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Teaching during the COVID-19 pandemic: a
qualitative study of Norwegian teachers'
perceptions of the consequences for their mental
health and wellbeing

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Abstract

During 2020-2022, the Covid-19 pandemic gave rise to unprecedented changes in working life, not least in relation to schools. Teachers' work demands and responsibilities increased during this period, with international research indicating that teachers experienced increased stress and poorer mental health and wellbeing (MHWB). This study examined the perceptions Norwegian teachers had of their experiences of working during the pandemic, and how they understood these work-related changes in terms of the consequences for their own MHWB. The study was conceptualized by drawing on the Job-demand resources (JD-R) model. In addition, Marmot's socioecological model of the 'social determinants of health' was used to position the JD-R and school organizational context in a broader context. This conceptualization was viewed as lending itself to exploring in detail the impact of working conditions on teachers' MHWB. A qualitative cross-sectional design was used, which used semi-structured interviews as the data collection method. Seven teachers were recruited from elementary and high schools from different municipalities. The semi-structured interviews were audio-recorded, transcribed, and analyzed using Reflexive Thematic Analysis (RTA), where a mixture of an inductive and abductive coding approach was used to develop themes relating to the research question. This generated two themes: (i) increasing demands and expectations in an unpredictable environment and (ii) increasing job strain and its consequences for MHWB. It was evident in this study that the unpredictable situation increased Norwegian teachers' work demands, putting pressure on teachers, and impacting their MHWB. This was influenced by the challenges of maintaining distance learning and caring for students during the pandemic, whilst lacking resources such as social support in dealing with the uncertainties of constant changes paired with responsibilities regarding family life. The impact of the Covid-19 pandemic on Norwegian teachers' MHWB should be of concern to politicians, school managers, and unions. If teachers' MH&WB is to be maintained now and, in the future, regardless of a further pandemic, then it would be beneficial to consider how to better manage work demands and resources, for example, by ensuring better communication within and beyond school, and facilitating teachers' access to sources of social support and other more specialized support (such as skills for digital teaching). These measures could be crucial during and following pandemics in maintaining teacher MHWB, but also in supporting the wellbeing of the entire educational community.

1 Chapter 1- Introduction

1.1 Background: teaching during the pandemic

On March 12th, 2020, the Norwegian Government – in common with many other governments around the world – implemented the most extensive measures they have had in Norway during peacetime, affecting people’s personal freedom and everyday lives to reduce the spread of Covid-19 (Statsministers kontor, 2020). The Government decided to close all schools and kindergartens in the country, and everyone that could work from home was encouraged to do so (Arbeids- og sosialdepartementet, 2020). The changes that government implemented in schools lasted for two years where changes in the traffic light system varied locally and continuously in municipalities, depending on the infection prevalence.

The Epidemic Response Committee (ERC) and the National institute of Public Health (NIPH) in Norway published reports in 2020 (ERC) and 2021 (NIPH) on behalf of the Government. These reports emphasized the challenges children and youth in Norway faced during the traffic-light models of school closures, where schools were either open (green), partly closed (yellow) or either completely closed or running a double-track teaching system (red). This meant that some days half of the class was at home and half the class digital (red) or entire classes had at-home schooling. According to the reports this led to children experiencing they learned less, were more absent due to strict disease control measures, and that digital teaching was a poor substitute for physical learning (Folkehelseinstituttet, 2021a; Ekspertgruppe, 2020). The objective to reopen schools as soon as possible despite the risk of Covid-19, was to limit the burden on children and youth’s health due to restrictions and school closures, which seem to have had a negative impact on child health, education, and development (World Health Organization, 2020; Helsedirektoratet, 2021). However, in Norway as elsewhere, the consequences of the restrictions for teachers have been far less studied to date,

especially in terms of their mental health and wellbeing (MHWB), which is the focus of the research for this thesis.

As societies have become increasingly complex, so too have the links between people and their environments. A socioecological approach to health, situates people in relation to these multilayered environments and emphasizes how changing patterns of work, life, and leisure can have an impact on health in both desirable and undesirable ways (WHO, 1986). In other words, where people live and work in their everyday lives, has consequences for their health. This is reflective of the wider influences on people's health which are referred to in public health as the 'causes of the causes' or the 'social determinants of health' that provide a framework for understanding how environments can influence health (Jones, 2012, p. 7-8). Marmot (2010) describes the 'causes of the causes' of ill health such as inequalities in the conditions of daily life arguing that social and economic inequalities underpin and shape the determinants of health and wellbeing. These include material circumstances, the social environment, psychosocial factors, behaviors, and biological factors. These factors are influenced by social position which itself is shaped by education, occupation, income, gender, ethnicity, and race. All these influences are affected by the socio-political and cultural and social context in which they sit (Marmot, 2010, p.16). In particular, Marmot (2010) highlighted the importance of the work environment as a key determinant of health. A population's wellbeing, having positive relations and experiences, but also their perception of self-efficacy and belonging to a community, are important public health perspectives in population health and wellbeing by looking at the social aspects of life (Helsedirektoratet, 2015). Being valued, included, and having social support increases confidence and feelings of self- efficacy and contributes to happiness. Therefore, having a sense of control over one's life can contribute to feelings of happiness, which can affect our physical and psychological wellbeing and impact our health (Wilkinson & Pickett, 2019).

The seemingly negative effects of school closures on children and youth's mental health and learning, led the Government in Norway to follow the guidelines of the NIPH, and prioritize the vaccination of school and kindergarten employees starting in week 27 of 2021, with the intention of all employees receiving the first dose of the Covid vaccine three weeks prior to schools re-opening in August (FHI, 2021b). Despite the Government's announcement of teacher vaccine prioritization, the Ministry of Education stated that it would be a decision left for the local municipalities to decide whether to prioritize teachers and school staff (Vik, 2021). Given the provided vaccine dosages of the municipalities and risk groups in the local population, it might have led to some teachers receiving their first dose later than anticipated. This was despite the increased risk of Covid infections being documented by NIPH in January of 2021, and teachers worries of being carriers of Covid-19, being exposed to- and contracting Covid- 19 had been prominent and may have contributed to mental strains on many teachers in Norway (Korpås, 2021; FHI, 2021c).

Early in 2022, Steffen Handal, head of the Union of Education in Norway (UEN), addressed the media with his concerns regarding tired teachers who had worked their way through the pandemic, and grown exhausted, gone on sick-leave and who had expressed the desire to change vocation (Korsmo,2021). Steffen Handal criticized the Government and the ERC, where they seemingly failed to address teacher's mental health and their work environment and safety in their report on the consequences of the pandemic and disease control measures in schools in Norway (Ghosh & Kolstad, 2020).

Given that there is an interaction between the individual and the environment that shapes whether a demand is deemed challenging or if people can cope (Helsedirektoratet, 2017), it is important to understand teachers' experiences during the pandemic to understand how they perceive this unique situation. This implies that the changing context during the COVID-19 pandemic may have increased the demands on teachers and had several consequences for the

extent to which they felt able to meet those demands and remain effective. Understanding this may lead to insight in how we can affect the environment, or frame the conditions teachers work in, by adjusting the resources at their disposal to reduce stress and aid in teacher's coping and wellbeing. These are important factors that impact health and quality of life.

Schools do not operate in a vacuum and are dependent upon resources and support of their communities. For teaching to be effective, teachers need to have high levels of wellbeing, self-efficacy, and confidence, given that teachers are an important workforce in all societies (Schleicher, 2018). Kim et al. (2021) argue that the pandemic has shown the necessity for national and international concern for the need to value and support the teaching profession and address teacher's MHWB. Teacher's stress, but also the challenges of creating, maintaining, and improving distance learning has been acknowledged by UNESCO (2020) as two of thirteen potentially negative consequences of schools being closed during the pandemic. That is why the documented impact of teacher work demands and the stress they produce has been an important issue for educational professionals, policymakers, and researchers to find ways to understand causes and improve teacher wellbeing (OECD, 2020; Schleicher, 2021). The COVID-19 pandemic has been a phenomenon that has magnified the importance of work contexts for teachers.

In Norway, despite the Government's interest in developing guidelines for disease control, and measures to keep schools open for the sake of children and youth's health and learning, there seems to have been little attention paid to teacher's mental health and work experiences during and following the pandemic. Therefore, the aim of this study is to gain insight and understanding into teacher's experiences in Norway from the beginning of the pandemic in 2020 and until this study was conducted early 2022, and their perception on the consequences for their MHWB.

Given the way in which the educational systems in different countries tried to control the COVID-19 transmission, country specific studies are important. Norway is an interesting example of how the municipalities were left to themselves to decide the traffic light systems despite national guidelines. A qualitative approach to the study was chosen since most research to date in Norway was based on quantitative surveys. There has been very little qualitative research that has explored different experiences from the perspective of teachers during Covid-19 in Norway.

1.2 Research aim and research questions

The aim is to explore teachers' experiences and perceptions of working during the pandemic.

More specifically the study uses the following research questions:

1. How did teachers' work situation change during the pandemic?
2. How did these work-related changes make them feel about the demands on their work capacity?
3. How did teachers understand the work-related changes in terms of the consequences for their own mental health and wellbeing?

1.3 Outline of the thesis

The thesis is organized in five chapters. Following the Introduction, chapter two presents a timeline of the unpredictability of Covid-19 measures, following a review of major concepts that are relevant to this study before moving on to a critical review of the literature in the field of workplace stress in general and among teachers. This chapter ends with presenting the theoretical framework that was used to conceptualize the study. Chapter three presents the research process in terms of methods and research design. The findings from the study are presented in chapter four. Chapter five discusses the research findings in relation to prior literature, research, and theory and concludes the thesis by presenting its strengths and limitations, whilst offering suggestions for future research. It also considers the public health implications of the findings.

2 Literature Review and Theoretical Framework

In this chapter, an overview of the governments disease control measures will be presented following a definition of central terms used in the study along with the literature review, and lastly the theoretical framework. Research literature, both international, Nordic, and Norwegian, will be reviewed that is of relevance to the study and that reflects the choice of theoretical framework.

2.1 Unpredictability caused by the government's Covid-19 measures

WHO declared the outbreak of the Coronavirus a pandemic on March 11th, 2020 (Statsministers kontor, 2020). The following day the Norwegian government implemented national disease control measures to handle the pandemic by closing all schools and continuing to control school closures by traffic light models according to the increase or decrease in infections. This lasted until February 12th, 2022. The spring of 2020 was impacted by extensive Covid-19 measures and school closures (red traffic light level) with a gradual reopening of schools towards the summer of 2020 (yellow level). The schoolyears of 2020 and 2021 were characterized by varying infection levels around the country where some places experienced higher levels of infection and needed extensive local (municipal) disease control measures and quick changes to manage these (Udanningsdirektoratet, 2022). The winter of 2021 was also marked by temporary school closures and red levels several places. The schoolyears of 2021 and 2022 also had infection levels and Covid-19 measures varying throughout the schoolyear between national and local level. The year 2021 began with high infection rates and uncertainty around disease control measures. In the autumn of 2021, there was a high level of absence among students and teachers due to Covid-19 infections, but also other reasons (UDIR, 2022). From December of 2021 and until January of 2022, government decided for red levels to be

implemented in high schools and yellow levels in elementary and upper-secondary schools due to the surge of Covid-19 and the Omicron variant of the coronavirus.

The continuous and sudden changes in teachers' working conditions left them in an unpredictable environment where changes happened on both national and local level. The timeline and the unpredictability in teachers working conditions is illustrated in Table 1.

Table 1. *Illustration of the timeline of the Norwegian governments' school closure policies*

- **March 2020:** Extensive disease control measures and school closures (red level) on national level.
- **June 2020:** Gradual reopening of schools towards summer (national yellow level).
- **Autumn 2020:** Variations in infection rates and traffic light models. Municipalities with higher infection rates decide themselves on traffic light levels and school closures with changes happening rapidly.
- **February until April 2021:** Varying disease control measures (yellow and red level) in schools across municipalities due to local outbreaks of Covid-19.
- **Autumn of 2021:** Both national and local disease control measures happening in schools with high levels of absenteeism amongst pupils and teachers.
- **December 16th, 2021:** Red level in high schools and elementary and upper-secondary school due to the surge in Covid-19 cases and the Omicron variant.
- **January 26th, 2022:** National recommendation for green level in high schools, and yellow level in elementary and upper-secondary schools. Municipalities decide the local situation.
- **February 12th, 2022:** Government lifts Covid-19 measures in schools and elsewhere.

2.2 Work Demands, Stress, Control, and Coping

Stress occurs when the environmental demands challenge or exceed an individual's perceived capacity and ability to manage, where the uncertainty of perceived personal control and potentially threatening outcomes affect our wellbeing (Fink, 2016; Calvo & Guterrez-Garcia, 2016). It is not just about internal individual resources that enable control and self-efficacy, but also the social environment the individual is in – such as the work environment – that puts a psychological strain on people.

Social environments also add to demands and can contribute to feeling a loss of control, which may lead to further emotional impact and distress in an individual (Bandura, 1997; Dewe et al., 2010; Marmot, 2015). The severity of job stress depends on the magnitude of the job demands, paired with an individual's own sense of control or decision-making latitude (control over work tasks throughout the workday) when it comes to dealing with stress (Schonfeld & Chang, 2016; Calvo & Guterrez- Garcia, 2016).

Lazarus and Folkman (1984) define stress as being a process between the individual and the environment. Feelings of stress arise when the resources at an individual's disposal are unequal to the environmental challenges, demands and expectations, which can affect how one copes with a stressful situation, endangering a persons' wellbeing (Lazarus & Folkman, 1984; Calvo & Guterrez- Garcia, 2016). Job resources in a stressful situation may be having the sense of control, having social networks that offer support and using coping strategies to maintain mental health (Stephenson et al., 2016).

Stress could be interpreted by the individual as either positive or negative (Devonport, 2011), and that individual differences in response to stressors could be either threatening or non-threatening to a person's wellbeing (Fink, 2016). Therefore, in this study exploring teachers' different experiences and perceptions is of interest to understand how they made sense

of the changes in their work situation, but also whether they felt able to adapt and manage the changes and whether it affected their MHWB.

Coping is defined as the ability to manage external (initial stressor) and internal (individuals' interpretation of the same stressor) stressful situations and is affected by the exercise of control (Bandura, 1997). Coping is therefore considered a shifting process where a person must at certain times rely on either defensive (emotion focused) or problem-solving strategies to cope with a stressful situation, as the person-environment relationship changes (Lazarus & Folkman, 1984). The interpretation of the same stressor may therefore vary between individuals and whether stress (for instance in the work environment) is perceived as stressful will depend on the resources available in the environment (such as control and support). This may determine whether the stressful situation is a threat to the individual's wellbeing (perceiving the situation as stressful) (Lazarus & Folkman, 1984).

2.2.1 Job Stress and Coping

In recent years, theoretical developments have moved away from simple physiological models and psychological explanations by including social surroundings, for example in the work field, organizations. These imply that stress lay in the work itself, rather than the individuals' resources and ability to cope, and that stress arose from the dynamic process between an individual and the character of the work itself (Devonport, 2011). Since where you work is part of society, stress cannot only be defined by personal experience but also the social environment that influences your ability to cope, which in the field of work includes such aspects as having low control over workflow and demands, little predictability and lacking social support (Marmot, 2015, p.109- 114). This reflects the Whitehead and Dahlgren (2007) 'determinants of health' model (Bird & Whitehead, 2012). This model illuminates how working conditions such as monotonous work, inadequate social support, high levels of demands, low control and low

reward may all be risk factors for poor health affected by the wider socioeconomic and cultural environment (Bird & Whitehead, 2012). Devonport (2011) argues that when dealing with stressors in a work context, organizational climate may provide the individual with resources to influence the stress process and coping, such as aiding with knowledge, sense of control, giving social and financial support, but also constraining the coping response by failing to provide necessary resources.

Sustained, chronic and long-term stress is linked to low control over life circumstances (Marmot, 2015 p. 109). To understand stress is to go beyond the notion of workload and look at the psychosocial aspect of the work environment where a stressful workplace is not just the level of psychological demands, but also the balance between demands and control that leads to stressful work if there is an imbalance between effort and reward (Marmot, 2015, p. 123-125). Experiencing the lack of sense of control over work, may increase stress which over long periods of time may be damaging to health and have a physiological and psychological impact on employees as well as affect employee turnover (Wilkinson & Pickett, 2019). Teacher stress is defined as ‘a negative emotional experience triggered by the teacher’s perception of an external situation that either threatens their self-esteem or wellbeing’ (Kyriacou, 2001, p. 28; Spilt et al., 2011, p.466).

2.3 Mental Health and Wellbeing

Keyes (2002) defined mental health as a set of symptoms of hedonia (absence of distress) and positive functioning, influenced by measures of subjective wellbeing (SWB), which are individuals’ perceptions and evaluations of their lives and the quality of their functioning in life (Keyes, 2002; Keyes, 2005). According to Keyes (2005), a flourishing individual judges their emotional, psychological, and social health positively, simultaneously being free of mental illness, while languishing individuals have low levels of emotional wellbeing combined with

low levels of psychological and social well-being. Mental health is therefore seen as more than just the absence of psychopathology. With this, Keyes (2005) argues that individuals are more than just either mentally ill or mentally healthy, but rather that the way in which they perceive and evaluate their own functioning and quality of life, affects their mental health through the ability to cope with stressors and life challenges, and finding meaningful lessons from these. If mental health is operationalized as affirmative feelings and functioning in life where individuals are flourishing, then they are more likely to be able to shape their environment to satisfy their needs whilst having a degree of self-determination (Keyes, 2002; Keyes, 2005) or control as Marmot (2005) would argue in the work situation. Keyes (2002) also argues that individuals evaluate their functioning in life through their social wellbeing, such as when they see society as meaningful and understandable with potential for growth, belonging and acceptance within communities, and accepting and contributing to parts of society. This could for instance be attributed to teachers' sense of belonging and contributing to their educational communities by feeling valued for their work and perceiving they make a difference in their local communities.

2.3.1 Teacher stress and the impact on their mental health and wellbeing: International and Nordic research

It may seem as though work is becoming more complex and comprehensive, and the demands for producing results are getting bigger, including in the education sector. The factors which influence teachers' job experience are not only individual, but also organizational, and to understand teachers' mental health and wellbeing during the pandemic, it is important to look at both in relation to each other (Truzoli et al., 2021).

It is well documented that working as an educator is a stressful occupation and the effects of stress, such as burnout and reduced wellbeing, have been documented in international research (Desrumaux et al., 2015; Chang, 2009; Hakanen et al., 2006; Liu & Onwuegbuzie,

2012) and Nordic research (Skaalvik & Skaalvik, 2009; Skaalvik & Skaalvik, 2015; Skaalvik & Skaalvik, 2017; Skaalvik & Skaalvik, 2018; Skaalvik & Skaalvik, 2020). Burnout is often observed in individuals who work closely with people, such as teachers, and is classified as a job stress phenomenon where an overburdening workload and high levels of tension, may result in physical, mental, and emotional exhaustion with negative attitudes towards oneself and others (Maslach & Leiter, 2008). Maslach and Leiter (2008) state that the workers' internal experience of strain (such as job stress) plays a mediating role between the impact of external job demands (stressors) and work-related outcomes (such as absenteeism or illness).

Possible consequences of long-term stress and high job demands amongst teachers is reduced teacher self-efficacy, commitment, and reduced teacher wellbeing (Skaalvik & Skaalvik, 2016; Skaalvik & Skaalvik, 2018; Klassen et al. 2013). This may in turn result in higher levels of burnout (Betoret, 2009) and increased motivation for leaving the profession (Skaalvik & Skaalvik, 2011; Den Brok et al., 2017; Desrumaux et al., 2015). In fact, amongst the teaching profession, stress and overall wellbeing are often recognized as key reasons as to why educators either choose to leave or stay in their profession (Naghieh et al., 2015).

The topic of teacher stress has long been of importance for policymakers, researchers and those working in education (Kyriacou, 2001). This is because a stimulating workplace and working conditions are important for teachers, where stress and an administration-heavy work environment may lead to lower work satisfaction and work-related wellbeing (OECD, 2020). So far, it seems that most efforts to improve and support the education profession have been targeting individual wellbeing and have failed to recognize the complex nature of education organisations and the cultural context in which schools operate (Naghieh et al., 2015). The Teaching and Learning International Survey (TALIS) in 2018 showed that administrative work was the top source of teacher stress which leads to longer working hours and attrition (Schleicher, 2021).

Societal, organizational, and interpersonal challenges affect those working in education (Giudetti et al., 2018). Organizational factors seem to be consistently predictive factors of stress and satisfaction amongst teachers, where work-related stress develops under perceptions of excessive job demands, low social support and low control leading to a perception of bad organizational health (Oullette et al., 2018).

Looking at the relationship between organizational health and teacher stress and mental health, also identifies a sense of control as an important mediator between social support and developing acute stress symptoms, where individual cognitive resources and abilities are influenced by social factors such as social support (Zhou & Yao, 2020). Increasing an individual's social support may help improve their sense of control and satisfy psychological needs such as emotional support, self-efficacy, and generalized belief in controlling their own life, which can help in coping with stressful events such as increased job demands during Covid-19 (Oullette et al., 2018; Zhou & Yao, 2020; Baka, 2015). Psychosocial factors that occur at work, such as feelings of tension, receiving social support, low job control, work fulfillment and repetitive work are associated with the wellbeing and health of employees, and can lead to sleep deprivations, anxiety, depression, and musculoskeletal disorders among teachers (Ng et al., 2019). Teachers also experience role stress, defined as anything that produces, individually and organizationally, adverse consequences for an individual which may lead to job dissatisfaction and affect an individual's wellbeing (Conley & Woosley, 2000). In an organizational setting where the environment affects the individual, teacher role stress may have negative consequences such as absenteeism, low job satisfaction and low job involvement (Conley & You, 2009). Role stress is important since employee turnover is related to the experience of role stress (Conley & You, 2009).

How teachers deal with demands and how much stress they experience also impacts their pupils' wellbeing and learning, since teachers who experience stress seem to struggle more with

forming social relationships with their pupils and lack teaching motivation (Ramberg et al., 2020; Arvidsson et al., 2019; Canrinus et al., 2012; Ozturk et al., 2021). Teachers' intentions of quitting their jobs and leaving their profession (Burić & Kim, 2020; Madigan & Kim, 2021b) may have a harmful effect on student outcomes associated with lower quality student motivation and worse academic achievement (Madigan & Kim, 2021a). So far, it seems that teacher wellbeing and potential burnout may impact the effectiveness of classroom teaching and affect student learning (Chang, 2009). If teachers struggle with wellbeing and experience symptoms of burnout, they are more likely to have strained relationships with their students, a reduced tolerance for unwanted classroom behaviour, annoyance with student inability to follow instructions, and negative views of their students (Grayson & Alvarez, 2008). On the other hand, teachers with high levels of wellbeing are likely to report higher levels of self-efficacy and job satisfaction in addition to increased commitment to stay in their profession (Viac & Fraser, 2020). Ultimately, teachers experiencing high levels of stress are less tolerant of challenging students, and teacher negativity may create a cycle in which student behavioural problems are exacerbated affecting their co-workers and the entire school community (Kokkinos et al., 2005). Therefore, the improvement of teachers' working conditions may be an asset to retain and even attract teachers to the profession (Bakker et al., 2007).

2.3.2 Impact of stress on teachers' mental health and wellbeing during Covid-19

Although there has been limited research to date, findings suggest that the pandemic has had an impact on teacher stress and mental health (Stachteas & Stachteas, 2020; Chen et al., 2020; Palma- Vasquez et al., 2020), as well as students (UNESCO, 2020). This has led to concerns about teachers' stress, health, and wellbeing, which to some extent has been related to increased workload and a transition to new learning platforms (Schleicher, 2020).

In many countries, the Covid-19 pandemic took teaching and learning strategies to online platforms, creating a need for digital resources and competency to use them, which may have resulted in putting more pressure on teachers (Ferdig et al., 2020). In this regard, the pandemic seems to have exposed the need for greater digital competency amongst teachers as well as pupils (Romero-Tena et al., 2021). Also, exposing the importance of communication between home and school and offering parents support during Covid-19 (Sormunen et al., 2022).

The global pandemic put a pressure on students, parents, governments, and schools and significantly changed the roles of teachers, which extended beyond teaching (Sormunen et al., 2022). In several studies, both qualitative and quantitative, carried out in different countries, the psychological effects of the pandemic were documented on children and adolescents, where Covid-19 lockdowns seem to have had a health impact and decreased wellbeing (Melby-Lervåg, 2020; Gustavsen et al., 2021; Mastorci et al., 2021; Emon et al., 2021; Holt & Murray, 2021; Gupta & Jawanda, 2020). Similar results were also shown in the Ungdata report where there was an increase in Norwegian youth reporting headaches, mental distress, feeling more academic pressure and lacking the ability to handle stress during the pandemic (Bakken, 2021, p.36). If students were struggling in these ways, it seems likely that not only will this make the teaching relationship more challenging, it is likely that teachers themselves are also struggling to adapt.

In a working condition survey study carried out in school across the United States, Kraft et al. (2020) found that ‘the sudden move to remote teaching created substantial challenges for teachers’ work and limited students’ engagement in learning’ (2020, p.3). Veteran teachers seem to have struggled more with the online shift in education (Kraft et al., 2020). As the expectations of teachers from students, families and a changing system grow, so does the level of stress, amotivation and anxiety among teachers, making teacher wellbeing an important issue (Dabrowski, 2020). Teachers’ anxieties surrounding the pandemic paired with the lack of

support from administration seem to be important predictors of teacher burnout (Pressley, 2021). The sudden shift in their working environment whilst having to tend to their own personal life, responsibilities, and obligations at home, seem to have taken a toll on the MHWB of many teachers worldwide (Kraft et al., 2020). The constant changes in teachers' work led to experiences of joy and achievement for some, whilst for others it has been a cause of sadness and frustration (Kim & Ashbury, 2020). Given the shift in working conditions and demands that teachers faced, paired with the findings from literature of what we already know of the impact of stress on teacher MHWB, studying how teachers experienced the pandemic in Norway remains important.

Persistently high workloads and pressure to achieve demands at work, may lead to absenteeism, burnout, and teacher attrition (United Nations, 2020). Trends of teacher absenteeism in other countries during Covid-19 have been reported by media in the United States, Australia and in schools in the United Kingdom. Teachers have expressed the desire to leave or have already left their job due to workload and the toll that stress has had on their mental health, as governments fail to listen to and value their teachers during the pandemic (Sainato, 2021; Weale, 2021; The Guardian, 2021). Teachers' experiences of anxieties and stressors from returning to school after Covid-19 lockdowns, in addition to workload, new job requirements, and classroom environments, may lead to burnout (Pressley, 2021).

Numbers from the Labour and Welfare Service in Norway show there has been an increase in sick leave in the educational sector that may be caused by stressful working situations and switching from teleworking back to physical teaching (NAV, 2021a; NAV; 2021b). In addition to remote teaching, teachers in Norway have had to keep updated on disease control measures (Caspersen et al., 2021), following up on vulnerable students, and adjusting the curriculum to fit distance learning which have all been mentioned as causes of discontent. This has led to the Respons analyse survey uncovering that 11% of the responding teachers in Norway had applied

for work in a different vocation, while 42% of the teachers were considering doing so (Respon analyse,2020; Korsmo, 2021). Norwegian teachers' assessment practices may also have been a challenge during the pandemic, with teachers struggling to follow up on pupils in need of learning assistance and worrying about cheating and plagiarism, while pupils expressed the lack of feedback from teachers (Sandvik et al., 2020). This was despite positive teacher-student relationships being as important for teachers' wellbeing as students' wellbeing (Spilt et al., 2011). So far, it may seem that prolonged experiences of feeling unsuccessful in coping with and alleviating levels of stress, lack of control, constant worrying and not having social support increases the risk of poor mental health, which may lead to physical ailments and teacher burnout (Skaalvik & Skaalvik, 2012).

Quantitative studies carried out in Chile measuring teacher's quality of life (QoL) before and during the pandemic, showed that teacher's QoL had been affected by long working hours and teleworking (Lizana et al, 2021; Lizana & Vega- Fernandez, 2021). The psychological impact on college teachers in China showed those who contracted Covid-19 and lost loved ones may have developed post-traumatic stress disorder (PTSD) (Fan et al., 2021). Qualitative and quantitative studies of teachers' MHWB in England, Ecuador and Morocco also seems to show it has suffered during the pandemic, with an urgent call for policymakers and practitioners to ensure more social support to improve teachers' MHWB (Kim et al., 2021; Amri et al., 2020; Hidalgo- Andrade et al., 2021). Quantitative studies done in the north of Spain showed that a high percentage of teachers had symptoms of stress, anxiety, and depression (Ozamiz- Etxebarria, 2021; Santamaria et al., 2021). In a quantitative study among teachers in China during the peak of Covid-19, researchers found that professional identity and job satisfaction were significantly negative predictors and important factors of job burnout, where increasingly heavy work tasks and pressure led to teachers feeling dissatisfied with work and unable to cope due to not having been given enough support from management (Chen et al., 2020).

Before the pandemic, most initiatives to improve teacher MHWB seem to be targeting individual wellbeing alone, failing to consider the need for organizational wellbeing interventions that consider the complexities of schools and educational organizations (Naghieh et al., 2015). As scholars have argued, there is a need for creating a bridge between the individual and the relational in schools, enhancing the wellbeing of school staff not simply by reducing stress and burnout on an individual level, but aiming for cultivating broader collective organizational culture of positive thinking, feeling, and aiding social support (Dabrowski, 2020). Improving organizational efficiency may be beneficial to improving employee MHWB, since there is an association between occupational stress and employee MHWB (Arnetz et al., 2011). School efforts to support teachers during the pandemic seem to have mattered, where schools that offered more support to teachers' 'remote working conditions were more successful in helping their teachers maintain a sense of success during the pandemic' (Kraft et al., 2021, p.4). Offering teachers social support can result in less psychological distress following stressful experiences, such as the psychological distress during the Covid-19 outbreak (Zhou & Yao, 2020). Kraft et al. (2021) further found that teachers were less likely to experience decline in the sense of success if the school provided effective communication, targeted professional development, recognized teacher efforts, facilitated meaningful collaborations, and held fair expectations of their employees during the pandemic. If educator wellbeing is seen as more than an individual problem, but rather as a collective and community responsibility, then policymakers might consider how changes can be made to teachers' 'environments, rather than to teachers themselves (Berryhill et al., 2009, p.9).

The pandemic changed the roles of teachers, highlighting the importance to invest in their technical, psychosocial, and emotional support to maintain and promote their health through health-promoting policies, which is the responsibility of many, not just one individual (Sormunen et al., 2022). Looking at different public health measures and schooling policy

responses to past pandemics such as H1N1 (influenza), Ebola and MERS, Fotheringham et al. (2022) found that communication and clarification of guidelines were important in the collaboration of community leaders and health officials. They also found that during Covid-19, schools needed strategies for the use of electronic learning as well as offering teachers support and academic instructions, and that closure decisions should be made on a regional, rather than local level, to ensure wellbeing of staff and students (Fotheringham et al., 2022).

2.4 Theoretical framework: JD-R and the socioecological model

To conceptualize the study and support the analysis, Bakker and Demerouti's (2007) Job-demand resources (JD-R) model, which builds upon Karasek and Theorell's (1990) Job-demand control (JD-C) model, was used as a starting point for considering a theoretical framework. This model deals with the concepts of occupational stress and how the work environment influences employees. The choice of the theoretical framework of this study reflects the findings from literature where job demands and access to resources seem to have been important influences on teachers' experiences of job strain within the organizational context. This theoretical model was used to better understand the findings from literature about job demands and resources, which guided this study's research questions. The theoretical framework also aided in understanding this study's research findings. In addition, Marmot's (2015) socioecological model, which draws on Whitehead and Dahlgren's model of the 'social determinants of health' (Bird & Whitehead, 2012) was used to understand the 'causes of the causes' to understand how teachers experiences and perceptions were situated in their everyday lives during the pandemic. The socioecological model highlights some of the concepts in the JD-R model and helps in understanding how external factors outside of organizational context caused by, for instance government policies, such as low control and high demands in working conditions, may contribute to poor MHWB (Bird & Whitehead, 2012).

The research reviewed in this chapter shows that teachers' occupational wellbeing is affected by organizational factors that reflect the influence of educational policy. Furthermore, the socioecological model positions teachers as part of a wider context that reaches into their lives beyond school to family life and other social roles implying that these are not distinct domains but rather inter-related. How people cope with stress and demands at work may vary between individuals, but it seems that factors such as resources and level of control are work-related stressors that potentially contribute to MHWB one way or another (see Figure 1. for proposed illustration of JD-R model on teacher job demands and access to resources affecting teacher MHWB). The choice of the JD-R model was based on the research aim of looking into teachers' MHWB, but also given that it is a framework that has previously been used for studying teachers' MHWB by OECD studies and used in existing OECD frameworks (Viac & Fraser, 2020). In particular, it facilitates a way of understanding teachers' socially situated experiences during a specific period of change.

The JD-R model proposes the idea that all jobs have job demands, but also job resources at an individuals' disposal which are social support and control (Bakker & Demerouti, 2007). Job demands are referred to as physical, social, or organizational aspects that require an employee's mental and physical effort and may have physiological and psychological costs to employee wellbeing (Martin et al., 2007; Bakker & Demerouti, 2007). On a task level, job control and the opportunity to use one's own skill at work is regarded as job resources that may promote achievement and growth (Martin et al., 2007). In the JD-R model, job demands may be aspects of work that cause feelings of stress and exhaustion, whilst aspects that help succeed in work tasks, even in stressful circumstances, provide a sense of purpose, accomplishment, and pride, and are referred to as job resources (Bakker & Leiter, 2010).

The premise central to the JD-R model is the concept of burnout where two underlying processes play a role: the effort driven process where excessive demands lead to exhaustion,

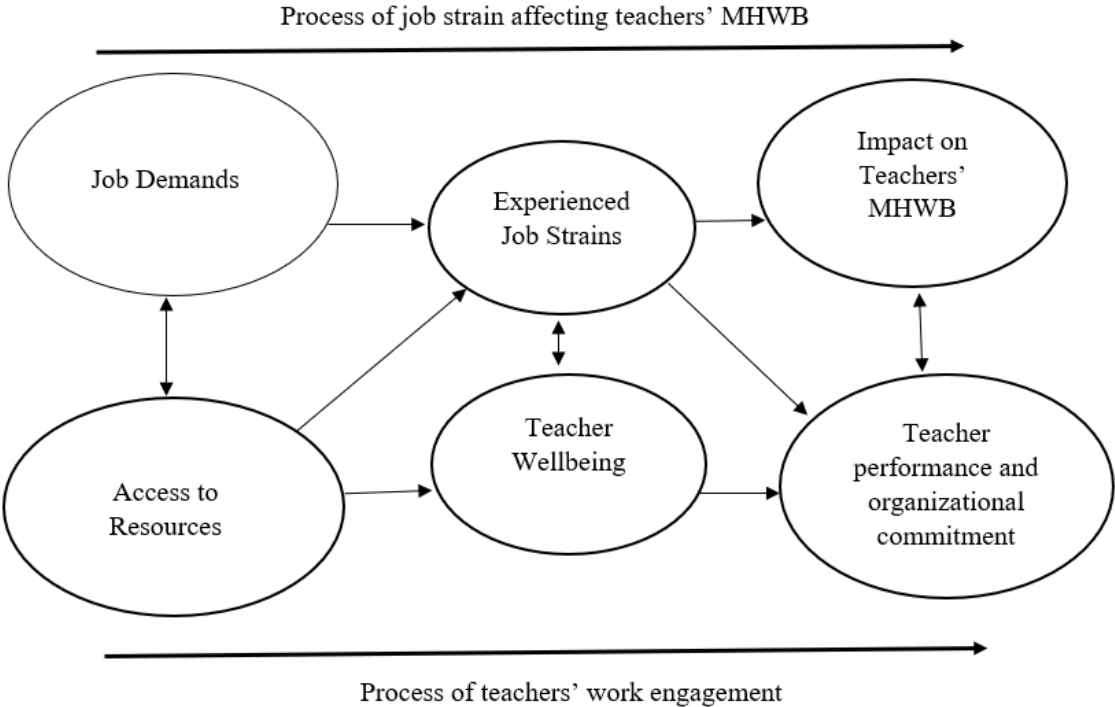
and the motivation driven process where insufficient resources to handle job demands may lead to disengagement (Schwartzhoffer, 2009). Burnout is defined as a ‘...*physical, emotional, or mental exhaustion, especially in one's job or career, accompanied by decreased motivation, lowered performance, and negative attitudes towards oneself and others*’ (Maslach & Leiter, 2008). In the JD-R model burnout states that job demands are primarily related to the exhaustion component of burnout, whereas resources are primarily related to disengagement among workers and possible turnover (Demerouti et al., 2001, p. 499). This model argues that burnout develops in occupations where job demands are high and resources limited, leading to negative working conditions and energy depletion affecting employee motivation (Demerouti et al., 2001).

The JD-R model therefore reflects Marmot’s (2015) idea of going beyond the notion of stress at work as simply ‘having a lot to do’, and that a stressful workplace is more than just psychological demands (2015, p.125). Having a balance of effort and rewards where a higher degree of control over work is less stressful, will have less impact on an individual’s health, especially their MHWB (Marmot, 2015). A reduction in job demands and an increase in job resources may therefore lead to a reduction in employee exhaustion and disengagement, resulting in more happiness at work (Demerouti et al., 2001, p. 510). In this regard, offering teachers job resources may lessen the effects of job demands on their MHWB (Bakker et al., 2005) where social support seems to be beneficial from preventing teachers from burning out, increasing their job commitment and may impact the issue of teacher attrition (Hakanen et al., 2006).

Marmot (2015) argues that some things are out of the individual’s control, such as individuals’ ability to control government policy that decides your working situation which has impact on the working environment, employee wellbeing, their wider circle, and consequently local communities. He further argues that sustained, chronic and long-term stress is linked to

low control over life circumstances where the amount of job demands is relative to control, resulting in job strain and is harmful to health (Marmot, 2015).

Figure 1. Illustrative model of Job Demands and Resources affecting teacher MHWB.



3 Methodology

3.1 Research approach and study design

This chapter describes the methodological approach adopted to answer the research questions. The credibility of a researcher's findings and interpretations depends greatly upon transparency of data and the credibility, transferability, dependability and confirmability through the research process and analysis (Patton, 2015; Bryman, 2016). The purpose of this chapter is to provide a transparent account of the research process towards that end. It starts by presenting the philosophical worldview and the ontological and epistemological paradigms underpinning the methodology. The second part of the chapter presents the research process and choice of the research method for collecting data. The third part of the chapter describes the data analysis. Lastly the quality of research in terms of ethics will be accounted for and discussed.

3.1.1 Philosophical worldview: Ontological and epistemological paradigms

In this study research questions were developed having read research literature, which in turn guided the decision for the use of a qualitative research design with semi-structured interviews that complemented the aim of research and reflected the philosophical position. Social constructivists believe that individuals seek understanding of the world in which they live and work and that we develop different varying and multiple meanings of our experiences (Creswell, 2014), although it is still possible to uncover patterns. Therefore, in this study the epistemological interpretivist position compliments the ontological constructivist worldview of reality in that every teacher's experience was perceived as important in understanding how they perceived their work environment as either positive or negative potentially affecting their MHWB. Interpretivism is an epistemological term that reflects this notion of understanding

social reality and gathering meaning and knowledge through individuals' sense of the world (Bryman, 2016).

Creswell (2014) proposes that in planning a study, researchers need to present the philosophical ideas underpinning their research and that no one enters a study in a mindless fashion but rather has distortions based on their preceding values and constructions.

The ontological positioning of this study is constructivist. Events or situations are open to as many interpretations and constructs as there are people experiencing and engaging in them, or as many reconstructions the individual's imagination allows as individuals construct realities and add meaning to individual everyday life experiences (Lincoln & Guba, 1989, in Patton, 2015). Constructivists believe there is no objective reality (Patton, 2015). In relation to teachers and their work environment, the reality they experience in their everyday lives at work shapes their perspectives of their work situation. This understanding of reality is in a constant process of reconstruction where external influences (such as government policies) which they have little influence over, create changes in their work situation forcing them to adapt their understanding of how they perceive work being either stressful or rewarding (Bryman, 2016).

3.1.2 Research approach

The use of qualitative research to gain understanding of a topic that is little known is useful when exploring a new phenomenon with a particular sample to gain a detailed understanding of the meaning it has for individuals (Creswell, 2014). According to Lincoln & Guba (1985), it is not possible to understand any phenomenon without reference to the context in which it is embedded.

Qualitative research adopts a primarily inductive approach, in which the perspectives of those studied is the empirical point of departure. In ideal terms, theorizing is supposed to be the outcome of the research, rather than preceding it (Bryman, 2016). This study started abductively

by reading the research literature and forming a view on how to conceptualize the study and formulate the research questions (Tjora, 2017). An abductive approach means going back and forth between the existing literature and the developed research questions that guide your study whilst being aware of the theoretical framework that helps understand and interpret findings from research literature. No qualitative study begins without a conceptual framework such as existing literature (Creswell, 2014) and in this study interview questions reflecting some of the findings in existing literature and socioecological perspectives guided the research.

3.2 Data collection procedure

When doing research, the assessment of research quality will be relating to all phases of the research process (Bryman, 2016). However, the quality and transparency of the data collection procedure is key in ensuring a level of trustworthiness (Patton, 2015).

3.2.1 Sampling strategy and recruitment of participants

In this study teachers working during the pandemic are the units of analysis and where the primary focus of data collection is what is happening to these individuals in their setting and how this affects them (Patton, 2015). The sample chosen for this study is a ‘subset’ of the population and reflects the population (all teachers in Norway) as a ‘microcosm’ (Bryman, 2016, p.174).

The focus of this study is on elementary and high school teachers. Therefore, the primary focus of data collection was on what teachers have experienced in the workplace and try to understand how it influenced their perceptions especially relating to their MHWB. The geography of the schools was diverse and spread from the west of Norway, the inland, and the south-east of Norway. This variation in locations was intended as it might help identify

important patterns that were common across this geographical diversity and add heterogeneity to the research sample (Patton, 2015).

This study used a cross-sectional design that gathered data from a sample of cases at a single point in time examining patterns illustrated by the cases in the whole sample (Bryman, 2016). The study aimed at gathering the perceptions of teachers' experiences of the same phenomenon (working during the pandemic from 2020 until 2022) through interviews conducted at the same time. Tjora (2017) states the main rule for units of analysis in qualitative interview studies is that informants are chosen that are for various reasons able to give their views in a reflective manner about the actual topic being researched. Since the interest of the study was to gather an understanding of teachers' experiences of working during the pandemic and their perceptions on whether this may have affected their MHWB, it was important to contact teachers in their close environment where they had experienced this phenomenon (Tjora, 2017).

Despite the chance of this generating too many informants, several schools were contacted simultaneously. It was an approach that was opted for given the pandemic situation at the time of research. This strategy yielded in two teachers being recruited through the elementary school where they worked. Two high school teachers were recruited through snowball sampling. Three teachers were recruited through a Facebook page providing information about digital teaching to teachers, which generated interest and volunteers.

The selected schools in different municipalities were contacted through email and the headmaster of the school was also contacted by phone. It came down to schools' and teachers' wish to participate that determined the participants. Here the researcher provided information about the research process and the headmaster agreed to forward the information letter (see Appendix II) by email to the teachers. Given the surge of Omicron, having a physical meeting to provide information to the teachers at school proved difficult.

All seven teachers were interviewed digitally due to geographical differences and the Corona virus situation. They fitted the characteristics needed for participating in the study. All had teaching experiences from the pandemic. Some worked in education for more than 10 years and could be considered veteran teachers except for one novice teacher who had only worked for five months during the pandemic but had been a student at the beginning of the pandemic

In this research strategic purposive sampling was used as well as snowball sampling in the recruitment process (Bryman, 2016). Snowball sampling enabled the researcher to sample potential participants who had experiences relevant to the research through the interviewees (Bryman, 2016). In strategic purposive sampling the research questions guided the sampling approach in that the units of analysis (teachers) were selected based on criteria and relevance that would allow the research questions to be answered (Bryman, 2016). Teachers sampled for the purpose of research represented ‘typical cases or individuals within subgroups of interest’ (Bryman, 2016, p.409). Teachers were identified and chosen using the following criteria: (i) having worked as a teacher during the pandemic in any subject or for any length of time, (ii) diversity in geographic locations, (iii) diversity in school levels (elementary and high school).

Due to the surge in Omicron, there was some difficulty in recruiting participants, which meant having to adapt and use different sampling strategies. Small sample sizes are appropriate in qualitative work as the aim is to generate detailed, rich data. Kvale and Brinkmann (2015) argue that if the number of participants is too low, the research will not have generated sufficient data for a thorough analysis, but if the number is too large, there will be no time to conduct a proper and thorough analysis. Given the size of the project and the timeframe, seven teachers were recruited and agreed to be interviewed. All interviewees were anonymized and named such as ‘Teacher1,2,3...’ etc. when presenting direct quotations. An overview of the sample is illustrated in Table 2.

Table 2. Teacher characteristics

Participants	School of employment	Years of employment*	Age	Gender	Geographic location
Teacher 1	<i>High school:</i> theoretical sciences	6 y	44	F	West of Norway
Teacher 2	<i>Elementary school</i>	17,5 y	41	F	South – West of Norway
Teacher 3	<i>High school:</i> vocational studies	20 y	61	F	South – East of Norway
Teacher 4	<i>High school:</i> theoretical sciences	5 m	24	F	East of Norway
Teacher 5	<i>Elementary school</i>	38 y	61	F	Inlands
Teacher 6	<i>High school:</i> vocational studies	22 y	63	M	South – East of Norway
Teacher 7	<i>Elementary school</i>	24 y	46	F	Inlands

*Years of employment marked with *y* except for Teacher 4 marked with *m* for months.

3.3 Data collection method: semi-structured interviews

Using semi-structured interviews, the teachers shared their experiences and perceptions about working in unpredictable conditions and how this affected them. The goal as a researcher was to describe teachers' experiences and their perceptions of their own reality with an interpretative approach. In this study, semi-structured interviews were chosen to collect data of the teachers' perceptions and experiences and the meaning these experiences had for them in terms of their MHWB. To understand their interpretation of reality it was appropriate to interview them. Semi-structured interviews were used to retrospectively capture the lived experiences of teachers (Patton, 2015) to gather a deeper understanding of what they have experienced working during the pandemic and exploring in-depth experiences of their perceptions on how this had affected their wellbeing and how they coped with it. Semi-structured interviews were chosen since they are neither an open conversation, nor a closed questionnaire (Kvale & Brinkmann,

2015) which left room for teachers to discuss their experiences in detail and allowed for follow-up questions to better understand their perceptions.

The interview-guide (see Appendix I) included seven open-ended questions that covered subject areas that were reflective of the research problem. It served as a checklist during the interviews of different teachers and helped keep it systematic and comprehensive by figuring out in advance the issues to be explored and allowing individual perspectives and experiences to be encouraged. In addition, follow-up questions or probes that were not included in the guide were asked as the interviewees answered and new topics emerged which were important to the respondents, and this allowed for flexibility. The interview guide was arranged so that every respondent was asked the same questions with essentially the same words and there was room for probing and dealing with a range of emerging topics (Patton, 2015; Bryman, 2016).

Before the interviews were conducted, two pilot interviews were carried out with two teachers (not participants in the main study) to ensure the interview guide was feasible and that the questions were understood. This experience generated an understanding of the importance of probes to make sure the interviews generated detailed data relevant to the research questions and that the topic areas covered by the interviewees guided the sequence of the questions in a more conversational style. It was also useful in learning to use a digital recorder to see if the sound recorded would make for good transcription (Bryman, 2016).

During interviews, participants were guided through the information sheet prior to the interview itself, informing them what the study was about and whether they understood this. Also, the researcher asked for consent to be audio recorded at the start of the interview. Participants were reminded of their rights such as remaining anonymous and withdrawing at any given moment without having to clarify as to why.

Consent was given verbally, and audio recorded in accordance with the Norwegian Centre for Research Data (NSD) form. Some consent forms were signed by those who printed and scanned the document. In accordance with the guidelines of keeping sensitive information safe and confidential, all conversation was recorded by a digital audio recorder that had no internet connection which was placed next to the laptop during the digital face-to-face interviews. This allowed the researcher to focus on the conversation and not be distracted taking notes. The device also served as the audio player for listening to playback of interviews during the transcribing process.

The interviews lasted between 30-60 minutes. The interview guide made sure that no questions were left out unless the participants themselves introduced the topic. The aim was to try and keep the interviews as conversational as possible with open-ended questions engaging the participant in a natural conversation and following up with probes.

At the start of the interview, teachers were asked about their background such as their age, years of work experience and which school they worked in (elementary, middle- or high school). As a concluding question when all topics had been covered it was asked if they had anything else they would like to add. In two interviews this generated interesting views teachers had on their profession.

3.4 Data analysis

Raw data was managed and checked for flaws by listening to the audio recordings to register possible hearing mistakes during the transcribing process (Bryman, 2016). This approach was chosen in this research during data analysis.

The interviews were done on different days, leaving time to listen to the recordings and become familiar with the data and develop ideas and understanding about what participants had

and might raise as a topic in the next interview. Gaining familiarization with the data also allowed for interpreting patterns of meaning across the dataset (Braun & Clarke, 2019; Byrne, 2021). When all interviews were finished, they were transcribed verbatim with every sound, pause and paraphrase made by both participant and interviewer making them as transparent as possible. Despite transcribing being a time-consuming task, it facilitated the development of codes, sub- and key themes, raising awareness of similarities and differences (Bryman, 2016) between the teachers' accounts.

3.4.1 Data analysis: development of themes

In this analytical process the researcher tried to understand the experiences of a person and the phenomenon they experienced in the context of their social environment (Patton, 2015). Since the aim of research was to find out about teachers' experiences, their views and perceptions, reflexive thematic analysis (RTA) was used (Braun & Clarke, 2019, Braun & Clarke, 2020, Byrne, 2021). Thematic analysis conducted with a constructivist framework acknowledges that meaning and experience are interpreted as being socially produced and re-produced reciprocally through subjective and inter-subjective construction (Byrne, 2021). This reflects the constructivist and interpretivist stance on job strain and its potential consequences on MHWB as being socially produced and experienced differently but also similarly amongst teachers given the balance of demands and resources. Since qualitative research is interpretivist, it is up to the researcher to bring the findings into being and make sense of them. This is where different perspectives and theories helped with the analysis.

RTA allows the data analysis to have theoretical flexibility, where concepts from different fields of research could be used to provide a basis for theoretical understanding of the data (Bryman, 2016; Byrne, 2021). Therefore, using RTA and an inductive analytical approach to the collected data allowed for the participants' subjectivity and their personal accounts of

experiences to be acknowledged and respected while at the same time embracing the influence of the researcher's reflexive and theoretically informed interpretations of the data on the research (Byrne, 2021).

Once the interviews were transcribed, segments of the data from each interview were examined and organized into codes, then themes following Braun and Clarke's (2020) six-phase process described in Byrne (2021). Braun and Clarke (2020) propose a six-phase process facilitating the analysis and helping the researcher identify important aspects of the thematic analysis (Byrne, 2021).

The six phases consist of: (i) familiarizing with the data, (ii) generating initial codes, (iii) generating themes, (iv) reviewing potential themes, (v) defining and naming themes, and lastly (vi) producing the report (Byrne, 2021; Braun & Clarke, 2020). The data were reviewed and analyzed several times where sub-themes and codes were reiterated. Several codes were collapsed into one single code sharing a similar underlying concept or data feature representing an overarching narrative that became a sub-theme or a theme.

During data analysis both semantic and latent coding was used. Semantic codes were used inductively, meaning when interpreting meaningful semantic information, the researcher did not examine beyond what the interviewee said (Byrne, 2021). Latent coding was used abductively, meaning that to identify hidden meanings, underlying assumptions or ideas that may inform the semantic content of the data, research literature and theoretical ideas from the conceptual framework were used (Byrne, 2021). This was done because thematic analysis cannot be done in a theoretical vacuum (Braun & Clarke, 2020), at least if the aim is to develop a narrative based on latent coding. An abductive approach means going back and forth between the existing literature, theory, and the data (Tjora, 2017) where the paradigmatic, epistemological, and ontological assumptions aid in understanding the data during the analytical process (Braun & Clarke, 2020). Latent coding enables a more creative and active

role on the part of the researcher where the researcher interprets codes and themes which are relevant to the research questions (Braun & Clarke, 2020; Byrne, 2021). Interpretivism also aided in understanding the perceptions of others' worldview and their experiences during the process of analysis, since the role of the social researcher is to gain access to people's common-sense thinking and interpret their actions and their social world from their point of view, where human behavior is a product of how people interpret the world (Bryman, 2016).

This six-phase process was used to make sense of patterns and meanings across the dataset (all seven interview transcripts). It was then searched for recurrences of these patterns within each transcript and across the transcripts looking for internal homogeneity (coherent patterns) and external heterogeneity (differences between themes) (Patton, 2015). This meant finding codes and data items (illustrative quotations) underlying each theme that shared content meaning and that the differences among themes were easily identified in the analysis. These fragments of coded text later were used to generate sub-themes and core themes that were found within and between the transcripts (Bryman, 2016). Themes were developed using the conceptual framework such as 'increasing demands and expectations in an unpredictable environment' and 'increasing job strain and its consequences for MHWB' as a sensitizing guide. To understand the connection between themes, the conceptual framework and the socioecological perspective helped in presenting a coherent and understandable story.

In the final stage of the analytical phase, several discussions were had with the supervisor where codes and sub-themes were reiterated and where themes were being presented to tell the story from the dataset. Towards the end of the analytical process the themes produced a coherent picture of the dataset in the form of a thematic map (Illustrated in Figure 2.) communicating the narrative of the data that helped answer the research questions (Braun & Clarke, 2020; Byrne, 2021). The map of the connections between themes was made after discussion with the

supervisor, ensuring it informed the narrative of the themes well. This map illustrated the findings that are presented in chapter 4, where every theme and sub-theme is presented.

3.5 Ethical considerations

Prior to conducting the research ethical consideration was given to ensure that the participants were guarded against harm or consequences of participating in research which may have harmful consequences to them (Bryman, 2016). Ethical considerations were part of the whole research process from developing the research proposal, planning, and conducting interviews, analyzing, verifying the findings and in reporting them (Oliver, 2010). All teachers who participated in this study gave their consent to participate in the study out of interest for the topic and desire to share their own experiences and perceptions.

The interview guide in the study posed a question relating to the participants' perception of possible consequences of the pandemic for their MHWB. Some participants may have considered this a sensitive topic which in turn might have generated strong feelings and opinions (Oliver, 2010). However, considering informed consent and ethical guidelines, the information sheet contained information about this topic (Appendix II) in the project description itself, making the participants aware what the study was about beforehand, enabling them to make up their minds about participation (Oliver, 2010; Kvale & Brinkmann, 2015). These principles respect peoples' decision-making abilities (Kvale & Brinkmann, 2015). Despite being asked about a sensitive topic, teachers were assured that their experiences and perceptions were of importance to the study (Oliver, 2010).

Registering the study at NSD before starting research was necessary to ensure that the ethical guidelines were followed in relation to the data protection act. Initially a case study was planned, but since no teachers agreed to be part in the study from the chosen school, the researcher had to re-send the NSD form (see Appendix III). Another request was made to

expand the project to include all schools in Norway, given the unit of analysis was unchanged. After the approval to expand the field of research, ten additional schools were contacted in different parts of Norway.

The information sheet contained information about the study being voluntary, audio recorded, the right of participants to withdraw from the study at any given time without explanation even after consent was given, and their rights to anonymity and confidentiality (Oliver, 2010). This information was repeated to the participants at the beginning of each interview where all participants verbally agreed to these conditions on recorded audio. Enough time was also given to the participants to schedule interviews suiting their time-schedule enabling them to have access to confined space and have confidentiality not just on the researcher's part, but also from the interviewees part as well.

This study does not include the names of any participants, nor a specific geographic location. It does use age, gender and occupation and teachers' have been given pseudonyms to ensure nothing of which was said in the interviews could be traced back to them. All the personal information gathered was kept stored in a secure location that only the researcher had access to. The recordings were kept on a recording device that had no internet connection and was locked in a place separate from where the transcripts were stored, which were stored on an external hard drive and kept secure.

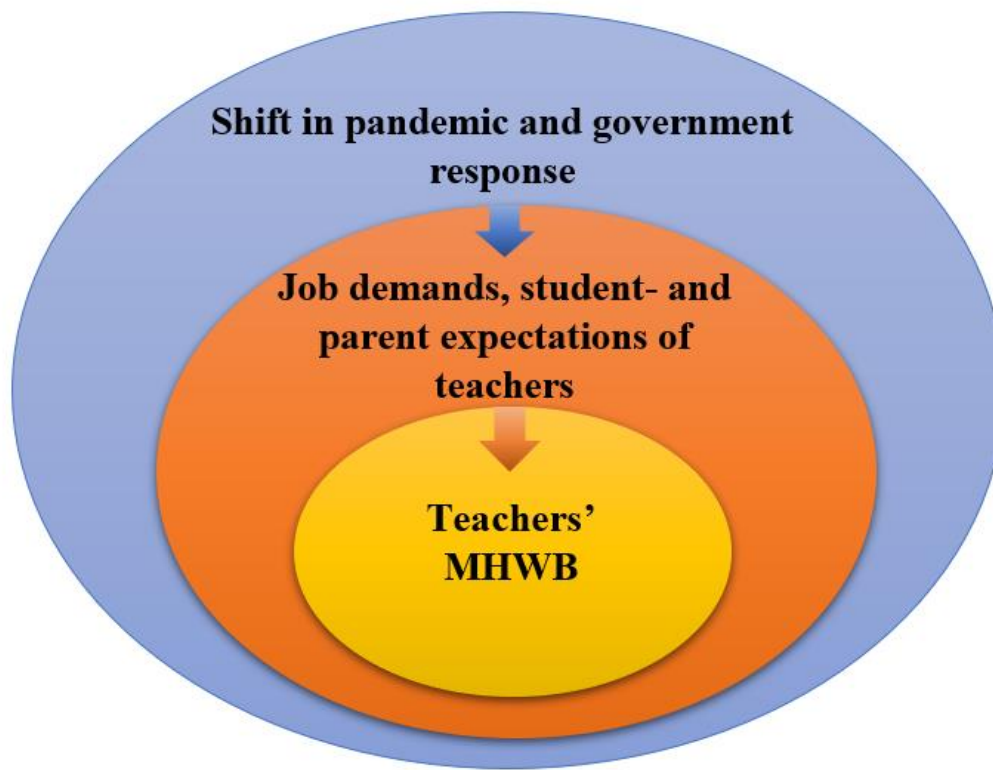
In accordance with the NSD, all collected data and information about the participants will be deleted at the end of the study in June of 2022. This includes the transcripts, the audio recordings, information participation sheets, personal notes and interview guides containing personal information about participants.

4 Findings

Through the process of thematic analysis described in chapter 3, two themes and a set of sub-themes generating contextual meaning were developed to gain an understanding of the teachers' experiences of working during the pandemic. The findings are organized into the following themes: increasing demands and expectations in an unpredictable environment (including two sub-themes) and increasing job strain and its consequences for MHWB (including two sub-themes). These themes aimed to connect and build a coherent narrative of the data reported (Byrne, 2021) that shed light on the research question. The connection between the themes is illustrated in Figure 2.

The headings in this chapter are organized according to the themes that were developed to account for the interviewees' views, which were shaped by semantic codes relating to participants' work situation. The detailed coding framework can be seen in Appendices IV-V which shows categories of meaning exemplified with illustrative codes and organized into sub-themes and themes that interpreted the teachers' experiences.

Figure 2. *Thematic map illustrating relationship between themes.*



4.1 Increasing demands and expectations in an unpredictable environment

The theme 'increasing demands and expectations in an unpredictable environment' is presented first as it narrates the teachers experiences of a changing and challenging work environment and the direct and indirect influences which changed their environment. The theme is used as a way of introducing the second theme which provides a more detailed analysis of how their work situation changed and their perceptions of how it affected their wellbeing.

4.1.1 The direct influences of the unpredictable environment

This sub-theme deals with the pressure teachers felt from the expectations of a changing educational policy context happening simultaneously with schools' increasing expectations of teachers' efforts and professional role during the pandemic. In this study, school policies are understood as guiding the rules that shape the culture of schools influencing school structure, school staff and student behavior. The implementation of the new school curriculum happened during the pandemic, increasing the pressure on teachers to deliver the new subject- public health and life skills- many times over.

Teachers expressed feeling frustrated that more demands and expectations were being added to their professional role and that nothing was being done to help them adjust to these new demands. This could be interpreted as teachers needing more time and resources to plan their teaching and explore and follow the new curriculum and to better deal with the constant changes during the pandemic. It seemed teachers were expected to do more with the same amount of time and resources at their disposal whilst dealing with a pandemic and a change in their work situation they had not previously experienced. The changes in their work environment led to extra work for teachers in comparison to before the pandemic and put pressure on teachers.

The introduction of the new curriculum was perceived as being a list of demands in relation to teachers' responsibilities that kept getting longer which was described as coming 'down to child rearing' (Teacher2). In this sense, the new curriculum was seen as teachers having more responsibility regarding students that stretched beyond that of the teaching context to teachers being expected to care for more than student results but also their in-school behaviors, mental health, and overall wellbeing. This led some teachers to perceive their duties and role as teachers and the expectations that were put on them as conflicting and difficult to

fulfil. Introduction of the new curriculum and the expectations of teachers at a government (educational policy) level, as well as school (organizational) level, seems to have exacerbated the pressure teachers felt about their professional role to upgrade themselves in this new subject. For example, teachers perceived themselves as having to go back to school and take more subjects to comply with the demands of the new curriculum, something that in the current circumstances was impossible to do.

In addition, it seems that not being involved in how changes in schools were implemented, such as abrupt changes in the traffic light model, contributed to teachers' stress. This meant that changes were directly imposed by external authorities, often with little warning, which had significant implications for teachers' planning and teaching and reduced their lack of control over their work. Responding to such changes at short notice, was in itself stressful, in part because it led to more work since teachers had to deal with both physical and digital teaching at the same time as dealing with Covid measures. For teachers, one consequence of this was that they perceived that teaching and learning issues tended to not get the attention they deserved and needed. The following quotation expresses the views of teachers lacking the opportunity to have a say in the constant changes in their work environment made by the government:

“It has become too much of not taking pedagogical considerations [during traffic light models] into account. When you don't make pedagogical considerations then you end up stressing the teachers because we teachers feel responsibility for the pedagogical.”

-Teacher1

Teachers expressed that despite student results being important it was difficult to manage the competing expectations and demands to follow the new curriculum, give students support and deal with more administrative tasks in a constantly changing environment. For instance,

they found it difficult to adapt to making lesson plans whilst at the same time having to adjust to most of their plans changing rapidly. Digitalized teaching, particularly double track teaching, where half the class was at home and half the class in school, was perceived as being particularly challenging and leading to excessive workloads and extra student assessment situations. This could mean that since teachers had to adjust to both physical and digital teaching whilst constantly experiencing changes in the traffic light models and student absenteeism due to Covid infections, the struggle in managing demands and expectations was perceived to have affected the quality of teaching. Double-track teaching was perceived by teachers as necessitating having two teaching plans, where pupils were taught in the conventional way during face-to-face physical classes, whilst digitalized teaching seems to have resulted in requiring more written assignments from students. This resulted in extra workloads for teachers, such as having to plan for both physical and digital teaching whilst getting through the course material and additionally mark assignments handed in by students after class. This is illustrated in the following quotation:

“I teach those [pupils] that I have at school and then I teach those in digital class by giving them assignments to do. That becomes an extra workload. It just keeps filling up along the way [extra work].” - Teacher2

The lack of support and protection to manage a challenging work situation when the government chose not to prioritize teachers for vaccinations meant that teachers perceived their work environment as unsafe, which itself was a source of concern. This led to teachers’ perceiving themselves exposed in an unpredictable environment, not knowing if they would be infected and how being unvaccinated would affect their health, as well as that of their families and friends. This was something that tended to generate not only fear of contracting an infection at work amongst teachers, but also more directly affecting their wellbeing. The following quotation illustrates teachers’ concerns for their health and safety:

“The last government chose not to prioritize teacher vaccinations. ...In terms of teacher’s rights according to the [Norwegian] Work Environment Act of having a safe and health promoting work environment. ... I can honestly say that it has been two years of our work environment being experienced as neither safe nor health promoting!” -Teacher3

In addition to dealing with increased demands and expectations brought on by the new curriculum and the changes in their work environment, such as the transition to digitalized teaching, teachers also dealt with Covid-related responsibilities placed on them by the government which added to teachers’ workload and pressure. This led to teachers experiencing that in addition to teaching there was more that had ‘befallen on the teaching profession that wasn’t there before’ (Teacher2) because of Covid-19. This could, for instance, be that teachers had to concern themselves with making sure students followed Covid-19 measures as well as having to constantly change their teaching plans due to student and teacher absenteeism. It seemed that teachers’ responsibilities expanded beyond following up on students’ learning and progress and led to more responsibilities with administrative work relating to Covid. For instance, such as making sure pupils kept their distance, keeping track of potential Covid-19 infections and close contacts, providing necessary information during traffic light model changes, providing test kits and being test-queue guards. Teachers also expressed they felt schools lacked the necessary resources for the constant changes in the traffic light models and felt it was difficult to adapt to the Covid-19 measures. Resources mentioned were, for instance, receiving support to share responsibilities and workload, having more time to adapt to changes, being provided with information, having more space to comply with Covid-19 measures and access to teaching material, such as textbooks, which was perceived to be lacking since the introduction of the new curriculum. This may have resulted in leaving schools vulnerable in an unpredictable situation where too much responsibility was being put on schools and, in particular, teachers, to organize the sudden changes implemented by the government whilst still

maintaining their primary role in teaching and learning. Switching from physical teaching to digital at short notice was perceived to be particularly difficult and an unrealistic expectation given the reality of resources in schools, as the following quotation illustrates:

“We can’t readapt to everything [traffic light model]. ... You can’t just switch which days we have physical and digital school because we have no chance in carrying that out if the change is sudden. We don’t have enough rooms, for instance!” -Teacher1

4.1.2 Indirect influences of the unpredictable environment

The changes in teachers’ work situation because of external mandates and the way in which this resulted in extra workloads for teachers, also changed the relationship between teachers and students alongside the expectations parents had of teachers’ responsibilities towards their students. Not only did teachers have to create teaching plans for both physical and digital classes and have extra assignments that required marking, but they also had to be responsible for Covid-19 measures being followed, offer more support to students, and create more student assessment situations. The growing list of responsibilities created an expanding set of expectations such that teachers perceived their students and parents saw them as not only caring for the students but also as being constantly available for their students’ needs. These expectations added to the demands imposed by government and school management and thus contributed to job strain and a sense that they were struggling to endure. Perceptions of these expectations created a strong sense of obligation towards their students, particularly those who were at home, as the following quotation illustrates:

“You feel obligated [as a teacher] to commit [online] and answer [messages from students] and that’s just another extra thing to do.” -Teacher4

Teachers perceived that the expectations of the teaching role had expanded to exceed teaching, with parents relying on teachers to handle more than just students’ learning. This

included parents expecting teachers to offer more support to students at home to handle the transition to online teaching, but also in matters outside the classroom regarding students' health and wellbeing, adding to the pressure put on teachers and which they themselves experienced.

For example, one teacher said:

“And that is just an illustration of the parents’ trusting that we [teachers] will handle it [situations with pupils unrelated to teaching]. We [teachers] take care of things.”

- Teacher5

During the interviews, all teachers expressed the need for resources and support and the way in which they often lacked both, especially to help manage the constant changes and in dealing with pressure in their work situation. This was expressed by teachers working in both elementary- and high school. Teachers also perceived that their everyday work situation and the way in which it was often unpredictable was not appreciated by their school management, who seemingly lacked understanding and gave little or no additional support. The teachers' perceptions conveyed a view that the pandemic and shift in the demands on them, had meant that they felt somewhat distanced from the school management, and that somehow their working lives were not taken seriously by management. This extended to them feeling increasingly unappreciated:

“You can say that students have behaved well according to measures [yellow level]. That is what we have heard from [school] management who sit in their closed offices and put on a face mask the second they peer their noses outside the office door or are working from home. While we [teachers] ... have fifty or sixty close contacts in one day. I don't think that is showing an understanding of what we [teachers] have been dealing with.”

-Teacher3

Covid-19 measures seemed to not only have caused changes in teachers' work demands but also impacted how teachers felt about their work situation by making schools' communication climate challenging. Teachers felt increasingly isolated from the wider school community and unable to participate in the life of the school as they had previously been able to do on an everyday basis. This was due to being assigned to a specific cohort where they could only be in close contact with those colleagues they worked closely with within their classes. This affected the relationships between teachers and other teachers as well as between teachers and school management since these arrangements reduced the ease and frequency of communication between teachers across cohorts, but also between teachers and school management. One consequence of this was that teachers perceived they were outside the decision-making process. Feeling isolated from the wider school community and not being able to participate in the overall school decision-making processes contributed to teachers feeling left out. In turn, this further contributed to them experiencing their work situation as more unpredictable as well as feeling alienated from their school's common goals and a shared sense of community. The following quotation illustrates this:

“This is the second year [of pandemic] and now we see it has crumbled our foundation. What used to be our community where we worked and planned all sorts of social gatherings, teaching plans and the new curriculum... It has been pulverized. People are sort of wandering about looking for our school and not recognizing themselves in that community.” -Teacher5

Teachers also expressed feeling worried about the Covid situation affecting student socializing and performance with many students failing to cooperate across cohorts and being absent due to Covid. This meant that teachers were worrying about not only their students' school performance but also their study habits and social lives and wellbeing in and beyond school. Teachers perceived that the externally imposed changes in the way the schools were run

and organized had change the social dynamics between teachers and pupils as well as between pupils. Indirectly this added to pressure on teachers to try to keep things going in difficult circumstances, and for which they felt some responsibility towards their students.

As previously discussed, the change from physical teaching to digital teaching happened suddenly without any time to adjust to the abrupt change, which was considered a concern by the teachers in the study. It gave rise to increased pressure on teachers not just due to an increase in workload of having to adapt their teaching quickly, but also because it required them to tailor it to their students' needs. This led to teachers feeling unprepared to deal with the transition to digital teaching. The following quotation illustrates this:

“We [teachers] weren't prepared well enough for this type of education [digital]. It takes time with all these technical things.” - Teacher6

While teachers talked about the technical aspect of getting used to using digital formats, they were also concerned with pedagogical dimensions of this change, for example in relation to how their course material could be adapted appropriately to digital teaching when time was very limited. This was potentially more so amongst teachers working in high school and vocational studies, where the transition was not only from physical to digital classes, but also from a practical to a more theoretical approach, which made making the transition especially challenging.

Student absence also seemed to have challenged the teacher-student relationship. Student absenteeism led to teachers having to create extra student assessment situations, resulting in excessive workloads in addition to keeping up with the course material. This meant that absences were much higher than would normally be the case, creating discontinuity in the teaching process. It also seemed to teachers that students also struggled to adjust to the constant changes being made in the traffic light models, leaving students unable to comply with the

assignments set and demands from teachers, resulting in extra student assessments and adding to teachers' job strain. This meant that teachers were involved in a lot more follow-up work with students and potential sources of conflict if work had not been completed, as the following quotation illustrates:

“We [teachers] have to go and chase students. Already in the first two weeks before the end of the first term I had fourteen individual assessments to catch up on.” -Teacher3

4.2 Increasing job strain and its consequences for MHWB

The second theme provides a more detailed analysis of how teachers perceived the changes in their work situation and how these affected their MHWB.

4.2.1 The effect on teachers' MHWB

The change in teachers' work situation described above during the pandemic altered the context of teachers' working lives in ways that increased pressures and uncertainties about their day to day lives both within and beyond school.

Teachers perceived their work environment as unpredictable, which itself was stressful, especially when it resulted in extra workloads. In some cases, it was evident that these demands and expectations exceeded teachers' own abilities to manage given the constant changes and added tasks. For example, one teacher said:

“For me, the unpredictability [of working during the pandemic] and the extra work has been stressful.” -Teacher1

In addition to an increased workload and responsibilities, teachers also had to deal with the potential consequences of being Covid infected at work. This seems to have been perceived as especially frightening during the beginning of the pandemic when most teachers were unvaccinated and when the consequences of infection were not fully understood. Thus, the work

environment itself generated a fear of infection and this too affected their MHWB. One teacher said, for example:

“The fear of being [Covid-19] infected. I have felt that...I was terrified! I wasn’t vaccinated. Now I’m going to die and now it’s going to affect me.” -Teacher5

Because of the additional workload demands, teachers also expressed feeling exhausted and that they and their colleagues were ‘barely holding on at this point’ (Teacher2). This was indicative of their work environment causing considerable job strain to the point where their ability to cope had been constantly stretched in a way that influenced their MHWB. A way of understanding this is that the high demands and expectations exceeded teachers’ abilities to manage the demands placed on them.

Some teachers also perceived their MHWB being directly affected having worked during the pandemic in an unpredictable work situation and experiencing high demands and expectations over a sustained period of time with little respite. Teachers perceived that such sustained pressures would inevitably have consequences for their MHWB, as the following quotation illustrates:

“It [constant demands] becomes a wear and tear on your mental health and an energy drainage in relation to the teaching profession.” - Teacher3

During the interviews, some teachers also explained how they experienced feeling lonely at work when they were assigned to cohorts and unable to socialize across cohorts. This social isolation was in contrast to how pre-pandemic they experienced everyday school life, during which they enjoyed socializing with their colleagues at work, which was perceived to add to their feelings of happiness at work and their sense of collegiality. Teachers felt as if they had become isolated because of the cohorts where they had no insight into what their colleagues were doing and with limited opportunities to share the ups and downs of teaching in new

circumstances and draw on established sources of support. This kind of social isolation was perceived as affecting their wellbeing. The teachers perceived they lacked the collegial network and flows of communication they used to have and the social support they got from each other to feel were an important part that made them feel part of the school community. The following quotation illustrates this:

“We became small class islands [cohorts] where no one knew what the other ones were doing... It felt dreadful because we had few common meetings and that on its own affected our wellbeing.” -Teacher7

The feeling of loneliness was also experienced outside of work due to Covid measures leaving teachers unable to meet with their friends and family and perceiving it as a sacrifice they had to make for society. Despite being socially isolated from colleagues at work, and friends and family outside work, teachers experienced having many close contacts with their pupils in school. Teachers perceived it as difficult to accept that they had to follow Covid-19 measures affecting them differently at work and during leisure time. Teachers experienced Covid-19 measures as being a set of different rules for when teachers were at work and had many close contacts among pupils, and when they were off work and unable to socialize with family and friends. This limited teachers' opportunities to make up for social isolation they experienced in school, outside of the working context, since Covid-19 measures encroached on their personal time and kept them in social isolation outside of school as well. This itself may be understood as putting a strain on teachers' MHWB where teachers may have felt they lacked social support to refresh themselves during time beyond school. It may have affected teachers' ability to balance demands of school and family putting additional pressure on teachers. This is reflected in the following quotation:

“It’s been hurtful and emotionally heavy having to avoid meeting our parents while at the same time having many contacts [at work]. I think it’s a sacrifice that teachers have made for having to meet so many at work.” -Teacher1

4.2.2 The ripple-out effect of increased job strain

Some teachers perceived their physical and mental health had declined during the pandemic because of job strain. Perceptions of their declining health were related to an ongoing feeling of tiredness. This had knock on effects for teachers’ own leisure time, which was reduced because more and more of their ‘own time’ beyond school was used to deal with sudden changes to school requirements alongside excessive work demands leading to longer working hours. Inevitably, this affected teachers’ time to relax and refresh themselves. This imbalance between work and leisure left them with little free time to tend to their own needs. In these circumstances, the interplay between physical and mental health was evident, often worsening by poor sleep and diminishing motivation, as the following quotation illustrates:

“There is no doubt that I am much more tired now. I am so tired when I get home from work, I feel I need to relax more. I don’t work out as much anymore and my weight has increased. I have troubles sleeping and when I do sleep, I sleep poorly and that in return affects my wellbeing. That and walking around feeling exhausted over longer periods of time affects my wellbeing and my motivation.” -Teacher3

During interviews, teachers expressed having insufficient time to adapt to changes being made, often having to make changes in their teaching plans late in the weekends for Monday mornings. These kinds of changes made it especially difficult for teachers to balance life and work during the weekdays over a sustained period, but also having to sacrifice their weekends because they had no control over their work situation. The impact was especially felt in terms of not getting enough time to rest. This is reflected in the following quotation:

“That was the second time we switched from Sunday late in the evening for Monday where you need a new teaching plan. That means... having to change all your teaching plans after six o’clock on a Sunday for Monday.” -Teacher1

Teachers also perceived that there was a lack of parental support, and this was seen as putting additional pressure on teachers. Since many students lacked the necessary resources to manage at-home schooling, parents expected teachers to take responsibility for meeting this need and to offer more support to students. This further exacerbated teachers’ workload leaving teachers competing with constant demands and expectations during the pandemic. The following quotation reflects this: *“Many students do not receive help at home. ... And then you need to step up and help.” -Teacher6*

When asked how teachers coped with changes in their work demands, some teachers described how they found themselves adapting to change. It seems that the ability to adapt to constant change was perceived as important to teachers. This could be interpreted as teachers perceiving that using coping strategies to help them maintain their MHWB during the pandemic when dealing with high job demands was necessary to deal with pressure. This is exemplified in the following quotation:

“Lots of decisions need to be made during the day regardless of if you have planned well and still having that ability to manage to adapt to change often determines whether a day is successful or not.” -Teacher7

Teachers also expressed the need to find ways of coping and relaxing when at home, where work seems to have invaded their personal time and expanded their working hours. This could be understood as teachers’ perceiving the need to find ways in coping by trying to separate work from leisure time by distancing themselves from the constant demands of, for instance,

answering messages from students, parents, and management, to maintain their MHWB. This experience is reflected in the following quotation:

“I spent hours walking in the woods, listening to music, and walking my dog. Taking small trips and finding a balance between the physical and the psychological loads was important to me.” -Teacher6

Lacking information and work training from management in transition to digital teaching was also mentioned by some teachers, and how they found ways to cope with this. For example, teachers mentioned using alternative supportive resources to manage teaching, such as accessing information about digital teaching on Facebook. This could be interpreted as teachers lacking the support and resources needed to comply with the work situation, such as school management offering training and information to adjust to the changes of new learning platforms. This in turn, could be understood as putting more pressure on teachers since finding ways to manage their work situation whilst lacking resources to do so, may have taken more time and effort.

Despite not being asked directly if they had contemplated leaving their profession, some teachers expressed their views on considering leaving the profession or possible reasons as to why they would leave teaching. When asked if working during the pandemic affected their views of the teaching profession, some teachers expressed the desire or contemplation to leave the profession because it had become an unpredictable work environment. During the interviews, some teachers perceived the pandemic exacerbating drawbacks in the teaching profession making teachers reevaluate their choice of profession. This illustrates how teachers perceived that teaching was already a stressful profession, but this had become more so during the pandemic. In particular, they experienced their work environment as influencing their MHWB as they struggled to manage job strain in an unpredictable environment, and this had led them to contemplate leaving. The following quotation reflects this:

“The teaching profession has some fundamental flaws which the pandemic may have exacerbated for certain teachers when you hear teachers saying that the pandemic has made them reevaluate their profession.” -Teacher4

Constant changes along with added workload and the feeling of not being appreciated contributed to teachers’ shifting views of their own profession and work engagement. During the interviews, it became apparent that one teacher had chosen to leave her profession citing lack of teamwork, flexibility in work hours, and job demands as causes for leaving. Teachers perceived that they were unappreciated and that there had been no recognition for the extra work they were putting in over a sustained period. This led to some teachers contemplating leaving the profession. This is reflected in the following quotation:

“The thought has struck me [of leaving the profession]. I have thought about it. ...More along the lines of not being treated with respect [reason to leave]. It struck me that I don’t want to work under these [unpredictable] conditions.” -Teacher1

5 Discussion

5.1 How increasing demands and expectations in an unpredictable environment influence job strain and affect teacher MHWB

This project set out to explore Norwegian teachers' experiences and perceptions of working during the pandemic. In particular, the study sought to understand how teachers' work situation changed during the pandemic, especially with regard to work demands and expectations, and what consequences this had for their own mental health and wellbeing. Using a qualitative methodology facilitated a more detailed understanding of how the changing context destabilized their everyday professional life in a way that has added depth to previous quantitative research. This chapter discusses the findings in relation to two issues: (i) experiencing change and continuity during the pandemic and (ii) understanding the impact on teachers lives and MHWB.

5.1.1 Experiencing change and continuity during the pandemic

The findings shed light on how the planned introduction of a new curriculum coinciding with the outbreak of the pandemic contributed to creating an unpredictable context with escalating demands. While changes over time characterized this period, teachers were still required to carry on teaching and delivering the curriculum just as before. Given that it is well-established that teaching is a stressful occupation in 'normal' circumstances (Kyriacou, 2001), these changes were experienced as magnifying the everyday stresses and strains of teaching in some specific ways. For example, it was apparent that expectations towards teachers' work responsibilities were multiplying and becoming more complex, expanding beyond providing knowledge and skills to students according to established practices. Against a background of uncertainty – be it in relation to the spread of infection and their own personal situation in

relation to that, as well as in relation to changes at short notice at the school level in relation to the traffic-light system – teachers were expected to carry on teaching the curriculum, implementing the new curriculum alongside supporting students as if things were ‘normal’. Infection control measures at the school level were designed to keep teachers and staff safe and healthy. However, the unintended consequence of the measures was that teachers felt isolated from their colleagues and students. With regard to the former, their usual informal networks of support from their peers were disrupted increasing their perception that they were – more or less – on their own to adapt and deliver. In terms of being isolated from students, this also complicated the teaching process in multiple ways. This included the challenges of using digital technology, at times alongside face-to-face teaching, setting, and monitoring additional assessments and trying to maintain good supportive relations.

The socioecological model was used to understand how the wider global health environment of COVID-19 triggered political and health discussions and actions at a national level, which in turn shaped educational policy and the responses of schools. These external processes had both direct and indirect influences on teachers, students, and the whole school climate, which over time generated considerable uncertainty. This meant that it was difficult for teachers to predict what might happen from one day to the next, because changes were introduced often at short notice. Teachers’ perceptions of working in this form of unpredictable context centered on the idea of lacking control over their work situation and their workload. This increased the pressure on teachers and how much of the pandemic was experienced in terms of always feeling tired. This is in line with the findings of Ferdig et al.’s (2020) study of teachers in the USA, which also found that the changes in teachers’ work situation resulted in pressure on teachers. To return to the socioecological model, experiencing low control and high work demands in working conditions are risk factors for poor health, including MHWB (Bird & Whitehead, 2012) and affect employee turnover (Wilkinson & Pickett, 2019). This suggests that national

responses to the pandemic directly and indirectly created the conditions for considerable job strain while at the same time eroding possible support mechanisms.

The socioecological model also gives emphasis to organizational factors. It has been well-documented prior to the pandemic that organizational context is a major influence on stress and satisfaction amongst teachers, especially where high demands, low control, and limited social support are present (Oullette et al., 2018). This implies that the organizational health of schools also declined during the pandemic. A key feature of the declining organizational health of schools was the weakening of networks of communication between school managers and teachers, but also between the government and the educational community during the pandemic. This supports earlier reports on past pandemics where communication and clarification of guidelines were important in collaborations between health officials and community leaders (Fotheringham et al., 2022). In the current study, poor communication contributed to teachers' feelings of isolation during the pandemic. This, alongside a perceived lack of supportive resources and camaraderie added to teachers sense of being left on their own to cope. These findings resemble those of Chen et al. (2020), who in a quantitative study in China found that increased pressure led to work dissatisfaction among teachers because of the lack of support to aid in coping during Covid-19. Fotheringham et al. (2022) found that during Covid-19 schools needed strategies for the use of electronic learning as well as having teacher support and academic instructions. This highlights the relevance of the organizational context in supporting teachers during the pandemic and highlights some issues for how schools might be able to better prepare for future pandemics.

The socioecological model can also help in shedding light on the relevance of the national educational policy context and the emphasis on academic performance. A primary concern of teachers in this study was that students' school performance would be adversely affected by the constant changes in traffic light models and the way this shaped the teachers' practices,

including their assessment practices. These findings resemble those of another Norwegian study, which found that the sudden shift in teachers' work environment made teachers' assessment practices challenging because they struggled to follow up on pupils in need of learning assistance, whilst pupils felt they lacked teacher feedback during the pandemic (Sandvik et al., 2020).

5.1.2 Understanding the impact on teachers' lives and their MHWB

Teachers described the changes in their work environment and the noticeable job strain. The concept of job strain was useful to help explain the pathway from externally imposed changes to impact on teachers MHWB. Rising demands and expectations exerted an ongoing pressure on teachers, which they could feel at an individual level, but which they also perceived to have consequences for their MHWB, their wider lives, which together contributed to altering their views of their future place in the teaching profession. This is in line with the findings of Kim and Ashbury's (2020) qualitative study of teachers in England during the first lockdown, where constant changes in teachers' work were for some a cause of sadness and frustration. The findings from the current study also shed light on the teachers' limited access to resources, such as social support, that might have helped them better adjust to their situation. Some teachers were better able to develop and use coping strategies to help them manage an unpredictable work environment. These findings support the quantitative research of Kraft et al. (2021) with teachers in the USA, who found that school efforts to support teachers during the pandemic was important in maintaining a sense of success among teachers.

While the day-to-day experience of working in this work context was characterized by unpredictability and ongoing pressure for teachers, this study's findings revealed that this gave rise to some deeper potentially longer-term consequences wherein some teachers expressed the desire to leave the profession. This finding parallels the findings from the Norwegian Respons

analyse survey (Respons analyse, 2020; Korsmo; 2021). If teachers feel stressed and struggle with their MHWB, as they did in this study, this creates the conditions for symptoms of burnout such as exhaustion to be experienced. Given the length of time the pandemic restrictions were experienced, there is a likelihood that not only will teachers' exhaustion have an impact on their ability to teach and therefore their students, but also create a negative cycle that may affect their co-workers and the entire school community (Kokkinos et al., 2005). Evidence indicates that teachers with higher levels of perceived wellbeing reported higher levels of self-efficacy and job satisfaction (Viac & Fraser, 2020). The findings from the current study suggest that during the pandemic teachers' MHWB was eroded, which for some teachers gave rise to diminishing job satisfaction and reconsideration of their future professional life, an issue that has been documented previously (Conley & You, 2009).

Over time, teachers felt unvalued in their organizational environment, in part because managers were perceived as having little or no understanding of their working conditions. Teachers' sense of feeling unsupported was magnified by a sense of inequality in that school managers were able to work from their offices and from home whilst teachers worked in classrooms. This indicates a shift in school-based social norms from what teachers had experienced previously. This study's findings also highlight the relevance of Zhou and Yao's (2020) research, which concluded that teachers' abilities to manage or develop acute stress symptoms was mediated by their sense of control and social support within the organization. Teachers also perceived cohorts and Covid-19 measures affecting the school community like that of findings by Chen et al. (2020). The current study is consistent with previous research both during and outside of the pandemic that the organizational context of schools is relevant to understanding how teachers do or do not cope with the pressures in their everyday lives (Devonport, 2011; Oullette, 2018).

To some degree, teaching has been a profession which allows scope for teachers to enact their agency. However, one of the major features of teaching through the pandemic was that this was reduced considerably. The JD-R model can help shed light on how an excessive workload and the responsibilities brought on by Covid-19 measures, which lengthened their working hours while leaving them with little to no time to plan their teaching, creates excessive demands and lack of control. A lack of control was mediated through several mechanisms relating to perceiving they had no say in the decision-making process of school closures, weak communication, and ever-expanding workload. According to the JD-R model, work engagement and burnout are closely related, where burnout is described as a reaction to chronic occupational stress characterized by feelings of, for instance, exhaustion and feeling unappreciated (Bakker & Demerouti, 2007). Although the findings of this study cannot account for teacher burnout, some teachers' experiences resemble the descriptions of the JD-R model of occupational stress and high demands which lead to job strain and feeling undervalued as an employee. Added to this was the general sense of teachers feeling unprotected during a vulnerable period, especially prior to the vaccine roll-out. Alongside these demands, there was thus a general background of fear in the workplace related to COVID-19, which also had ripple-out effects to them meeting family and friends. This coincides with the research of Sormunen et al. (2022) and Kraft et al. (2020) where the sudden shift in teachers' work environment whilst having to tend to their own personal life, responsibilities, and obligations at home, seemed to have taken a toll on the MHWB of many teachers worldwide. The findings are also consistent with those of Pressley (2021), which found that anxieties surrounding the pandemic along with a lack of support from managers were important predictors of teacher burnout.

Feeling pressured and stressed in the school environment during the pandemic reflected a mixture of teachers' feelings and perceptions alongside concrete tangible problems they had to overcome. This list included: a lack of access to resources such as their agency and control over

work, time to adapt to changes, being unvaccinated, lacking rooms for teaching, lacking proper teaching material because of the new curriculum, lack of support for the changes in their working conditions, including support to learn how to best use digital teaching, and sharing responsibilities with other teachers. All these experiences created job strain and increased the vulnerability of their personal MHWB. This also had an impact on their wider lives, which meant that they had few opportunities to refresh themselves and socialize as a way of off-loading some of the pressure. Kraft et al. (2020) found that veteran teachers are more likely to report discomfort in using remote teaching technology. The findings of this study contradict this since all teachers, regardless of working experience, reported struggling with the online shift.

The socioecological model together with the JD-R model has been used to explain why the pandemic was experienced so adversely by the teachers in this study. Using the models highlights the social environment as a key dimension in understanding teachers' ability to cope. In particular, if the social context changes – as it did during the pandemic – then teachers will experience shifts in their job control, predictability, and social support (Marmot, 2015). In turn, this influences their ability to cope. Although Lazarus and Folkman (1984) and Fink (2016) conceptualize stress as being interpreted differently among individuals, the findings from this study found the same stressors as challenging to their MHWB.

Keyes (2002) argues that mental health is a syndrome of SWB where mental health is perceived and evaluated through an individual's evaluation of own functioning, quality of life, and their ability to cope with stressors and life challenges. Having positive feelings and functioning in life and flourishing through the ability to shape one's own environment to satisfy one's needs, whilst having a degree of control, such as control in the work situation, is reflective of a person's SWB and outcome of mental health (Keyes, 2002; Keyes, 2005). The findings from this study suggest that working during the pandemic diminished teachers' capacity to feel

they were flourishing. This reflects the research on teachers' working conditions where stress may lead to lower work-satisfaction and work-related wellbeing (OECD,2020).

The findings from this study also indicate the importance of having collegial support, highlighting the importance of the social dimension of MHWB. Teachers expressed using emotion-focused coping strategies to manage the stress of remote teaching such as being physically active or trying to manage adjusting to changes. Problem-focused strategies were also used such as finding source material themselves online to aid with teaching or seeking support from colleagues (Oullette et al., 2018; Zhou & Yao, 2020; Baka, 2015).

5.2 The study's strengths and limitations

This study used a cross-sectional design and presented Norwegian teachers' experiences during a particular point in time, from the beginning to the end of the pandemic. The data was collected during two months towards the end of national Covid-19 measures in schools. There were differences across schools (high school and elementary school) during this period, because school closures were controlled by municipalities. This was a strength in the study in that the sample included varying experiences of teachers in different locations and under different Covid-19 measures during the pandemic. This yielded similar perceptions of the changes in teachers' working conditions and revealed the impact their environment had on their MHWB.

Considering the study covered two years of experiences working during the pandemic, teachers may have found it difficult to recall their feelings about their MHWB from the different high and low points of the pandemic and may therefore have expressed their lowest most stressful points during the interviews. However, given that teachers chose to share their experiences the way they did about the pandemic adds strength to the study since these were their perceptions of working during the pandemic, and perspectives on events which were important to them.

The data was analyzed by the researcher in line with RTA as outlined by Byrne (2021) and Braun and Clarke (2020). Iterative discussions were had with the supervisor during the analysis process to ensure refining the analysis. Using RTA was useful as a novice researcher, where following the six-steps of RTA made the data analysis easier in terms of following a systematic process. Confirmability concerns itself with the contents of the data and the interpretations of these not just being a fragment of a researcher's imagination but calls for bridging findings and interpretations to the data in a transparent way (Patton, 2015). This analytical process added to the credibility of the findings where it started by being strongly anchored in the data (coding) and then gradually building up the analysis through an interpretivist approach into broader themes. Dependability focuses on transparency and the research process being logical and traceable (Patton, 2015). Lincoln and Guba's (1985) proposed "the audit trail" (1985, p. 319) where complete records are kept of all phases of the research to ensure that proper procedures have been followed and to which degree theoretical inferences may be justified (Bryman, 2016). A transparent and systematic account of the research process was provided which shows that the research yielded rich data, strengthening the study. Furthermore, the process by which the analysis was conducted was supported by the tables in the appendix which illustrated how codes were built up into sub-themes and themes.

Qualitative research was used to ensure a detailed understanding of the explored phenomenon (Creswell, 2014). The detailed information this qualitative study gathered could not have been accessed through a quantitative research design. This is because qualitative research allowed teachers to share detailed accounts of their own perceptions, which allowed the researcher to gain insight into- and develop a better understanding of their experiences. The use of a semi-structured interview guide was also important in generating a structure of specific questions, while leaving room to explore further with probes if the participants raised topics that could provide more information (Kvale & Brinkmann, 2015). Given that interviews were

done by a novice researcher, this could be considered a weakness as it may have limited the process of gathering in-depth data during the interviews, such as not using enough probes. Nevertheless, the researcher did manage to accomplish collecting rich information through interviews that informed the analysis and that was reported in the findings.

Being continually alert to personal biases through a process of reflexivity, throughout the research process, assisted in producing trustworthy interpretations of the research findings (Patton, 2015; Bryman, 2016). Having worked as a teacher, it was important to ensure that personal insights did not overly influence the research process, particularly during analysis. This is where discussions with the supervisor were had to ensure personal detachment. Having experience as a teacher may also be considered a strength in terms of giving the researcher insights about what teachers were talking about. In this study the findings reflected the teachers' experiences and perceptions, and not the researcher's own theoretical inclinations or personal values. The findings presented were grounded in the data which aided in increasing credibility and legitimacy of the qualitative approach (Patton, 2015). Being transparent as a researcher and aware of one's role in the research process and how research is conducted, ethically, but also how findings are presented (Lincoln & Guba, 1985) is important. Using a qualitative approach gave credibility to the study by revealing what it was really like for teachers, from their point of view, during the two years of the pandemic.

Transferability deals with the inquirer's responsibility to provide the reader with enough in-depth information about the case so that the reader may apply those findings to other contexts and cases (Patton, 2015, Bryman, 2016). Since this was a study of seven teachers' experiences, the findings could only be understood in the contextual uniqueness of their social world and can therefore not be open to generalization but may be understood and generalized through the theoretical approach of the study (Bryman, 2016), or provide suggestions for similar experiences of other teachers.

The sample size of this study was small and future research including a larger sample size of teachers from all schools may broaden the perspective of the topic of this study. If more teachers were interviewed and more diversity included in the sample, it may have revealed additional, different perspectives which were more nuanced to those found in this study. In addition, including school managers might also have added new perspectives that gave some nuance and depth to some of the findings in relation to gaining understanding of how they perceived their roles and responsibilities. Also, gathering their perspectives of the changes in their work situation and how they managed these. It should also aim in gathering more differences between genders, seeing as this study had six females and one male.

5.3 Implications for public health policy and practice

In this study, teachers viewed their MHWB as having been affected by working during the pandemic regardless of whether they worked in high school or elementary school. In particular, their working context became characterized by unpredictability and expanding workload demands, which gave rise to them feeling unprotected and afraid, leading to negative perceptions of their own profession, worries about student wellbeing, multiple roles, and meeting the demands of the new curriculum. Job resources that were expressed they lacked were social support, control and predictability, safety at work and material resources to aid in coping.

As explained by the JD-R model, all jobs have demands, but also resources such as varying degrees of social support and control. Therefore, from a public health perspective, in order to try to sustain teachers' MHWB during the pandemic, policies to increase teachers' control over their workflow and situation more generally would have been valuable. In particular, proactively offering social support could have been beneficial to maintain teachers' MHWB during the pandemic. More specifically, better communication within the school and between

schools and the government, could have at least kept teachers informed and perhaps have contributed towards a better team approach to dealing with the pandemic. Direct support for digital teaching was a clear need exposed during the pandemic. The flow of additional resources to provide this could have reduced teachers' work demands, as well as their frustration and anxiety. This study's findings may inform future public health interventions in schools not only in Norway, but elsewhere, in safeguarding and promoting teachers' MHWB by proposing offering more support to teachers during the pandemic.

However, including teachers in planning should go beyond the pandemic. By including teachers in the development or proposal of new reforms and policies, teachers may feel valued and have a say in the distribution of the workload that may be a result of new implemented educational policies. This will also give teachers a sense of having control over their work situation but also lessen their worries of the unpredictable context they experienced working during the pandemic. It may also give teachers more predictability since they would be aware and included in the change-making processes.

The JD-R model states that job resources can buffer negative impacts of job demands on burnout (Bakker & Demerouti, 2007) as well as more generally on MHWB. Thus, offering social support remains beneficial to prevent teacher burnout, increase job commitment and impact teacher attrition (Hakanen et al., 2006). In the future, more efforts could be undertaken to ensure teachers' access to resources, such as social support, to aid in maintaining their working and health situations and aiming towards bridging the gap between school staff but also teachers and students, and teachers and parents, strengthening the whole school community. This could be done through a democratic bottom-up, equity-approach that allows for national and local communication to be had where representatives of schools may have a say in the national decision-making process and ensure that teachers' perspectives are considered. This may aid in reducing teachers' job demands and increase their access to

resources. Offering teachers social support can lessen the psychological distress during Covid-19 (Zhou & Yao, 2020). Increased job resources, and reduction in demands, may therefore lead to reduction in employee exhaustion and disengagement, resulting in more happiness at work (Demerouti et al., 2001) and lessen the effects of job demands on teachers' MHWB (Bakker et al., 2005). This is consistent with research that concluded that to ensure staff and student wellbeing, public health measures and schooling policies should let closure decisions be made on a regional, rather than local level (Fotheringham et al., 2022). This would aid in decreasing the responsibilities of school staff.

Therefore, from a public health perspective, and focusing on the socioecological model, it is important to promote factors that may contribute to creating a supportive school context and which, therefore, have a positive impact on teachers' MHWB: a positive work environment and social support by reducing harmful factors in the social and physical environment like stress and that which causes it (FHI, 2013). This coincides with the WHO's (2018) goals of mental health promotion and protection. Enhancing the wellbeing of school staff should be done not simply by reducing stress and burnout on an individual level but aiming for cultivating broader collective organizational culture of positive thinking, feeling, and aiding social support (Dabrowski, 2020) where improving organizational efficiency is beneficial in improving employee MHWB (Arnetz et al., 2011).

5.4 Conclusion

This study has shown that the COVID-19 pandemic disrupted life in schools, which made teachers professional lives more complicated and stressful. Increasing teachers' social support and access to resources during the period might have been important in maintaining teachers' MHWB. To benefit teachers' MHWB, future strategies should be implemented to ensure that job resources are increased, and job demands are decreased. One way to decrease demands and

increase resources needed to manage job strains, is having a better communication between government and the educational community when strategies and educational policies are implemented. Given that teachers expressed the lack of support and communication in this study during the pandemic, in the future it would be imperative that the government includes teachers' and schools when implementing and developing strategies that have direct consequences and an impact on their work situation such as disease measures in schools and the responsibilities that follow.

Since where you work is part of society, stress needs to be understood not only as a personal experience, but where the social environment influences your coping abilities (Marmot, 2015). This study has shown the ripple-out effect that government policy has on schools and the wider community, such as school staff, students, and parents. This is where the determinants of health within the socioecological model such as balance between demands, resources and control may lead to stressful work. If there is an imbalance between demands and resources (Marmot, 2015) poor organizational health is likely (Oullette et al., 2018), which further impacts students and the wider community. From a public health point of view, it is important to promote factors that have a positive impact on MHWB, such as a positively experienced work environment (FHI, 2013). If teachers are working in an environment that is beneficial to their MHWB and are flourishing, this will in turn impact students' wellbeing and learning, leading to healthier school communities which is beneficial for all. Having teachers feel appreciated and met with understanding for their work situation and giving them more control over what befalls their profession, it may result in a positive impact on their MHWB. This may be done by ensuring that teachers' perspectives and contributions on a local level are included when national educational policies are being made. Considering the findings in this study of teachers' experiences of working during the pandemic and the impact it had on their MHWB and given the importance of school communities and school culture, MHWB of staff should be a priority

in general and in the future. Establishing a school culture where people feel seen, appreciated, equal and safe through support on a local communal level, but also by giving local communities and schools the resources to do so, may ensure protection of MHWB, result in positive organizational health, and may impact teacher retainment.

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Appendix I

Interview Guide

Thank them for their participation in my study. Inform about research purposes and aims of study. Inform about rights and read these aloud from the consent form that will be agreed upon.

Opening phrase to start interview

I would like to hear your experiences working as a teacher during the pandemic. There are no right or wrong answers to these questions. I am interested in hearing about and understanding what it has like to be a teacher during this period.

Before we begin, would you tell me your age and how long you have worked as a teacher?

1. Can you tell me what it was like for you as a teacher during the pandemic?
2. How did the work situation change for you as a teacher during the pandemic?
3. How did you as a teacher cope with changes and new work demands?
4. How did these changes affect you?
5. Are there things you found challenging or rewarding working during the pandemic?
6. How did working as a teacher during the pandemic affect you? (Wellbeing, mental health)
7. Looking back on your experiences, how has it affected your perception of being a teacher?

Before we close the interview, is there anything else you would like to tell me that you think is important or relevant to the things we have been talking about?

Thank them again for their time and participation.

Appendix II

Information participation sheet

Vil du delta i forskningsprosjektet

«Å undervise under Covid-19 pandemien: en kvalitativ studie av norske læreres opplevelse av konsekvensene for deres mentale helse og tilfredshet»?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å intervju lærere om deres erfaringer etter å ha jobbet under pandemien og hvordan dette har påvirket dem. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formålet med studien

Studiens formål er å undersøke hvordan lærere har erfart å jobbe under koronapandemien og om det har påvirket deres mentale helse og tilfredshet. Oppgavens problemstilling er: Hvordan er læreres opplevelse av konsekvensene for egen mental helse og trivsel etter å ha jobbet under pandemien? Dette er et forskningsprosjekt for en mastergrad ved Høgskolen i Innlandet, fakultetet for helse- og sosialvitenskap. I forbindelse med dette er det ønskelig å intervju lærere om deres erfaringer av å ha jobbet under pandemien.

Ansvarlig for forskningsprosjektet

Høgskolen i Innlandet, fakultetet for helse- og sosialvitenskap.

Hvorfor får du spørsmål om å delta?

Det er av interesse for studien å snakke med lærere, men også ledelse hvis mulig. Det er spesielt læreres egne erfaringer og opplevelser av å ha jobbet under pandemien som er sentral for forskningen. Alle lærere som underviser i grunnskolen og videregående vil få tilbud om å delta i studien.

Hva innebærer studien?

Deltakelse i studien innebærer at det gjennomføres intervju der du blir stilt spørsmål om dine erfaringer av å ha jobbet som lærer under pandemien, og dine oppfatninger om hvorvidt dette har påvirket din mentale helse og trivsel. Intervjuet vil vare i ca. 30-45 minutter der dine

erfaringer, tanker og refleksjoner hentes inn. All informasjon om deg som deltaker i studien vil holdes anonymt. Det vil bli brukt opptaksutstyr i form av lydopptak, og vil kun være tilgjengelig for student og veileder.

Ditt personvern- hvordan vi oppbevarer og bruker dine opplysninger

Opplysninger som samles inn, vil kun brukes formålet som er beskrevet her. Alle opplysninger vil behandles konfidensielt i samsvar med personregelverket. Det er kun studenten og veileder som vil ha tilgang til datamaterialet og personopplysninger. Navn og kontaktopplysninger vil erstattes med kodenavn og holdes atskilt fra annen data. Taushetsplikt skal ivaretas og det skal ikke innhentes opplysninger som kan identifisere enkeltpersoner eller avsløre taushetsbelagt informasjon i studien. All datamaterialet som samles inn vil lagres på innelåst forskningsserver der kun studenten selv har tilgang. Kun alder og yrke vil være gjenkjennelig i publikasjonen.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Prosjektet er forventet å avsluttes den 20. Mai, 2022. Alt av innsamlet datamateriale, herunder innsamlede lydopptak slettes ved prosjektslutt i juni 2022.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Høgskolen i Innlandet har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Frivillig deltakelse

Deltakelse i studien er frivillig, og du som deltaker kan når som helst velge å trekke deg uten begrunnelse og uten at det får noen konsekvenser. Dette gjøres ved å sende en e- post eller tekstmelding til studenten. Det gjøres oppmerksom på at dersom deltakere ikke ønsker å delta, eller vil trekke seg fra studien på et senere tidspunkt, vil det heller ikke ha negative konsekvenser. Det vil heller ikke påvirke ditt forhold til skolen eller arbeidsgiver.

Dine rettigheter

Så lenge du kan identifiseres i innsamlet datamateriale har du som deltaker følgende rettigheter:

- innsyn i hvilke personopplysninger vi behandler om deg, og få utlevert en kopi av opplysningene
- få slettet personopplysninger om deg

- få rettet personopplysninger som er feil eller misvisende
- sende inn klage til Datatilsynet om behandling av dine personopplysninger

Trenger du mere informasjon om studien eller har lyst til å delta?

Hvis du har spørsmål om studien, ønsker å delta eller ønsker å benytte deg av dine rettigheter kan du ta kontakt med:

- Høgskolen i Innlandet, fakultet for helse- og sosialvitenskap, ved student Diana Bojicic. **StudentE- post:** diana_dita@hotmail.com eller **telefon:** 486 04 036.
- Høgskolen i Innlandet, fakultet for helse- og sosialvitenskap, ved veileder Miranda Thurston. **Epost:** miranda.thurston@inn.no .

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med: · NSD

– Norsk senter for forskningsdata AS på **epost** (personverntjenester@nsd.no) eller på **telefon:**

53 21 15 00.

Med vennlig hilsen

Diana Bojicic

Høgskolen i Innlandet

(Forsker/student)

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet «Å undervise under Covid-19 pandemien: en kvalitativ studie av norske læreres oppfatning av konsekvensene for deres mentale helse og tilfredshet», og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet 20.Mai.2022

(Signert av prosjektdeltaker, dato)

Appendix III

NSD approval

[Meldeskjema](#) / [Å undervise under Covid-19 pandemien: en kvalitativ studie av norske læreres opplevelse av konsekvens...](#) / Vurdering

Vurdering

Referansenummer

830400

Prosjekttittel

Å undervise under Covid-19 pandemien: en kvalitativ studie av norske læreres opplevelse av konsekvensene for deres mentale helse og tilfredshet.

Behandlingsansvarlig institusjon

Høgskolen i Innlandet / Fakultet for helse- og sosialvitenskap / Institutt for folkehelse og idrettsvitenskap

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Miranda Thurston, miranda.thurston@inn.no, tlf: +4762430276

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Diana Bojicic, diana_dita@hotmail.com, tlf: 48604036

Prosjektperiode

04.01.2022 - 20.05.2022

Vurdering (2)**19.01.2022 - Vurdert**

Vi noterer 19.01.2022 at det ikke er registrert noen endringer som påvirker vurderingen.

OPPFØLGING AV PROSJEKTET

NSD vil følge opp underveis (hvert annet år) og ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet/pågår i tråd med den behandlingen som er dokumentert.

Kontaktperson hos NSD: Olav Rosness, rådgiver.

Lykke til videre med prosjektet!

14.12.2021 - Vurdert

Det er vår vurdering at behandlingen vil være i samsvar med personvernlovgivningen, så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 14.12.2021 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige personopplysninger, særlige kategorier av personopplysninger om helse frem til 20.05.2022.

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 nr. 11 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake.

For alminnelige personopplysninger vil lovlig grunnlag for behandlingen være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 a.

For særlige kategorier av personopplysninger vil lovlig grunnlag for behandlingen være den registrertes uttrykkelige samtykke, jf. personvernforordningen art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

PERSONVERNPRINSIPPER

NSD 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, uttrykkelige og legitimerede formål og ikke

- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles 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 REGISTRERTES RETTIGHETER

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

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).

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

NSD 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 prosjektansvarlig følge interne retningslinjer/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 NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilken 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 NSD før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET

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

Lykke til med prosjektet!

Appendix IV

Table 3. *Specific codes, sub-themes, and themes of increasing demands and expectations in an unpredictable environment*

Theme	Sub-Theme	Code	Illustrative quotations
Increasing demands and expectations in an unpredictable environment	The direct influences of the unpredictable environment	Educational policy level expectations of teachers' efforts	<p>"We [teachers] look at this [new curriculum introduced] with a frustration that more and more things are being added to the teaching profession. ...It has come down to child rearing. It is a list [of work demands and expectations] that keeps getting longer and longer. Meanwhile, nothing is being removed from it."</p> <p style="text-align: right;">-Teacher2</p>
		Organizational expectations of teacher efforts during the pandemic	<p>"The expectations of us teachers are the same. You are to follow the curriculum even though you constantly have people [students] at home and you need to run double [two-track teaching] to acquire extra student assessment basis."</p> <p style="text-align: right;">-Teacher 3</p>
		New curriculum adding to teachers' work demands and pressure to upgrade	<p>"People [teachers] have felt a tremendous pressure because of the new curriculum. That they [teachers] should really go all in [back to school] and take more subjects and upgrade themselves [study points]."</p> <p style="text-align: right;">-Teacher5</p>
		New curriculum and Corona happening simultaneously	<p>"Corona and the new curriculum arrived simultaneously, so I think there is a greater workload that is a combination of Corona and lots to do with following Covid-19 measures in schools. ... That becomes a lot of extra work over little things in comparison to before the pandemic."</p> <p style="text-align: right;">-Teacher2</p>
		Changes in work situation leading to excessive workloads	<p>"I teach those [pupils] that I have at school and then I teach those in digital class by giving them assignments to do. That becomes an extra workload. It just keeps filling up along the way [extra work]."</p> <p style="text-align: right;">- Teacher2</p>
		Having no say in Covid-19 measures resulting in teacher stress	<p>"It has become too much of not taking pedagogical considerations [during traffic light models] into account. When you don't make pedagogical considerations then you end up stressing the teachers because we teachers feel responsibility for the pedagogical."</p> <p style="text-align: right;">-Teacher1</p>
		Covid-related work adding to teachers' workload and responsibilities	<p>"It takes a lot to be a teacher the way things are now. ... There's a lot that has befallen the teaching profession that wasn't there before. Things that have come in addition to teaching in terms of Corona. All the things that revolve around the pupils in relation to Corona and all that responsibility was placed on us [teachers] because they [government] don't know where to put it."</p> <p style="text-align: right;">-Teacher2</p>
		Feeling unprotected during the pandemic	<p>"The last Government chose not to prioritize teacher vaccinations. ...In terms of teacher's rights according to the work environment law of having a safe and health promoting work environment. ... I can honestly say that it has been two years of our work environment being experienced as neither safe nor health promoting!"</p> <p style="text-align: right;">-Teacher3</p>
		Schools lacking resources to adapt to Covid-19 measures	<p>"We can't readapt to everything [traffic light model]. ... You can't just switch which days we have physical and digital school because we have no chance in carrying that out if the change is sudden. We don't have enough rooms, for instance!"</p> <p style="text-align: right;">-Teacher1</p>
	Indirect influences of the unpredictable environment	Teachers feeling obliged to offer support to students at home	<p>"You feel obligated [as a teacher] to commit [online] and answer [messages from students] and that's just another extra thing to do."</p> <p style="text-align: right;">-Teacher4</p>
		Parental expectations of teachers' role exceeding teaching	<p>"And that is just an illustration of the parents' trusting that we [teachers] will handle it [situations with pupils unrelated to teaching]. We [teachers] take care of things."</p> <p style="text-align: right;">- Teacher5</p>

		Lacking support and protection to manage work situation	<p>“The last government chose not to prioritize teacher vaccinations. ...In terms of teacher’s rights according to the [Norwegian] Work Environment Act of having a safe and health promoting work environment. ... I can honestly say that it has been two years of our work environment being experienced as neither safe nor health promoting!”</p> <p>-Teacher3</p>
		Teachers lacking understanding and support from management	<p>“You can say that students have behaved well according to measures [yellow level]. That is what we have heard from [school] management who sit in their closed offices and put on a face mask the second they peer their noses outside the office door or are working from home. While we [teachers] ... have fifty or sixty close contacts in one day. I don’t think that is showing an understanding of what we [teachers] have been dealing with.”</p> <p>-Teacher3</p>
		Feeling isolated and unable to participate in the school community	<p>“This business of being isolated from my colleagues and not being able to share and run the internal core of our school. We were cut off from that because it was just you and your little class group [cohort].”</p> <p>-Teacher5</p>
		Impact of Covid-19 on school community	<p>“This is the second year [of pandemic] and now we see it has crumbled our foundation. What used to be our community where we worked and planned all sorts of social gatherings, teaching plans and the new curriculum... It has been pulverized. People are sort of wandering about looking for our school and not recognizing themselves in that community.”</p> <p>-Teacher5</p>
		Teachers’ worries of Covid situation affecting student socializing and performance	<p>“I think their study habits have declined. A lot more ‘clicks’ [social groups] because they are in their little groups [cohorts] in all contexts and do not cooperate across [cohorts].”</p> <p>-Teacher1</p>
		Teachers feeling unprepared for the transition to digital teaching	<p>“We [teachers] weren’t prepared well enough for this type of education [digital]. It takes time with all these technical things.”</p> <p>- Teacher6</p>
		Student absence leading to extra assessment situations	<p>“We [teachers] have to go and chase students. Already in the first two weeks before the end of the first term I had fourteen individual assessments to catch up on.”</p> <p>-Teacher3</p>

Appendix V

Table 4. *Specific codes, sub-themes, and themes of increasing job strain and its consequences for MHWB*

Theme	Sub-Theme	Code	Illustrative quotations
Increasing job strain and its consequences for MHWB	The effect on teachers' MHWB	Unpredictability stressful	<p>“For me, the unpredictability [of working during the pandemic] and the extra work has been stressful.”</p> <p style="text-align: right;">-Teacher1</p>
		Fear of being infected at work	<p>“The fear of being [Covid-19] infected. I have felt that...I was terrified! I wasn't vaccinated. Now I'm going to die and now it's going to affect me.”</p> <p style="text-align: right;">-Teacher5</p>
		Feeling exhausted	<p>“There are many exhausted teachers here. Many that are barely holding on at this point.”</p> <p style="text-align: right;">- Teacher2</p>
		Job affecting mental health	<p>“It [constant demands] becomes a wear and tear on your mental health and an energy drainage in relation to the teaching profession.”</p> <p style="text-align: right;">- Teacher3</p>
		Feeling lonely	<p>“I felt that I was almost all alone in the world. I only had one person to relate to [at work] that I worked closely with, and this lasted for several weeks.”</p> <p style="text-align: right;">-Teacher5</p>
		Becoming small class islands	<p>“We became small class islands [cohorts] where no one knew what the other ones were doing... It felt dreadful because we had few common meetings and that on its own affected our wellbeing.”</p> <p style="text-align: right;">-Teacher7</p>
		Making a sacrifice	<p>“It's been hurtful and emotionally heavy having to avoid meeting our parents while at the same time having many contacts [at work]. I think it's a sacrifice that teachers have made for having to meet so many at work.”</p> <p style="text-align: right;">-Teacher1</p>
	The ripple-out effect of increased job strain	Having health complaints	<p>“There is no doubt that I am much more tired now. I am so tired when I get home from work, I feel I need to relax more. I don't work out as much anymore and my weight has increased. I have troubles sleeping and when I do sleep, I sleep poorly and that in return affects my wellbeing. That and walking around feeling exhausted over longer periods of time affects my wellbeing and my motivation.”</p> <p style="text-align: right;">-Teacher3</p>
		Insufficient time to adapt to change	<p>“That was the second time we switched from Sunday late in the evening for Monday where you need a new teaching plan. That means... having to change all your teaching plans after six o'clock on a Sunday for Monday.”</p> <p style="text-align: right;">-Teacher1</p>
		Not receiving parental support	<p>“Many students do not receive help at home. ... And then you need to step up and help.”</p> <p style="text-align: right;">-Teacher6</p>
		The ability to adapt to change	<p>“Lots of decisions need to be made during the day regardless of if you have planned well and still having that ability to manage to adapt to change often determines whether a day is successful or not.”</p> <p style="text-align: right;">-Teacher7</p>
		Finding a balance to cope with stress	<p>“I spent hours walking in the woods, listening to music, and walking my dog. Taking small trips and finding a balance between the physical and the psychological loads was important to me.”</p> <p style="text-align: right;">-Teacher6</p>

		Finding alternative information to aid in digital teaching	<p>“Nobody in school and no one from management has any plan or training for you [digital teaching] ... Then you get those Corona voluntary- groups on Facebook [as source material to provide information about digital teaching] where people would learn about digital teaching.”</p> <p>-Teacher1</p>
		Pandemic exacerbating flaws in the teaching profession	<p>“The teaching profession has some fundamental flaws which the pandemic may have exacerbated for certain teachers when you hear teachers saying that the pandemic has made them reevaluate their profession.”</p> <p>-Teacher4</p>
		Contemplating leaving the profession due to feeling disrespected	<p>“The thought has struck me [of leaving the profession]. I have thought about it. ...More along the lines of not being treated with respect [reason to leave]. It struck me that I don’t want to work under these [unpredictable] conditions.”</p> <p>-Teacher1</p>
		Leaving the profession due to lack of flexibility and teamwork	<p>“I want a profession that gives me more flexibility [working hours and job demands] and more teamwork, so I have quit and found a new job!”</p> <p>-Teacher2</p>