to learn, grow and increase their competence (Solberg et al., 2020), thereby perceiving a more mastery-oriented climate. Additionally, individuals with an expandable view of organizational resources believe that there are better outcomes by collaborating and utilizing cooperative strategies as they believe resources can be increased (Solberg et al., 2020). Therefore, they do not see the need to compete, as they believe it is possible for everyone to succeed together and gain more favorable outcomes by learning from one another (Solberg et al., 2020). As such, they are more prone to offer help and involve themselves in knowledge sharing behavior that is highly beneficial for the organization (Nerstad et al., 2018b).

On the other hand, people with a fixed mindset will likely shy away from challenges in the fear of looking incompetent and failing (Solberg et al., 2020). Because they believe their abilities to be fixed, they will likely give up more easily if they fail to succeed right away, and rather seek situations where they can present their competence and gain favorable normative comparisons as in a performance climate (Solberg et al., 2020). Furthermore, people with a zero-sum view of organizational resources are likely to perceive a competitive climate and shy away from collaborative behavior due to their view of organizational resources as limited (Solberg et al., 2019, 2020).

Thus, a growth/expandable sum mindset will likely enhance the relationship between NWW and a mastery climate, while a fixed/zero-sum mindset attenuates the relationship. Contrarily, a growth/expandable sum mindset will likely weaken perceptions of a performance climate, while strengthening the perceptions of a mastery climate. However, following Solberg et al. (2020), this thesis assumes that low scores on fixed/zero-sum mindsets indicate growth/expandable sum mindsets respectively. Therefore, this thesis predicts that:

*H3a: The relationship between NWW and mastery climate will be moderated by digital mindset, such that those with a fixed mindset will perceive a less positive relationship between NWW and mastery climate; and (b) a more negative relationship between NWW and performance climate.*

*H4a: The relationship between NWW and performance climate will be moderated by digital mindset, such that those with a zero-sum mindset will perceive a more negative relationship between NWW and performance climate; and (b) a less positive relationship between NWW and mastery climate.*

## **4.0 Method**

### ***4.1 Sample and Procedures***

In this thesis, data was collected from 316 workers representing a range of different sectors and organizations. Mainly due to time constraints, a convenience sampling method was used, and participants were invited to join in through private networks, LinkedIn, Facebook, Instagram and other social media accounts. Additionally, six different organizations were contacted and asked to send the survey out to their employees on the behalf of this writer. These organizations represented a variety of sectors including consultancy, finance, insurance, IT, real estate, and retail (car dealership). Each organization agreed to send it to a division/unit within their company that they felt most relevant. Participants were then informed of the objectives of the research and assured of their anonymity as well as the project's compliance with the ethical guidelines for data protection through approval from Norwegian center for research data (NSD; see Appendix I).

Participants were asked to contribute by completing self-assessment questionnaires in two waves with an interval of approximately 3 weeks. Data was collected using UiO Nettskjema, a web-based tool for designing and conducting surveys with a high degree of security. Of the 316 participants, 247 participants completed both surveys, giving a response rate of 78.2 % in the second wave. Participants were only included if they had provided data for both waves. The first survey was made available through link via different social media channels, while the second part of the survey was sent directly to participants email addresses. A maximum of three reminders were sent to each recipient with time intervals of three days.

In the first wave, the independent variables (NWW and digital mindset) were measured along with the control variables. In the second wave, the dependent variable (motivational climate) was measured on its own. Data was collected in two waves to alleviate measurement error due to common method variance (Brannick et al., 2010). Common method variance is one of the main issues when using self-report schemas as respondents can get fatigued with too many questions and respond without properly reading the items (Podsakoff & Organ, 1986). Hence, respondents who participated in the project were asked to complete two separate questionnaires.

Participants included in the study are all part of the Norwegian workforce and range from 22-60 years of age, with approximately 53 % of respondents between the ages of 22-38. 47 % of respondents are men and 53 % are women. In terms of educational level, 26 % report having primary education/high school diploma/associate degree or equivalent, 36 % have 1-4 years of higher education, and 38 % say they have at least 5 years of higher education. Furthermore, approximately 74 % do not have any managerial responsibilities.

#### ***4.2 Measures***

As suggested by Kahneman (2011), both questionnaires were distributed in Norwegian as the sample in this study consisted of workers in organizations based in Norway. This distinction meant that some of the measures that did not have validated Norwegian translations had to be translated as part of this study. Following Brislin's (1970) research and recommendations, translation back-translation method was used to maintain the highest degree of validity through

translations. Although this method has received some recent critique (e.g., Behr, 2017), it is still one of the most recommended assessment methods and is viewed as a sufficient translation method for the purposes of this research.

Except for the control variables, each measure within this study was rated on a 5-point Likert scale ranging from strongly disagree to strongly agree. When variables were measured by multiple items, scale means were calculated and used in all analyses.

#### *4.2.1. Motivational climate*

To measure the perceived motivational climate, the measures developed by Nerstad et al.'s (2013) were used. These measures were specifically developed with regard to a work environment, and the original items have been validated both in Norwegian and English (Nerstad et al., 2013). Items measuring mastery climates included six statements such as: "In my department/work group, each individual's learning and development is emphasized", and "In my department/work group, cooperation and mutual exchange of knowledge are encouraged". Performance climates were measured by eight items with statements such as "In my department/work group, there exists a competitive rivalry among the employees", and "In my department/work group, it is important to achieve better than others".

These measures give an indication of what employees perceive as the existent criteria for achievement and success within their organization or specific department. The Cronbach's alpha ( $\alpha$ ) coefficients for mastery and performance climates both showed satisfactory reliability with 0.77 and 0.85 respectively.

#### *4.2.2. New Ways of Working*

To measure NWW, a scale developed by ten Brummehuis and colleagues (2011) was used. NWW is a bundle concept that encapsulates various independent factors and the unique effect they have in combination with one another. As such, the measure used to assess NWW consisted of 15 items divided into five facets: (1) time- and location- independent work (e.g. "I am able to determine where I work"), (2) management of output (e.g. "I am able to determine the way I work"), (3), access to organizational knowledge (e.g. "I am able to reach managers quickly"), (4) flexibility in working relations (e.g. "I have the ability to work more or fewer hours"), and (5) freely accessible open workplaces (e.g. "the building is

arranged so that colleagues are easily accessible”). The Cronbach’s alpha coefficient for NWW was 0.86.

#### *4.2.3. Digital Mindset*

Digital mindset measures are twofold and include items that relate to how individuals view technological ability (fixed/growth mindset), and how they see organizational resources (zero-sum/expandable sum). This thesis only explicitly measured the fixed and zero-sum aspects of digital mindset. The assumption could be made that low scores on these scales indicate growth and expandable sum mindset, respectively (Solberg et al., 2020).

When measuring fixed mindset, four items were used. These items stem from the original items developed by Dweck et al. (1995) to measure implicit theory of intelligence and have been adapted by Wong et al., (2022) to suit an organizational setting. Measures included items such as “A person’s level of technological savviness is something basic about them, and there isn’t much that can be done to change it”. The Cronbach’s alpha coefficient was a satisfying 0.74.

Employees’ view of organizational resources was measured by six items developed by Wong et al., (2022). Sample items include “New technologies reduce the opportunities for current employees to succeed in their current jobs” and “For every new technology, there are people losing their jobs». The Cronbach’s alpha coefficient for these items showed a lower reliability of 0.71 but slightly higher than the Cronbach’s alpha coefficient in Wong et al.’s study (2022), and above the widely used cut-off value of 0.70 for internal consistency (Pallant, 2016).

#### *4.2.4. Control Variables*

To strengthen the internal validity of the study and control for potential differences in socio-demographics, four variables were added: age, gender, educational level, and managerial responsibilities. Both age and gender were included as control variables following previous research on motivational climate that shows significant differences in how male and female respondents perceive motivational climate (Abrahamsen et al., 2008; Nerstad et al., 2018b). Age was measured in clusters and coded 1-7 in ascending order (e.g. 1= “under 22” and 7= “over 60”). Gender was coded 0-1 (“female” = 0, “male” = 1). Furthermore, educational level was controlled for to see if there were any significant differences



that might be reflected by the amount of education respondents had. Education was measured in three clusters, coded 1-3, where respondents were asked about their highest level of completed education (1 = “middle school, high school, associate degree or equivalent”, 2 = “1-4 years of higher education”, 3 = “5 or more years of higher education”). Lastly, managerial responsibilities were controlled for as it was likely that some respondents had supervisory roles. Previous research indicates that leaders are the most significant in the establishment of the perceived motivational climate at work (Nerstad et al., 2013).

## 5.0 Statistical Analyses

To test the hypotheses in this study, various analyses were conducted in SPSS 28. As a first step, a descriptive analysis was conducted on all variables to get an overview of the dataset with means and standard deviations as displayed in Table 1. Because only respondents who completed both waves of measurement were included in the study, respondents lacking data from the second wave were manually eliminated from the dataset before any analyses were conducted. Furthermore, as all items within each questionnaire were set as mandatory, there were no other missing variables to deal with. Thus, each item held the same number of responses (N=247).

Once the descriptive part of the analyses was conducted, the next step was to look for correlations between the variables to determine whether there existed any significant relationships. As suggested by Pallant (2016), a Pearson correlation was used as the variables were considered normally distributed and scatterplots indicated linear relationships without showing signs of heteroscedasticity. Heteroscedasticity is a problem in linear modelling because it is a case where standard deviations of the predicted variable are not constant over different measures of the independent variable (Pallant, 2016). Another issue with bivariate correlation is multicollinearity. Multicollinearity occurs when two or more of the independent variables are correlated (Meyers et al., 2006). However, the highest correlation between the independent variables in this dataset was 0.416, indicating that multicollinearity is not an issue.

A reliability analysis was also conducted to check the internal consistency of the five measures: mastery climate, performance climate, NWW, fixed- and

zero-sum mindset. The Cronbach alpha coefficients were examined and found to be satisfactory and above 0.7 as suggested by Pallant, (2016).

### ***5.1. Hypothesis Testing***

To test Hypotheses 1-4, a hierarchical ordinary least squares (OLS) regression analysis was conducted. In preparing the data for a test of moderation (Hypotheses 3-4), the hypothesized moderation variables were multiplied by each other to show their combined effect on the dependent variables through the regression analysis. The procedure was repeated twice, once with mastery climate as the dependent variable, and then with performance climate regressed on the independent-, control-, and interaction variables (i.e., NWW, fixed mindset, zero-sum mindset, age, gender, education, managerial role,  $NWW \times$  fixed mindset, and  $NWW \times$  zero-sum mindset). In the hierarchical regression, data was entered in three steps. First, the control variables were entered. Second, the centered scores for NWW, fixed-, and zero-sum mindset were added. Third, the interaction variables ( $NWW \times$  fixed mindset, and  $NWW \times$  zero-sum mindset) were entered.

## **6.0 Results**

### ***6.1. Descriptive Analysis, Correlations and Cronbach's Alpha***

Table 1 shows a complete overview of the descriptive analysis with variable means and standard deviations. Standard deviations are all quite similar. However, the mean value for mastery climate is quite high (4.07) and differs from the other measures. In this case, a high central tendency indicates a majority of more mastery-oriented climates since the standard deviation is relatively small (0.57).

Correlations and Cronbach's alphas are also presented in table 1. Correlations can be indicators of issues with multicollinearity (Myers et al., 2006). However, the highest correlation between the variables in this dataset is 0.416, well below 0.7, a rule of thumb indicator of multicollinearity issues (Pallant, 2016; Myers et al., 2006). The Cronbach's alpha coefficients are all above 0.7, a measure of acceptable internal validity (pallant, 2016). The highest alpha scores were those representing NWW (0.86) and performance climate (0.85), which showed very good internal consistency. Mastery climate and fixed mindset

showed slightly lower values ( $mc = 0.77$ ,  $fm = 0.74$ ), yet still good acceptability. Lastly, the Cronbach's alpha coefficient for zero-sum mindset was just above the limit at 0.71. However, as a Cronbach's alpha of as low as 0.6 can be deemed acceptable when measures have less than 10 items (Pallant, 2016), this is considered a good internal validity for a measure containing 6 items.

Furthermore, table 1 indicates a positive and significant relationship between NWW and mastery climate (0.318,  $p < 0.01$ ), as hypothesized. The correlation between NWW and performance climate is negative as expected, but not statistically significant with a 95 % confidence interval. Correlations between a zero-sum mindset, mastery climate and NWW are negative and significant, while the correlation between a fixed mindset and performance climate are positive and significant. However, these bivariate correlations only show suggested relationships within the dataset, and further analyses need to be conducted to answer the hypotheses in this study.

Table 1  
Descriptive Statistics and Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Age	3.68	1.66	-								
2. Gender	0.47	0.50	.111								
3. Education	2.13	0.79	.018	-.117	-						
4. Managerial role	0.26	0.44	.204**	.124	-.037	-					
5. Mastery Climate	4.07	0.57	.085	-.003	.062	.208**	(0.77)				
6. Performance Climate	2.21	0.73	-.015	.217**	-.138*	.179**	-.115	(0.85)			
7. NWW	3.67	0.71	.116	.129*	.250**	.244**	.318**	-.046	(0.86)		
8. Fixed mindset	2.45	0.53	-.144*	.046	-.194**	-.077	-.040	.174**	-.116	(.74)	
9. Zero-sum mindset	2.41	0.44	-.100	-.117	-.282**	-.031	-.155*	.088	-.416**	.290**	(.71)

Note. Sample size was 247 for all variables. Cronbach's alpha is shown in parentheses on the diagonal. Age is measured in clusters (1 = "under 22", 2 = 22-29, 3 = 30-37, 4 = 38-45, 5 = 46-53, 6 = 54-60, 7 = "over 60"). Gender: 0 = female, 1 = male. Education: 1 = middle school, high school, associate degree or equivalent, 2 = 1-4 years of higher education, 3 = 5 or more years of higher education. Managerial role: 0 = no, 1 = yes.

\* p < 0.05. \*\* p < 0.01.

	Step 1	Step 2	Step 3
Age	.05	.03	.03
Gender	-.03	-.07	-.08
Education	.07	-.02	-.03
Managerial role	.21**	.14*	.14*
NWW		.27**	.28**
Fixed Mindset (FM)		.02	.01
Zero-sum Mindset (ZS)		-.05	-.08
NWW × FM			-.03
NWW × ZS			-.10
$\Delta R^2$ for step	.05	.08	.01
Model F	3.22*	4.90**	4.17**
Model adjusted $R^2$	.04	.10	.10

*Note.* n = 247. Standardized regression coefficients are reported. Age is measured in clusters (1 = “under 22”, 2 = 22-29, 3 = 30-37, 4 = 38-45, 5 = 46-53, 6 = 54-60, 7 = “over 60”). Gender: 0 = female, 1 = male. Education: 1 = middle school, high school, associate degree or equivalent, 2 = 1-4 years of higher education, 3 = 5 or more years of higher education. Managerial role: 0 = no, 1 = yes.  
\* p < 0.05. \*\* p < 0.01.

## 6.2. Hierarchical Regression

Hierarchical OLS regression was conducted to test Hypothesis 1-4. Table 2 displays the results of the hierarchical OLS regression analysis regressed on mastery climate. The beta weight for NWW was statistically significant ( $p < 0.01$ ) and positive, supporting Hypothesis 1. The other independent variables have no significant relationship with mastery climate. As such, adding the independent variables in step 2, caused  $\Delta R^2$  to increase by 0.08, explaining an additional 8 % of the variance in mastery climate over and above that of the control variables. Adjusted for the number of independent variables added, the  $R^2$  is increased by 6 % giving total of 10 % of the variance explained by this model (adjusted  $R^2$ ). This provides a poor model for mastery climate, but the significant finding is that NWW relates to mastery climate in a positive way as predicted by Hypothesis 1.

In step three, where the interactive variables are entered, no new significant relationships are found. Thus, the moderation hypotheses, 3a and 4b are not supported.

Table 3 shows the variables regressed on performance climate. As previous studies indicate (Abrahamsen et al., 2008; Nerstad et al., 2013, 2018b), both gender and managerial role were significantly related to performance climate. Interestingly, fixed mindset was also statistically significant ( $p < 0.05$ ), and positive. However, no significant relationship was found between NWW and performance climate. Thus, Hypothesis 2 was not supported. Adding the interaction variables in step three showed no signs of moderation and provided no new significant relationships. Consequently, Hypothesis 3b and 4a were not supported and neither fixed mindset nor zero-sum mindset are moderators of a performance climate.

	Step 1	Step 1	Step 2
Age	-.07	-.04	-.04
Gender	.19**	.20**	.19**
Education	-.11	-.05	-.06
Managerial role	.10**	.19**	.18**
NWW		-.07	-.07
Fixed Mindset (FM)		.15*	.14*
Zero-sum Mindset (ZS)		.03	.00
NWW × FM			-.08
NWW × ZS			-.04
$\Delta R^2$ for step	.09	.03	.01
Model F	5.76**	4.48	3.81
Model adjusted $R^2$	.07	.09	.09

*Note.*  $n = 247$ . Standardized regression coefficients are reported. Age is measured in clusters (1 = “under 22”, 2 = 22-29, 3 = 30-37, 4 = 38-45, 5 = 46-53, 6 = 54-60, 7 = “over 60”). Gender: 0 = female, 1 = male. Education: 1 = middle school, high school, associate degree or equivalent, 2 = 1-4 years of higher education, 3 = 5 or more years of higher education. Managerial role: 0 = no, 1 = yes.  
\*  $p < 0.05$ . \*\*  $p < 0.01$ .

## 7.0 Discussion

This thesis sought to address the gap in literature regarding motivational climate in a more up-to-date and digital work environment by looking at the relationship between NWW and mastery and performance climates. Moreover,

fixed- and zero-sum digital mindsets were examined as potential moderators of the relationship.

The analyses indicate that while NWW is positively related to a mastery climate as hypothesized, no significant relationship is found between NWW and a perceived performance climate. Furthermore, this study found no support for the moderation hypotheses. However, with participants from a wide variety of sectors and organizations, the dataset contains much *noise*. Finding robust patterns despite this noise, signifies strong relations and serves as a significant contribution to the field of both NWW and motivational climate.

The positive relationship between NWW and mastery climate indicates that those who perceived a more mastery-oriented climate, also scored higher on the measures of NWW. Thus, employees who have greater temporal and spatial flexibility at work (i.e. control over when and where they work), and can choose how to accomplish their work (control/management of output), seem to perceive a motivational climate where cooperation, learning and growth are valued. This finding could be a result of the relatively high degree of autonomy related to both NWW and mastery climates. Previous research on motivational climate highlights the positive association between mastery climates and autonomy (Ntoumanis & Biddle, 1999). This link is also seen in research on NWW (Demerouti et al., 2014; Kotera & Vione, 2020). Moreover, the establishment of a positive relation between NWW and mastery climate also aligns well with research describing cooperativeness as a key characteristic of a mastery climate (Nerstad et al., 2013) as cooperation is another important aspect of NWW.

The lack of significant relationship between NWW and a performance climate deserves further discussion. One explanation for the lack of significance, is that participants in this sample generally perceived very high mastery-oriented climates (4.07 on a 1-5 scale). This finding is not surprising as previous research on motivational climates in Norwegian organizations shows similar tendencies (e.g., Nerstad et al., 2013; Stangeland & Thoresen, 2016). However, the two climates are negatively correlated and produce quite contrary outcomes. As such, the overweight of individuals who perceived higher mastery-oriented climates may interfere with, and weaken, the relationship between NWW and a performance climate, resulting in a lack of significance. This result is in line with

previous research suggesting that a high mastery climate moderates the impact of a performance climate (Ommundsen & Roberts, 1999).

Moreover, mastery and performance climates are assumed to be orthogonal concepts (Ames, 1992b). Following this line of theory, it is possible for an individual to perceive both climates simultaneously. It could be that the relationship between NWW and a perceived performance climate is significant only when combined with a low perceived mastery climate. This reasoning would align well with research showing the opposite: a statistically significant relationship between mastery climates and intrinsic motivation only when conditioned with a low perceived performance climate (Buch et al., 2015). Future studies among samples who perceive higher performance-oriented climates may show whether there is a significant relationship between NWW and performance climates.

This lack of significant relationship may also be partly due to paradoxes in research on NWW. Whether NWW provide mainly beneficial or adverse outcomes varies within different studies (Kotera & Vione, 2020). Although there are some expected outcomes, there are several contradictory findings. For instance, though an increase in autonomy is regarded as a core beneficial outcome of NWW (Gajendran & Harrison, 2007), Van Steenbergen and colleagues (2018) found a decrease in autonomy in a transition to NWW. This decrease was related to the transition being mandatory “because it [a mandatory transition] by definition reduces employees’ freedom” (p. 755).

It could be that some participants in this study had similar experiences of decreased autonomy. Due to the timing of data collection (which was conducted in the wake of a global pandemic), for many, the most recent experience with NWW is likely to be from organizations who have forced the implementation of NWW on their employees because of government restrictions regarding physical gatherings. As such, people who score high on the measures of NWW may simultaneously experience less autonomy because they have been unable to choose to work at the office in the recent past. This issue could then compete with, and counter, the beneficial outcomes of those who experience the expected increase in autonomy, and consequently provide results that are paradoxical. However, without further research that considers participants autonomy, no such conclusions can be made.



This study also tested for digital mindset as a moderator of the relationship between NWW and motivational climates. However, when adding the moderator variables to the regression analyses, no significant relationships were found. Still, there could be several explanations for this.

Firstly, measures for both digital fixed and zero-sum mindsets have a positive skew, with outliers to the right (i.e., main weight of responses are lower than the means at 2.45 for fixed, and 2.41 zero-sum mindsets). This skewness may have affected the regression analyses and could be a reason for the lack of significant relationships. Furthermore, because respondents have relatively low fixed and zero-sum mindsets, according to Solberg et al., (2020) this indicates the presence of more growth and expandable sum mindsets. Following their research, the assumption is that a reversal of the scores on fixed and zero-sum mindsets indicates high growth and expandable sum mindsets respectively. However, since specific measures for these have not yet been developed and psychometrically validated, growth and expandable sum digital mindsets were not specifically measured in this study. It is possible that, had these been measured explicitly, significant relationships would have been found. Still, the measures for digital mindsets have been used in previous studies (Solberg et al., 2020) and serve as appropriate measures for the purposes of this study.

Secondly, similar to an individual's goal orientation, mindsets are personal characteristics that are considered relatively stable over time (Dweck, 2012; Nerstad, 2013). On the other hand, motivational climates are considered highly malleable, and can vary in both strength and scope. As such, even though an organization has a mastery-oriented climate, people with a performance goal orientation may still perceive a more performance-oriented climate and vice versa (Nerstad et al., 2013; Pensgaard & Roberts, 2000). Following this line of theory, it is possible that digital mindsets have a similar impact – especially in weaker motivational climates. However, Nerstad and colleagues (2018) found that motivational climate may facilitate change in goal orientation over time. In her book on mindsets, Dweck also emphasizes the possibility of changing a fixed mindset into a growth mindset to experience the benefits thereof (2008). Hence, the presence of strong mastery climates (as seen in this sample) may compete with and reduce the expected effects of digital fixed and zero-sum mindsets.

Third, as many of the recent leaps into NWW were carried through almost overnight due to the COVID-19 pandemic, organizations and managers may have been extra aware of the challenges this presented. Consequently, it is likely that organizations and managers have put in place extraordinary measures to alleviate difficulties for their employees through greater involvement and support. A study by Federici & Vika (2020) indicates that this was the case in the teaching sector, where 94 % of teachers experienced ready access to technical support during the pandemic (N = 2257), while 70 % of participants reported access to pedagogical support. As such, the expected outcomes of fixed and zero-sum mindsets that align with a performance climate (e.g. seeking to perform well relative to others, shying away from challenge, and competitive behavior) may have been somewhat discouraged. The degree of organizational and/or managerial involvement could instead have led individuals to perceive more mastery-oriented climates, as is the case in this study. This possibility aligns well with extant theory on motivational climate that indicates strong positive associations between felt support and mastery climate (e.g. Stornes et al., 2008).

Lastly, although not hypothesized, a significant positive relationship was found between a digital fixed mindset and a perceived performance climate. This finding indicates that people who believe digital abilities to be fixed, are more likely to perceive a performance climate in which demonstrating superiority and gaining favorable comparisons to others are important (Černe et al., 2014; Nerstad, 2012). This finding further confirms previous research on the relationship between motivational climate and mindset that has revealed similar results within a sports setting (Ommundsen, 2001). People with a digital fixed mindset tend to “look for opportunities to display their competence and perform well relative to others using existing technological tools” (Solberg et al., 2020, p. 112) and will thus perceive the criteria for success at work to be more about performance (i.e., perceive a performance climate) than learning and growth (mastery climate). Moreover, following the research premises of Solberg and colleagues (2020), the positive association between a digital fixed mindset and a performance climate simultaneously indicates a negative association between a digital growth mindset and a performance climate that may be an interesting avenue for further research.

## **8.0 Strengths, limitations, and Suggestions for Further Research**

The findings in this study contribute both to the literature on motivational climates and the burgeoning research on NWW. With its support for Hypothesis 1, this study establishes a positive relationship between NWW and a mastery climate, which can hold important practical implications for organizations, managers, and HR personnel who organize (or desire to organize) work in line with NWW.

Another major strength of this study is that it pioneers a new and significant area of research that goes beyond studying motivational climates in a general work-setting. Instead, this study focuses on a specific type of work environment that is characterized by its flexibility and less time spent at the office, perhaps paving the way for further research of motivational climates in new settings. In a post-pandemic work environment characterized by change, digital technology, and workers' demand for more flexibility, findings can help inform organizations and managers on how to organize work in a way that promotes adaptive and beneficial outcomes for both organizations and employees.

Still, there are several limitations to this study that should be taken into consideration when interpreting the results. First, the study is conducted with data gathered from a convenience sample due to a limited timeframe and difficulties attaining enough data via sampling key organizations. Consequently, this affects the external validity of the findings, and they may not be representative of the larger work population (Bryman & Bell, 2015). Additionally, key demographics may be lacking as a result of selection bias, while others may be overrepresented. Therefore, the results cannot be generalized. Nonetheless, the study includes participants from a wide range of sectors within the work sphere and shows a significant relationship between NWW and mastery climate despite data noise. However, future research should replicate the results in a different setting to examine the relationship between NWW and motivational climate further, thereby increasing the external validity of the findings.

Second, no arguments or inferences can be made regarding causality in this study due to its cross-sectional nature (Bryman & Bell, 2015). All variables were collected at one point in time, with a short time lag between the independent and dependent variables to reduce the possible effects of common method variance (Brannick et al., 2010). Future studies would benefit from a longitudinal

design to examine whether NWW increase perceptions of mastery climates or whether a mastery climate causes a more positive view of NWW.

Third, all measures were attained through self-report questionnaires and could be subject to biases. One issue is the tendency of respondents to want to appear socially desirable, that is, answering in line with what they think is socially desirable rather than what most accurately reflects their experience (Nederhof, 1985). However, as suggested by Nederhof (1985), the anonymity of this research was explicitly stated to reduce such an effect, and participants used self-assessment questionnaires rather than an external assessor. Still, according to Donaldson and Grant-Vallone (2002), including only one measure of data is another limitation that may bias the results. Therefore, further studies should include another measure (e.g. both employee and manager evaluation) to increase the validity of findings.

Fourth, regarding digital mindsets, only fixed and zero-sum mindsets were measured. Thus, nothing can be hypothesized or concluded regarding the role of growth and/or expandable sum mindsets as potential moderators of the relationship between NWW and motivational climates. This may also have impacted the results as growth and expandable sum mindsets are simply assumed via low scores on their counterpart measures, fixed and zero-sum mindsets respectively (Solberg et al., 2020). As such, future research should include all four measures of digital mindsets to fully investigate their role as a moderator.

Lastly, the relationship between motivational climate and NWW likely depends on several factors and mechanisms which may compete with and counteract each other in a more complex manner than examined in this study. As shown in research by Buch et al. (2015), the contrasting value orientations in the two climates may undermine each other and consequently show insignificant relationships between focal constructs (here: NWW and performance climate). Future research should therefore examine mastery climate as a potential moderator of the relationship between NWW and performance climate to see if this is the case.

## **9.0 Practical Implications**

As the paradoxical nature of research on NWW suggests, making the transition towards NWW is not a guarantee for success (see Renard et al., 2021).

There are a range of positive outcomes that allure, but studies also show mixed effects, negative effects, or no effect at all (Nijp et al., 2016). The results obtained in this study carry important considerations for organizations and managers who have implemented aspects of NWW or consider doing so in the future.

Furthermore, the study may prove to be particularly insightful for HR personnel and other decision makers who are in the process of finding the most beneficial way to organize work after the impacts of the COVID-19 pandemic.

According to the results in this study, organizations, managers, HR-personnel and other key decisionmakers ought to work on implementing a mastery climate in settings where NWW is used. This theory aligns with previous research on motivational climate that highlights a mastery-oriented climate as the preferred climate (e.g. Černe et al., 2014; Nerstad et al., 2013, 2018a).

Implementing a mastery climate will likely produce the best outcomes for both organizations *and* employees. By creating a mastery climate employees should be encouraged to engage with and see the changes associated with NWW (i.e., the implementation and utilization of new technologies, and increased temporal and locational flexibility) as an opportunity for growth and learning rather than a win/lose situation.

Although the results in this study showed no significant relationship between a performance climate and NWW, the positive association between NWW and mastery climate suggests an important consideration for decisionmakers. By building upon a mastery climate, the implementation of NWW is, according to this study, likely to bring about more positive outcomes.

Organizations should highlight the importance of mastery criteria, such as growth and learning, by implementing systems and procedures that value and encourage the attainment of new knowledge (e.g. learning platforms or apps where employees have access to or can apply for relevant courses). Rewarding effort instead of performance is another important aspect of enhancing a mastery climate in an organization (Ames, 1992b). However, since leaders are considered the most influential in creating a motivational climate at work (e.g. Ames, 1992a; Nerstad et al., 2018b; Pensgaard & Roberts, 2002), the responsibility lies heavily in their arms. As such, leaders should strive to involve themselves with, and provide greater general support to their employees as suggested by Stornes et al., (2008). Furthermore, allowing, listening to, and valuing employees' contributions

have also proved to enhance perceptions of a mastery climate (Stornes et al., 2008).

In general, leaders ought to be aware of their role as climate builders (Pensgaard & Roberts, 2002). This awareness will give them the opportunity to intentionally create the preferred motivational climate and harvest the positive outcomes of NWW. On the other hand, ignorance in this matter will allow the subconscious development of a climate that may be contrary to their intended goals. Finally, as mentioned earlier, previous research suggests that the motivational climate may also determine mindset (Ommundsen, 2001). Therefore, the suggested relationship between a digital fixed mindset and performance climate in this study can perhaps be counteracted by the establishment of a mastery climate. Practically, this could imply that climates not only have the power to sway outcomes of NWW, they may also limit the negative effects of a digital fixed mindset by consciously designing mastery climates that emphasize learning and collaboration.

## **10.0 Conclusion**

This study contributes to the fields of NWW and motivational climate by establishing a positive relationship between the two concepts. A relationship between a performance climate and a digital fixed mindset is also found, adding to the literature on digital mindsets and aligning well with previous research on motivational climates. The study works to reaffirm the benefits of facilitating a mastery climate in organizations, especially when organizing work in line with NWW. Based on the results in this study, organizations and managers ought to establish mastery-based climates in their organization to glean the most beneficial outcomes of NWW. Such efforts may also limit the negative influences of a fixed digital mindset.

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## 12. Appendices

### 12.1 Appendix I – NSD Approval

#### Vurdering

**Dato**  
17.03.2022

**Type**  
Standard

**Referansenummer**  
558512

**Prosjekttittel**  
The Relationship Between New Ways of Working and Motivational Climate: The Moderating Role of Digital Mindset

**Behandlingsansvarlig institusjon**  
Handelshøyskolen BI / BI Oslo / Institutt for ledelse og organisasjon

**Prosjektansvarlig**  
Anders Dysvik

**Student**  
Rebekka Særsland

**Prosjektperiode**  
15.03.2022 - 01.07.2022

[Meldeskjema](#)

#### Kommentar

OM VURDERINGEN

Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

#### DEL PROSJEKTET MED PROSJEKTANSVARLIG

For studenter er det obligatorisk å dele prosjektet med prosjektansvarlig (veileder). Del ved å trykke på knappen «Del prosjekt» i menylinjen øverst i meldeskjemaet. Prosjektansvarlig bes akseptere invitasjonen innen en uke. Om invitasjonen utløper, må han/hun inviteres på nytt.

#### TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til den datoen som er oppgitt i meldeskjemaet.

#### LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake.

Ved bruk av databehandler (spørreskjemaleverandør, skylagring eller videosamtale) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

#### PERSONVERNPRINSIPPER

Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke behandles til nye, uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

#### DE REGISTRERTE RETTIGHETER

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), og dataportabilitet (art. 20).

Personverntjenester vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned

#### FØLG DIN INSTITUSJONS RETNINGSLINJER

Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon.

#### MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: <https://www.nsd.no/personverntjenester/fyll-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema>  
Du må vente på svar fra oss før endringen gjennomføres.

#### OPPFØLGING AV PROSJEKTET

Personverntjenester vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

## 12.2 Appendix II – Research Questionnaire

### **Part 1 (first wave)**

#### **Q1. Hva er din epostadresse?**

#### **Q2. Kjønn**

- Mann
- Kvinne

#### **Q3. Alder**

- Under 22
- 22-29
- 30-37
- 38-45
- 46-53
- 54-60
- Over 60

#### **Q4. Hva er din høyeste fullførte utdanning?**

- Grunnskole, videregående, fagbrev o.l.
- Universitet-/høyskoleutdanning inntil 4 år
- Universitet-/høyskoleutdanning over 4 år

**Q5. Hvilken næring jobber du innenfor?**

- Helse og omsorg
- Varehandel
- Industri
- Bygg og anlegg
- Undervisning
- Offentlig administrasjon
- Faglige tjenester
- IT og medier
- Olje og gass
- Finans og forsikring
- Annet (vennligst spesifiser under)

**Q6. Hvilken organisasjon jobber du for?**

**Q7. Har du en lederstilling i din nåværende jobb?**

- Ja
- Nei

**Q8. Noen spørsmål om din arbeidssituasjon. I hvor stor grad stemmer**

**følgende påstander med din arbeidssituasjon?** *(Stemmer ikke i det hele tatt – stemmer i liten grad – stemmer verken/eller – stemmer noe – stemmer helt)*

1. Jeg kan selv velge når jeg skal jobbe.
2. Jeg kan selv velge hvor jeg skal jobbe.
3. Jeg kan jobbe hjemmefra hvis jeg ønsker det.
4. Jeg kan selv velge måten jeg jobber på.
5. Min leder involverer seg ikke i hvordan jeg gjør jobben min.
6. Min leder evaluerer meg basert på kvaliteten av arbeidet mitt, ikke hvordan jeg har jobbet.
7. Ved behov har jeg enkelt (raskt?) tilgang til kollegene mine.
8. Ved behov har jeg enkelt tilgang til lederen min.
9. Ved behov har jeg enkelt tilgang til kolleger utenfor teamet mitt.
10. Jeg har tilgang til informasjon jeg trenger for å gjøre jobben min fra en datamaskin eller smarttelefon.
11. Jeg har tilgang til informasjon jeg trenger for å gjøre jobben min uavhengig av hvor jeg befinner meg, når som helst på døgnet.

12. Jeg kan selv tilpasse tidsplanen min på jobb etter min livsfase og ambisjoner.
13. Jeg kan selv velge å jobbe flere eller færre timer.
14. Bygningen/lokalet er tilpasset slik at kollegene mine er lett tilgjengelige.
15. Bygningen/lokalet er tilpasset slik at mine ledere er lett tilgjengelige.

**Q9. Noen spørsmål rundt teknologi. Vennligst velg det svaralternativet som best beskriver hvor enig eller uenig du er i påstandene under. (Helt uenig – uenig – verken enig eller uenig – enig – helt enig)**

**Generelt mener jeg at:**

- En persons teknologiske ferdigheter er iboende og er derfor ikke noe man kan gjøre noe med.
- Hvorvidt en person vil være rask og kompetent til å bruke ny teknologi, henger tett sammen med hva slags type person de er. Dette er ikke noe som kan endres i stor grad.
- Det er lite som kan bli gjort for å forandre en persons evne til å holde tritt med teknologisk utvikling. Vi er alle forskjellige og noen vil takle teknologiske forandringer bedre enn andre.
- Selv om en person noen ganger kan lære nye ting, kan du egentlig ikke endre en persons grunnleggende evne til å tilpasse seg ny teknologi.
- Når teknologiske endringer blir introdusert i organisasjoner, er det ofte de ansatte som taper.
- Ny teknologi reduserer mulighetene for at nåværende ansatte kan lykkes i sin nåværende jobb.
- Desto flere jobber teknologien overtar i en organisasjon, desto færre gode jobber gjenstår til de ansatte.
- Ressurser brukt på teknologiske endringer fratrukket ressursene fra de eksisterende ansatte.
- Med enhver ny teknologi, er det folk som mister jobbene sine.
- Ansatte vil ha mindre innflytelse i organisasjoner jo mer teknologien overtar.



## **Part 2 – (second wave)**

**Vennligst velg det svaralternativet som best beskriver hvor enig eller uenig du er i påstandene under.** (*Helt uenig – uenig – verken enig eller uenig – enig – helt enig*)

1. I min avdeling/arbeidsgruppe oppfordres det til samarbeid og gjensidig utveksling av tanker og ideer.
2. I min avdeling/arbeidsgruppe måles arbeidsprestasjoner på grunnlag av en sammenligning med kollegaers prestasjoner.
3. I min avdeling/arbeidsgruppe legges det vekt på den enkeltes læring og utvikling.
4. I min avdeling/arbeidsgruppe motiveres det til rivaliserin mellom ansatte.
5. I min avdeling/arbeidsgruppe oppfordres det til samarbeid og gjensidig kunnskapsutveksling.
6. I min avdeling/arbeidsgruppe oppfordres det til interne konkurranser for å oppnå best mulig resultat.
7. I min avdeling/arbeidsgruppe blir arbeidstakerne oppmuntret til å prøve nye løsningsmetoder i arbeidsprosessen.
8. I min avdeling/arbeidsgruppe fremheves (kun) de arbeidstakerne som oppnår de aller beste resultatene/prestasjonene.
9. I min avdeling/arbeidsgruppe eksisterer det et rivaliserende konkurranseforhold blant arbeidstakerne.
10. I min avdeling/arbeidsgruppe blir man oppmuntret til å prestere optimalt for å ha muligheten til å oppnå pengebelønninger.
11. I min avdeling/arbeidsgruppe har alle en viktig og tydelig oppgave i arbeidsprosessen.
12. I min avdeling/arbeidsgruppe blir den enkeltes prestasjoner sammenlignet med andre kollegaers prestasjoner.
13. I min avdeling/arbeidsgruppe er et av målene å få den enkelte til å føle at han/hun har en viktig rolle i arbeidsprosessen.
14. I min avdeling/arbeidsgruppe er det viktig å prestere bedre enn andre.