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Universitetet i Stavanger

FAKULTET FOR UTDANNINGSVITENSKAP OG HUMANIORA

MASTEROPPGAVE

Studieprogram: Master i utdanningsvitenskap – pedagogikk	Høstsemesteret, 2021 Åpen
Forfatter: Aleksander Sesi Babajide Vedvik	……………………………………… (signatur forfatter)
Veiledere: Tarja Irene Tikkanen Anne Nevøy	
Title of master's thesis: Burnout: A collaborative school culture as a resource for teachers Norsk tittel: Utbrenthet: En samarbeidsorientert skolekultur som ressurs for lærere	
Emneord: School culture, collaboration, burnout, quantitative study, prevention, organizational culture, leadership	Antall ord: 21067 + vedlegg/annet: 5 Stavanger, 30.08.2021

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Burnout: Collaborative school culture as a resource for teachers

A nationally conducted quantitative study analyzing the relationship between teacher burnout and a collaborative school culture

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MUTMAS, Master's thesis in Education
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August 2021

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FOREWORD

This thesis marks the culimination of two years of studying towards a master's degree in Education at the University of Stavanger. I knew already before the process started, that I wanted to write about something that had basis in my own personal experiences. Having worked as a teacher myself during these last two years, I have seen how many teachers go beyond their means to provide their students the highest quality education they can offer. With them investing so much passion and effort into developing and teaching our children, they deserve that researchers, politicians and school leaders work tirelessly to find ways to make their jobs as easy as possible.

Writing this thesis has been challenging, but also thought-provoking. It has awarded me great insight into the organizational aspects of educational institutions, but also personal insight into what skills and awareness that I should to incorporate to improve my own professional practice.

I would like to thank my advisors Tarja Irene Tikkanen and Anne Nevøy for offering me extensive and valuable feedback throughout the writing process, even taking significant time out of the summer months to do so.

I would also like to thank professors Steve Gruenert and Jerry Valentine for the permission to use the School Culture Survey towards the purpose of this thesis.

Finally, I would like to extend a thanks to my family and particularly my partner who has been patient, encouraging and tremendously helpful throughout the entire process. This would not have been possible without you.

Aleksander Vedvik

Stavanger, 30.08.2021

ABSTRACT

The purpose of this study was to explore the relationship between teacher burnout and factors of a collaborative school culture among Norwegian elementary school teachers. To research the relationship, the study used two research instruments, the School Culture Survey and the Copenhagen Burnout Inventory. The sample included N=253 anonymous teachers near equally represented across the country. Posts put up on teacher interest groups on Facebook informed about study asked them to participate. The basis for the research was a conceptual framework that builds on research that identifies sources of burnout and their impact on specific domains of a teachers life.

To answer the problem-setting of the study, descriptive statistics, correlation analysis and hierarchical regression were used. Out of the six factors measured in the School Culture Survey, collaborative leadership and learning partnership were found to significantly predict a reduction in burnout in all three domains of the Copenhagen Burnout Inventory (Personal, work-related and student-related burnout). Collegial support was found to significantly predict a reduction in personal burnout. Out of the individual factors included in this study, education was found to predict an increase in student-related burnout.

The findings showi the importance of the interpersonal aspects of a teacher's professional life. Teachers need to be given the appropriate tools and support to manage relationships with students and their parents in a positive and productive direction. School leaders need to increase awareness around how their own leadership practices and how it is contributing to better the work conditions of their teachers. The results found potential areas of improvement, such as acknowledgement of effort, inclusion in decision-making processes or being supportive of educational innovation, leaders could likely create an organizational environment which significatly reduces teacher burnout. It is therefore suggested for future research that specific behaviors and activities which could improve significant school culture factors are looked into.

SAMMENDRAG

Studiens formål var å undersøke forholdet mellom lærerutbrenthet og komponenter av en samarbeidsorientert skolekultur blant grunnskolelærere 1.-7.. For å se nærmere på dette forholdet, ble det benyttet to undersøkelsesinstrumenter, «School Culture Survey» og «Copenhagen Burnout Inventory». Utvalget besto av N=253 deltakere som arbeidet ved skoler spredd jevnt utover landet fylkesvis. Deltakere ble invitert til deltakelse gjennom innlegg som ble lagt ut i interessegrupper for lærere på Facebook. Grunnlaget for forskningen var et forskningsbasert, konseptuelt rammeverk som dannet koblinger mellom opphavene for lærerutbrenthet og de ulike domenene av lærerens yrkesliv hvor utbrenthet kan forekomme (personlig, arbeidsrelatert og studentrelatert).

For å besvare problemstillingen ble det benyttet deskriptiv statistikk, korrelasjonsanalyse og hierarkisk regresjonsanalyse. Av de seks skolekulturfaktorene, ble samarbeidsorientert ledelse og læringspartnerskap funnet å være signifikante forklaringsvariabler for en reduksjon utbrenthet for alle domenene for utbrenthet (personlig, arbeidsrelatert og studentrelatert). Kollegial støtte ble funnet å være en signifikant forklaringsvariabel for personlig utbrenthet. Av de individuelle faktorene inkludert i studien, ble utdanningsnivå funnet å være en signifikant forklaringsvariabel for studentrelatert utbrenthet.

Funnene i dette studiet viser hvor viktige mellommenneskelige aspektene av lærerens yrkesliv er. Lærere trenger å bli gitt de nødvendige verktøyene og støtten til å lykkes i arbeidet med å utvikle positive og produktive lærer-elev og lærer-forelder relasjoner. Skoleledere må utvikle en bevissthet rundt egen ledelsespraksis og hvordan denne bidrar til forbedre lærernes arbeidsforhold. Resultatene fant blant annet det å anerkjenne læreres innsats, inkludere dem i beslutninger og å støtte forsøk på innovasjon i undervisningen som potensielle forbedringsområder. Det foreslås for videre forskning at det sees nærmere på konkrete tiltak i forhold til ledelse og læringspartnerskap som kan bidra til å redusere utbrenthet blant lærere.

Contents

1.0 Introduction

1.1 Purpose of the study and conceptual framework

Literature supports a possible relationship between supportive social and organizational structures within the school and the prevention of burnout (Bass & Riggio, 2006; Hargreaves & Fullan, 2012). The teacher's experience of organizational support also shows a significant relationship with a reduction in teacher stress and burnout (Yang & Xu, 2021). Therefore, I will, in this study, be looking at the factors of a collaborative school culture developed by Gruenert & Valentine (1998) as possible preventative measures through conducting a nationwide self-report study that aims to measure how teachers experience their school's collaborative culture along with their levels of burnout. Both descriptive and inferential analyses of the data will be performed for the purposes of identifying how these constructs manifest in Norwegian elementary schools, but also to see if a collaborative school culture affects teacher burnout, given that causality is assumed.

This will be researched using the following problem-setting:

Can schools prevent teacher burnout through the presence of collaborative school culture?

The conceptual framework (Figure 1.2) of this study is primarily built on a meta-analysis by Chang (2009) in which the sources of burnout are presented. Here, these causal factors are divided into three groups, (1) individual, (2) organizational, and (3) transactional factors.
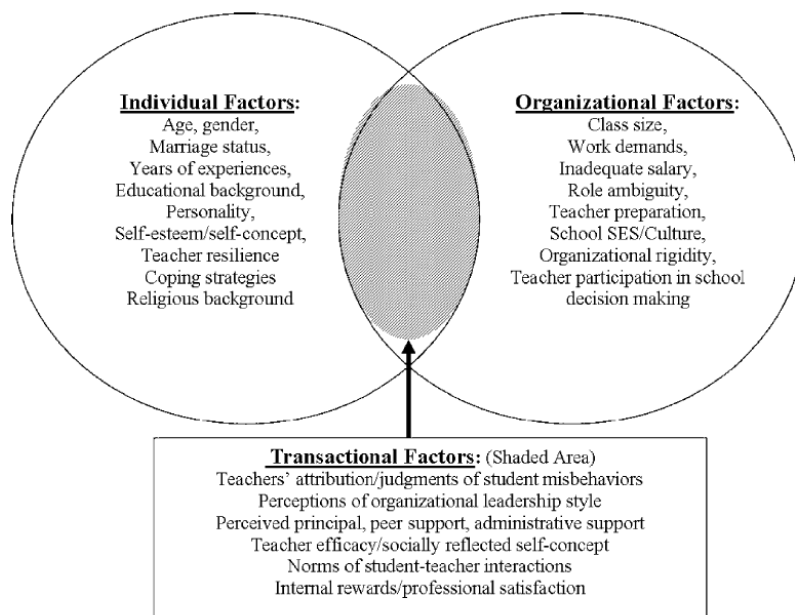

Figure 1.1: Studying the source of burnout; a movement from individual, organizational factors to transactional factors. From «An appraisal perspective of teacher burnout: Examining the emotional work of teachers» by M. Chang, (2009), Educational Psychology Review, 21(3), p.199. Copyright 2009, Springer Science + Business Media, LLC.

As seen (Figure 1.1), it is believed that the causality of burnout originates from primarily two domains, the individual and the organization, which consist primarily of objective causal factors. These converge to form what are deemed transactional factors, which can be explained as organizational factors as perceived by various individuals and are thereby subjective in nature (Lazarus & Folkman, 1984).

This study will focus on the measurement of only individual and transactional factors, given that organizational factors will be measured indirectly through the perception of individual teachers and must therefore be considered transactional. The chosen transactional factor for this study is to what degree a collaborative school culture is perceived as present by the teachers (S. Gruenert & Valentine, 1998). When present, it will be theorized that they serve as job resources, and when absent or mishandled as job demands (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). Individual factors chosen are gender, years of work experience, educational level, and FTE percentage (percentage worked of a full-time position), which all have proven to have significant links to burnout (Droogenbroeck, Vanroelen, & Spruyt, 2014; Friedman, 1991; Grayson & Alvarez, 2008). The chosen research on burnout will be that by Kristensen et al. (2005), which divides burnout into three separate domains, personal, work-related, and client-related. All mentioned research and chosen factors are integrated into the conceptual framework.
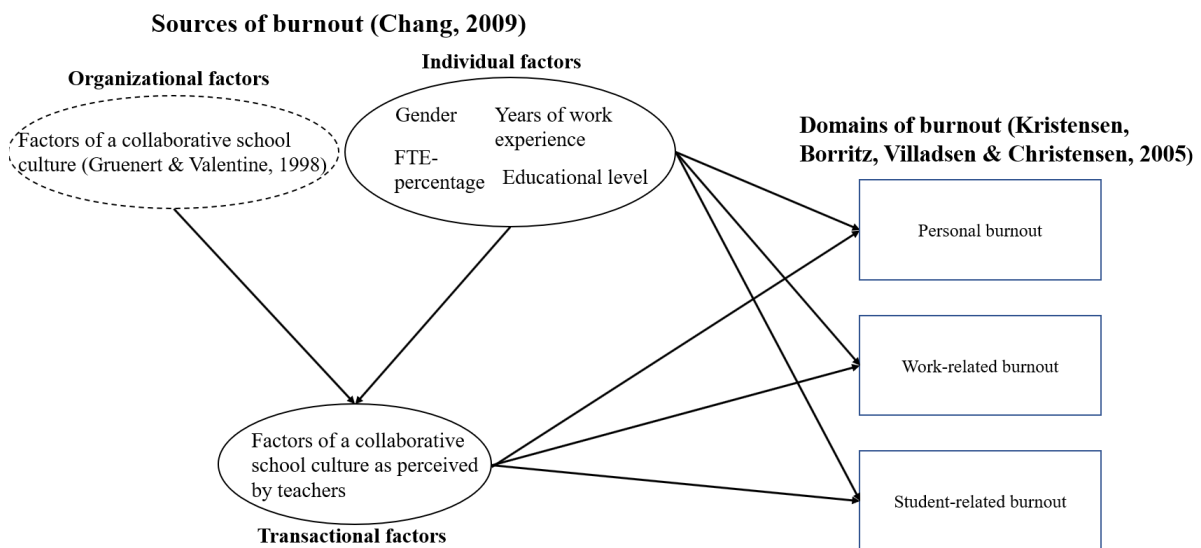

Figure 1.2: Conceptual framework, based on Chang's (2009) meta-analysis into the sources of burnout. The dotted line indicates that something is indirectly researched.

1.2 Motivation and background

My motivation for this study is based on the emergence of the COVID-19 pandemic and the significant impact it has had on the Norwegian school system. When the corona pandemic came to

Norway, I was working part-time as a teacher at an elementary school. During this time, many challenges arose, whether it was managing communication with students, decreased support from school administration, or handling the increased workload. These experiences, although depleting, allowed me to reflect on the vast challenges that come with working for an organization, or in this instance and more specifically a school, during disruptive events. What do good schools do well and vice versa?

With the Norwegian school system being centralized and the schools owned by the municipalities, the handling of the pandemic has been a national debate. Among the criticisms was the claim that the government had failed in establishing role clarity. Central directions for how to conduct digital teaching from home were unclear on what was expected versus what was suggested, something that created excessive work and confusion for the schools, their teachers, and even the municipalities (Ghosh & Ratvik, 2020).

The pandemic was particularly troubling considering how reports of exhaustion among many Norwegian teachers had caused concern for a possible wave of burnout several years prior to its occurrence (Skaalvik & Skaalvik, 2013). Research done on behalf of the Union of Education Norway showed that during 2020, the first year of the pandemic, 62% of member-teachers had experienced some to a large increase in workload and that over 40% of their teachers were considering other professions, giving reasons to believe that teachers may be at risk of burning out (Respons Analyse, 2020).

Schools have had to completely rethink how they arrange meetings, collaborate, educate their students, and not least ensure the well-being of their staff, in particular their teachers. Hermann (1963) defines crises as devices of change, and there is little doubt that the pandemic has shown the importance of effective crisis management in that leaders who manage so are identified by a constant emphasis on adaption and reinventing how education is conducted (Bagwell, 2020). Schools with these types of leaders would be able to manage what, according to Hermann (1963), is the most central danger of a crisis, the breakdown of communication. They would quickly establish new guidelines for organizing the childrens' school days and teachers' meetings instead of leaving the teachers to fend for themselves. Recent studies also show a significant positive relationship and also a predictive relationship between teacher stress and Covid-19-related stressors (MacIntyre, Gregersen, & Mercer, 2020; Pressley, 2021; Santamaría, Mondragon, Santxo, & Ozamiz-Etxebarria, 2021). Therefore, research that seeks to find possible preventative factors towards teacher stress and burnout could be of significant value.

Sokal, Trudel & Babb (2020) are among those who have already conducted this type of research, finding that support from the administration was a significant mediating factor in the prevention of burnout. However, other resources such as self-care practices and reducing demands were only

effective for specific stages or types of burnout. Studies on the nature of burnout itself also show that there are many ways of understanding it in terms of its source as well as how it manifests psychologically (Demerouti et al., 2001; Kristensen et al., 2005; Maslach, 1976). This shows that although the research into possible mediating factors is essential, it is equally important to acknowledge the complexity of the issue and its science. Guglielmi and Tatrow (1998), for instance, believed that "future studies should test focused predictions based on a sound theory of teacher stress"(p.91), rather than just testing multiple randomly selected predictors to see what may be deemed significant. The literature review of this study will therefore aim to assemble theories of teacher stress and burnout, identify potential sources of stress in the school as a workplace, and argue whether the introduction of a collaborative school culture may be a viable solution to this matter.

1.3 Research questions

The following research questions have been formulated to aid in providing answers to the problem-setting:

RQ1.   What presence is there of burnout among Norwegian elementary school teachers?

RQ2.   What presence is there of the factors of a collaborative school culture among Norwegian elementary school teachers?

RQ3.   To what extent may there be a relationship between the factors of a collaborative school culture and the domains of teacher burnout (personal, work-related, and student-related burnout)?

RQ4.   To what extent may the factors of a collaborative school culture predict the domains of teacher burnout.

RQ5.   Do any of the individual causal factors (gender, years of experience, FTE percentage, or educational level) influence research questions 3 and 4?

All research questions will be addressed using primarily three types of statistical analysis; univariate, bivariate correlation, and multiple regression analysis. RQ1 and 2 will be answered with univariate analysis, RQ3 with correlation analysis, and RQ4 and with multiple regression analysis, while RQ5 will serve as a control for RQ3 and RQ4.

2.0 Literature review

The primary purpose of the literature review will be to define the concepts of school culture and burnout and explain how these are interconnected. This will be done by arguing how Gruenert & Valentine's (1998) factors of a collaborative school culture may serve as resources or how the lack or mismanagement of them may make them sources of burnout. Secondarily, it will explore the presence of school culture and potential sources of burnout existing in the Norwegian educational system.

2.1 Introduction to school culture

> The school is a unity of interacting personalities. The personalities of all who meet in the school are bound together in an organic relation. The life of the whole is in all its parts, yet the whole could not exist without any of its parts (Waller, 1932, p. 6).

Before ever explicitly using the term school culture, Waller (1932) very well described the social life of the school as a highly interconnected "organism." Although he believed the pedagogical interaction between teacher and student to be the defining practice of a school, this activity was only the core of what really was a much grander operation (Waller, 1932). The school, as Waller implies, also operates at an organizational level, in which teachers, school leaders, and administrative staff depend on each other in order to succeed in providing the highest possible quality education. This perspective of the school as an organization is what leads us to the concept of school culture as described by Gruenert and Whitaker (2015), in which it is the framework of organizational practices which allows it to react effectively to new challenges. Kotter and Heskett (1992) support this view when they write how "only cultures that can help organizations anticipate and adapt to (…) change will be associated with superior performance over long periods of time" (p.44). In this way of understanding school culture, it becomes a matter of adaptability.

Hargreaves and Fullan (2012) detail this further when they write about how the schools with the best capabilities of improving their practice are those with teachers who seamlessly and actively work together for the purpose of collective improvement through what they call professional learning communities. In these schools, there exists a culture for collaboration, in which "teachers share strong educational values, work together to pursue professional development opportunities, and are committed to improving their work" (Steve Gruenert & Whitaker, 2015, Chapter 4). The process of re-adaption, in the case of unsolved challenges, may, according to Argyris and Schön (1996), be made even at the most foundational aspects, such as at the goals and values of an organization, as long as the necessary collaborative structures are in place.

Schools that are undertaking cultural development processes must, despite their emphasis on collective processes, also pay attention to the individual needs of the teachers. According to the most recent version of the Norwegian core curriculum, the teacher is to be regarded as a professional also on an

individual level as they are through their collective efforts (Norwegian Directorate for Education and Training, 2018). In this context, Hargreaves introduces the term *individuality* to explain the importance of allowing teachers to also bring their unique perspective on education into decision-making processes (Hargreaves & Fullan, 2012). Helle (2011) further warns that leaving teachers outside of these eventually will create dispassionate teachers. By instead acknowledging that they are deserving of authority as independent professionals whose voices are to be considered, it encourages the teacher to embrace organizational change through their own free will (Sahlberg, 2011).

2.2 School culture as a resource

When Hargreaves and Fullan (2012) write about the school as a workplace for educators, they introduce the concept of *professional capital*. An issue with many business-oriented organizations is that they view the relationships with their employees as a purely monetary transaction for an expected service (Hargreaves & Fullan, 2012). However, teachers, just as that of any other group of individuals, develop differently depending on the environment they are a part of, whether it's a certain type of school culture or a larger social context, such as the surrounding local community (Bronfenbrenner, 1977). And so, any individual teacher can, over short periods, do good work in business-oriented schools, but the lack of interest in providing them with a social environment that allows and motivates them to grow professionally will ultimately burn them out (Bronfenbrenner, 1977; Hargreaves & Fullan, 2012). This is therefore believed to be a short-sighted way of managing an educational institution if the aim is to create effective and high-quality teaching across the entire organization (Hargreaves & Fullan, 2012). For this to be possible, the concept of professional capital is provided as a solution, with its three necessary components being (Hargreaves & Fullan, 2012):

1. Human capital: The personal resources any teacher brings into the organization. An organization with a large proportion of highly skilled teachers will be considered high in human capital.
2. Social capital: Refers to the degree of cooperation and interaction between the members of an organization. Teachers high in social capital may enjoy an environment with effective communication, strong feelings of trust, and a sharing of common goals.
3. Decisional capital: Refers to the individual practitioner's ability to exercise professional judgment with confidence and independence when necessary. Organizations with high decisional capital perform more efficiently as decision-making processes are not as centralized.

Recognizing the importance of school culture may also be beneficial in times of crisis, as schools that lack channels for communication are more likely to fragment once difficult situations arise (Hermann, 1963). Furthermore, the failure to provide teachers with the necessary social capital will make them less willing to deal with facing new challenges in their working environment, which could be

characterized by withdrawal and burnout (Freudenberger, 1974; Hargreaves & Fullan, 2012; Hermann, 1963).

2.3 An introduction to burnout

Freudenberger (1974) was among the first to introduce the term *burnout* into the social sciences. It was primarily defined as an emotional or physical state in which an individual, for any given reason, had completely expelled their energy in the attempt of ensuing an insurmountable demand (Freudenberger, 1974). Finding a standard scientific definition has, however, been difficult, but it was eventually figured out that most definitions had in common "that it is an internal psychological experience involving feelings, attitudes, motives, and expectations, and that it is a negative experience for the individual(…) (Maslach, Leiter, & Schaufeli, 2009, p. 89)". In regard to teaching, the particularly relevant view of burnout is that of Maslach (1976), in which burnout is understood specifically in the context of interpersonal activities. Helping other people is energy-demanding work, and so burning out becomes not only damaging for the professional who's experiencing it but also for the person for whom the help is intended (Maslach, 1976). Because of this, burnout cannot be understood purely as an internal experience but must also be understood in the relational transactions in which it may occur, such as between a teacher and their students (Maslach et al., 2009).

Both Maslach et al. (2009) and Freudenberg (1974) write about burnout in terms of professions within the human services. However, the teaching profession is multi-faceted in that while it involves work with students, it also involves administrative and planning work. The view of burnout should, therefore, also be one that looks at it in relation to the work with people as well as the non-social work tasks (Chang, 2009; Kristensen et al., 2005). Furthermore, a strict view of burnout as something that's only psychological ignores any possible physical aspects. A definition that includes this aspect is that of Kristensen et al. (2005), which claims that "(…) burnout is the degree of physical and psychological fatigue and exhaustion experienced by the person" (p.197), and that this should be attributed "to specific domains or spheres in the person's life" (p. 197), with these being personal, in relation to work as a whole and in relation to interpersonal work with the clients of the service that is offered. This way, the emphasis remains on the general experience, rather than how it manifests behaviorally, which isn't necessarily burnout, but rather coping strategies (Kristensen et al., 2005). It also holds exhaustion as the primary determinant for experienced burnout, which is found to be how experienced burnout is best understood (Friedman, 2000).

Furthermore, it is crucial to note that burnout must be understood as something different than stress. According to Blasé (1982) and other research on the field, stress is occurrences within short timeframes, while burnout is the end-stage of the continuous, long-term accumulation of these stressors (Burke, Greenglass, & Schwarzer, 1996). This means that when looking at burnout in teachers, it is the internal process that is being analyzed and not the condition, which is the point

where the teacher is no longer capable of working (Blasé, 1982). They are, therefore, still able to perform their job but rely on coping strategies to do so (Chang, 2009; Freudenberger, 1974).

2.4 How motivational factors affect burnout in teachers

Blasé (1982) introduced the Teacher Performance – Motivation theory when attempting to explain how burnout occurs specifically within the teaching profession. The theory argues that just as any other type of work that requires individuals to put in a high-level effort, the continuous ability to do so is dependent on how said effort is rewarded (Blasé, 1982). The reward system as pertains to teachers is divided into two categories (Blasé, 1982):

1. Primary rewards stem from experiences that are directly received from interactions with students. This would primarily be student feedback in the form of appreciation or an expressed interest in what is being taught at school.
2. Secondary rewards are reinforcers that come from outside the student-teacher relationship, such as salary or acknowledgment from leadership.

What we therefore see is that the negation of burnout depends on both a positive teacher-student relationship as well as the more extrinsic economic and social rewards. However, the lack of appropriate rewards/outcomes in relation to the strain that is put on the teacher through environmental stressors and invested effort would cause a negative feedback loop termed as the *ineffective (degenerative) performance cycle* (Blasé, 1982). In this framing of burnout, the lack of appropriate rewards negatively affects teacher motivation, willingness to involve themselves in the workplace, satisfaction, and hence the future invested effort. This stresses the importance of acknowledging that there are necessary stimulants that need to be present in the teacher workplace to negate the burnout process.

2.5 The JD-R-model – resources and demands in the school environment

Because the stresses of working as a teacher are experienced so differently depending on the individual, a better grasp of the term stressor is needed (Chang, 2009). Blasé (1982) gives an explanation of how burnout occurs in teachers in which the stressors causing it are said to be "psychologically internal and environmentally external to the individual teacher" (p.103), which leads us to understand the meaning of the term as something that may be subjective. Because of how differently people may react to stressors, Demerouti, Nachreiner, Bakker & Schaufeli (2001) believe the term shouldn't be used unless it refers to those negative stimulants which are most common among people in most situations, meaning that it may be ineffective to acknowledge stressors which only affect small proportions of a population. This is why views of burnout that believe it should be measured through indicators, such as certain types of attitudes or behavior, are criticized (Demerouti et al., 2001; Kristensen et al., 2005; Maslach et al., 2009). Instead, Bakker, Demerouti & Verbeke (2004) attempt to explain the functionality of burnout through what they call the Job demand-Resource model

(JD-R-model) as a way of describing organizational working conditions. This model sets forth two categories as crucial for working conditions, the first being *job demands*. This is believed to be a precursor to the development of stressors in the workplace in which different types of occupations may have different demands, which may cause burnout (Bakker & Demerouti, 2007; Bakker et al., 2004). Job demands are therefore considered a constant factor to the nature of doing work, but only relevant as stressors leading to the development of burnout depending on the type of work that is being done. Concerning studies on the teacher population, studies have identified job demands such as time-pressure, workload, and types of emotional labor to be significant stressors (Skaalvik & Skaalvik, 2018; Tuxford & Bradley, 2015).

The JD-R model also introduces the concept of *job resources* which are regarded as "those physical, psychological, social, or organizational aspects of the job that may (a) reduce job demands and the associated physiological and psychological costs, (b) are functional in achieving work goals, and (c) stimulate personal growth, learning, and development" (Demerouti et al., 2001, p. 501). According to Bakker & Demerouti (2017), job resources can also be considered crucial in the ability to view job demands positively as a challenge rather than negatively as a problem. Appropriately, one study has shown a strong relationship between job resources and feelings of self-efficacy (Vera, Salanova, & Lorente, 2012). Important job resources that have been identified in the teaching profession are autonomy, support from leadership, the feeling of being appreciated, innovativeness, and a supportive organizational climate (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Vera et al., 2012).

An important type of resource that should be mentioned are the *personal resources,* more specifically those qualities or capabilities that are possessed by the individual teacher (van Wingerden, Bakker, & Derks, 2017). It is argued that personal resources should be a part of the JD-R-model as they have been found to be the most consistently protective factors against burnout in that these teachers are more independently capable of problem-solving and utilize the job resources that are available to them (Bermejo-Toro, Prieto-Ursúa, & Hernández, 2015; Vera et al., 2012). Relying too heavily on the personal resources of every teacher, however, is an unreliable strategy if the goal is to achieve consistent results for the organization as a whole (Hargreaves & Fullan, 2012). Instead, it has been shown that the job resources and personal resources in teachers can be developed and maintained through intervention programs, and thereby possibly mediate the negative effects of job stressors in the workplace (van Wingerden et al., 2017). This stresses the important role organizations may have in mediating burnout amongst their teachers.

When assessing teacher burnout, it has been found that there is a tendency to set unrealistic expectations, which they eventually fail to meet (Friedman, 2000). Especially teachers who are in the early stages of their career seem to fall victim to this, often due to a lack of understanding of what the job of a teacher entails (Friedman, 2000). And, since the teaching profession is a type of work that

often demands a high emotional and cognitive investment, many teachers are prone to burnout because of it (Chang, 2009; Nordhall, Knez, Saboonchi, & Willander, 2020). Therefore, it is important that newly employed teachers are provided the appropriate job resources, as the development of a type of professionalism that is resilient and able to set realistic goals can only happen through the support of colleagues and leadership (Freudenberger, 1974; Hargreaves & Fullan, 2012). For example, the provision of varied job resources such as mentorship programs, supportive work environments, and the promotion of personal resources such as networking ability has proven to be valued by first-year teachers as they protect against burnout (Schlichte, Yssel, & Merbler, 2005).

2.6 Approaching burnout as a multifactorial issue

What we see is that the prevention of burnout is a complicated issue, something Guglielmi and Tatrow (1998) agreed with. When they reviewed various available research related to teacher burnout and job stress, they noticed that among the primary issues at the time was that it often lacked the understanding of the issue's complexity. Too often, research was based on bivariate analyses that simply investigated singular cause-and-effects. Chang (2009) addressed this issue when examining a series of studies on how burnout occurred in teachers. She found that the process couldn't be viewed in a purely external and/or internal locus of causality.

The figure (Figure 1) constructed by Chang (2009) takes a multivariate approach to burnout through the introduction of *transactional factors*, which "suggest the relationship between individual factors with organizational factors" (p.201). All teachers have different backgrounds, whether it is the level of education, emotional resilience, or how difficult situations at work are dealt with. Teachers also deal with various types of organizations that place different levels and types of job demands. Therefore, it is both the individual, the organization, and the transactions between these two that must be taken into account when understanding what causes burnout (Chang, 2009). Another important aspect of the figure is that in addition to dealing with demands at various levels of the school system simultaneously, the manifestation of burnout measured through any transactional factor may be the result of multiple individual and organizational factors. Fernet, Guay, Senécal & Austin (2012), for example, found that the teachers' perception of the school environment was significantly affected by both autonomous motivation and teacher self/efficacy.

Bodenheimer & Shuster (2020) support the awareness around the teacher experiences when they write about how the teaching profession often is subject to conflicting expectations from different sources as well as being a highly emotional type of labor. The burnout that may ensue is often suppressed because rather than addressing their personal difficulties to leadership, they are rewarded for acting resilient (Bodenheimer & Shuster, 2020). By creating a culture that invalidates experiences of difficulty, the understanding of the complexities concerning burnout may be lost, which further stresses the importance of transactional factors when attempting to understand burnout.

Fiorilli et al. (2015) identified such complexity with the student-teacher relationships in that teachers may report high levels of work-related burnout but lower levels that are student-related. So, although dealing with challenging student behavior is a significant job demand, it may only partially or not at all be the source of burnout for a teacher (Chang, 2009). Instead, it could be attributed to organizational work issues related to leadership or work environment.

2.7 Factors of collaborative school culture in a burnout context

The following paragraphs will present theories related to each of Gruenert and Valentine's (1998) identified factors for collaborative school culture. It will also be explained how each of these may have a direct or indirect relationships with burnout.

2.7.1 Collegial support

Collegial support in this study will base its definition on Gruenert (1998), who views it as a collection of social qualities which determine how effectively teachers within a school work together. The aforementioned social qualities may be those of trust, the valuing of others' ideas, and proactive assistance (Steve Gruenert & Whitaker, 2015). It is particularly important to foster collegial support in schools considering the nature of a teaching environment, where it is common to compartmentalize the faculty into grade or subject groups, which in turn could cause a social or professional disconnect between its teachers. Löfgren & Karlsson (2016) warn against the tensions that may arise because of individualized interests, as the eventual consequence of these is a polarized work environment high in conflict and lacking in collegial support. Here, teachers will experience isolation and only be subject to professional feedback through formal evaluations and thereby start to develop uncertainty around their practice as educators (Hargreaves & Fullan, 2012). This could be problematic considering how central symptoms of burnout are found to have a negative relationship with teachers' experience of self-efficacy (Skaalvik & Skaalvik, 2010a).

However, through the use of actively implemented measures, these tendencies can be counteracted. Studies have shown that the use of peer mentoring programs for pre-service teachers reduces job turnover as it makes the transition from school to work less stressful (Kurtts & Levin, 2000). The organization and its leadership may therefore play a central role in the creation of an environment high in collegial support, although as a facilitator (Hargreaves & Fullan, 2012). It is, however, necessary that it is the teachers who voluntarily engage in social processes that, in time, will develop trust and openness towards collaborative activities with peers (Helle, 2011). In other words, there must arise an understanding of why this may be a valuable expenditure of time.

2.7.2 Learning partnership

The learning partnership refers to those outside-of-school relationships which are crucial to the success of the teacher's work with their students. It also points towards the idea that educating children is a collaborative effort where educators, parents, and students carry responsibility for student learning in

school (Steve Gruenert & Whitaker, 2015). Positive learning partnerships are challenging to establish, as they can vary greatly depending on the student that is in focus (Nordahl, 2009). Every relationship in this regard with either student or parent will therefore have a different dynamic that will provide the teachers with valuable knowledge about the student as well as communication challenges. Westergård (2012) shows, for example, how mastering the making of positive teacher-parent relationships has an impact on the teacher's feeling of self-efficacy. On the other side, many teachers, both new and experienced, may also experience these relationships as stressful if communication fails (Westergård, 2012). For example, some of them express confusion around how to properly address parents regarding difficult situations that may directly involve them or their children (Andersson, 1999). The negative interactions that may follow as a consequence will result in stress reactions and withdrawal where communication is reduced to a minimum, which in turn affects the student's academic progress (Westergård, 2012). So, in order to meet an increasingly diverse population of parents and students, it is also increasingly important that schools and their leaders provide their teachers with the "necessary resources and support so that they can critically examine when and how their notions of caring and their moral purposes might damage their interactions with parents and create emotional conflict within themselves" (Lasky, 2000, p. 857). Among those being that teachers are given adequate time in the workday to do so (Lasky, 2000).

Most central among the learning partnerships is that of the student-teacher relationship. Teachers have a highly significant impact on this relationship in terms of what some would put into the meaning of being an educator. They are role models, motivators and can effectively guide their students through conflicts whether they are of an academic or social nature (Jennings & Greenberg, 2009). However, the relationship also involves the setting of expectations. Good teachers understand that it is important to set expectations for their students, but also that the students set expectations for them in return, as both individuals should be considered active partakers in the learning process of the student (Helgevold, 2003). In this type of dynamic, the student is more proactive and autonomous as they understand that they themselves are responsible for their own learning (Helgevold, 2003). Failing to maintain such relationships, however, leads to what Jennings & Greenberg (2009) call the *burnout cascade,* in which poor student-teacher relationships lead to a negative classroom climate, which eventually causes teacher burnout. If teachers are to uphold a certain standard of practice, they must be given the necessary organizational support and working conditions to develop the necessary social-emotional competence to do so (Oberle & Schonert-Reichl, 2016).

2.7.3 Teacher collaboration

If collegial support looks into to the quality of relationships within a school, teacher collaboration can be defined as "a joint interaction in the group in all activities that are needed to perform a shared task" (Gruenert, 1998; Vangrieken, Dochy, Raes, & Kyndt, 2015, p. 23). It in other words it pays attention to the goal-achieving aspect of collaboration and how schools structurally approach this. Studies have

shown that teacher collaboration has benefits both students and teachers. They show that teachers who engage in collaboration with high-frequency, have students who perform and progress significantly better academically than those who engage less, as they are able to use these platforms to share valuable experiences and knowledge (Fuglestad, Hoem, & Schulz-Heidorf, 2017; Vangrieken et al., 2015) Also, by engaging in collaborative processes about work-related challenges, school can see a decrease in teachers who choose to leave the profession, which has been shown to have significant indirect links with burnout (Dufour, Dufour, Eaker, & Many, 2010; O'Brien, Richard, & Keeffe, 2007). Schools with strong collaborative structures in place may also be of benefit to teachers in terms of performance, personal well-being and development (Vangrieken et al., 2015) But to achieve this, simply putting in place the appropriate facilities and time is insufficient. According to Gajda & Koliba (2008), the implementation of teacher collaboration that is constructive requires that school leadership have a proactive and strategic approach towards the issue. School leadership can have a significant impact on the establishment of a collaborative culture at their school. For example, it has been shown that teachers tend to engage more in constructive collaborative activities when leadership goes in the forefront as role-models for the type of work-mentality they wish to see in their teachers (Gajda & Koliba, 2008).

Unlike collegial support, teacher collaboration is not a purely positive concept in regards to how a strong collaborative culture may manifest in practice (Vangrieken et al., 2015). Among potential challenges is that of its tensions with individual interests and practice within a school culture (Kelchtermans & Geert, 2006). Any school faculty will be diverse in terms of what value-systems and knowledge-bases drive the individual practitioner, and as a result, conflict regarding school-related issues may arise as a consequence of collaborative activities (Vangrieken et al., 2015). The perspective on these types of diversity may, however, be dependent on the culture that dominates at a particular school. Some cultures will interpret it as a problem factor where any individual views or practices which are not in line with the status quo are rejected (Bovbjerg, 2006). Teachers in these cultures experience reduced professional autonomy, which is believed to be an important job resource and basic psychological need among teachers (Johnson, 2003; Skaalvik & Skaalvik, 2010a; Vera et al., 2012). The other perspective on professional diversity can be explained by what Tjosvold (1985) refers to as constructive controversy. In this view of practicing teacher collaboration, conflicts that may arise are instead seen as a source for teachers and the school as a whole to create new understandings and thereby improve and strengthen educational practice (Tjosvold, 1985).

2.7.4 Unity of purpose

Gruenert (1998) explains unity of purpose as a measure of the degree to which teachers at a given school will work towards a common mission. Gruenert and Whitaker (2015) further explain the purpose of having an outlined mission as a way to "institutionalize a set of beliefs and behaviors(…) (Chapter 3)" It is also important that a distinction is made from visions, which looks towards the

accomplishment of long-term goals. These are equally if not more important as "vision statements provide the impetus for missions" (Rozycki, 2004, p. 94). Instead, a mission focuses on outlining what the school is to be doing currently, which also means it needs to be in line with a school's culture (Gruenert & Whitaker, 2015). These missions are usually detailed in what is called a mission statement which "represent an important summation or distillation of an organization's core goals represented by concise and simple statements that communicate broad themes. (Stemler, Bebell, & Sonnabend, 2011, pp. 390–391)". In the case of schools, the core goals will summate the purposes of education, which normally are related to civic, emotional, and/or cognitive development (Stemler et al., 2011).

The recipients of this communication may be any subject involved with the school's work, whether it is staff, students, parents, or the local community. But for the purpose of this study, what does the creation of a clear school mission do for the teachers? As Gruenert and Whitaker (2015) write about school cultures, they are the unwritten rules for how things are done. If this was to be the sole guiding force of a school, what it is actually trying to achieve could end up being perceived as somewhat obscure. Instead, a clearly outlined and written mission statement gives teachers a hands-on document that allows them to understand how the school prefers its educators to work to meet the needs of their students (Allen, Kern, Vella-Brodrick, & Waters, 2018). Lyons (1971) writes about the positive benefits of well-informed job expectations as what is called *objective role clarity*. Because there are fewer questions and worries concerning what is expected in the workplace, higher levels of job satisfaction are seen, which has been shown to have associations with burnout (Kristensen et al., 2005; Lyons, 1971). However, Grant (1988) warns about reducing the professional autonomy of the teacher to a functionary. Instead, the school mission statement should be one that the teachers of a school can voluntarily subscribe to, rather than be an excessively controlling document. A possible way and seemingly successful way of achieving this is through making the development of the statement a collaborative process that involves the participation of teachers and the eventual approval of the teaching staff as a whole (Stemler et al., 2011).

2.7.5 Professional development

Gruenert (1998) defines professional development as the degree to which teachers at a given school value continuous development of their individual educational practice as well as that of the organization as a whole. When Meagher (2011) identifies the characteristics of these schools, it is among these noted that their teachers are geared towards collaborative efforts that strive to improve educational quality, teaching effectiveness, teacher inclusion into decision-making, equity, and diversity. Professional development can therefore be beneficial for the achievement of a variety of goals depending on what is deemed preferable or mandated by schools or governing bodies.

Although professional development is a mentality possessed by teachers, it is also important that it is practiced within the school through constructive and supportive activities that lead to results (Baker & Smith, 1999). Teachers that don't see the practical benefits of effort that is put into professional development otherwise lose motivation, which could damage the interest of such work in the future. Time is also another crucial aspect of effective professional development. In U.S. schools, for example, it has been a commonly brought up issue that teachers are given a tight schedule to work on, which in turn has made developmental work difficult to integrate (National Education Commission, 1994). On the other side, you have Finnish teachers, who have the lowest amount of teaching hours in the Nordic region, and instead have allocated time during the workday for lesson planning and professional development (Finnish National Agency for Education, 2019; Sahlberg, 2015). Given that time pressure has been found to be a significant job demand for teachers, it is important that enough time is scheduled for professional development (Skaalvik & Skaalvik, 2018). The result may otherwise be a reduction in well-being and that teachers are less willing to engage in such activities, subsequently leading to burnout (Skaalvik & Skaalvik, 2011). As Hargreaves (2012) explains, the implementation of professional development must be a genuine effort that school owners are willing to invest time and resources into. It may otherwise simply serve as a vacuous and strictly mandated concept that causes teachers more stress than support. In these schools, practices of professional development may appear on paper but are of little to no value or may even serve as a carrier for the personal agendas of leadership (Hargreaves & Fullan, 2012). Professional development that is perceived positively by teachers on the other hand has been shown to have a significant negative relationship with burnout symptoms such as depersonalization and personal accomplishment (Özer & Beycioglu, 2010). It should however be noted that this study found no significant relationship with emotional exhaustion, which Kristensen et al. (2005) deems as being a core trait of burnout.

2.7.6 Collaborative leadership

Collaborative leadership explains the degree to which leaders succeed in establishing and maintaining collaborative relationships with teachers and other school staff (Gruenert, 1998). The emphasis on the term "collaborative" is important in regard to the field of education as it attempts to break away from some of the traditionally business-related practices of leadership. Many of these practices may, however, not be translatable to schooling as the focus too often is on an extrinsic goal such as profit or test results (Steve Gruenert & Whitaker, 2015). This type of approach as an educational leader is problematic as it frequently favors short-sighted practices in leadership, in which teachers are viewed as expendable assets (Hargreaves & Fullan, 2012). As a consequence, these schools are often characterized by few opportunities for collaboration and professional development, a highly controlled work environment, and little to no supervisory support, which all are reported to have significant relationships with teacher burnout, which in turn leads to high job-turnover (Cooley & Yovanoff, 1996; Hargreaves & Fullan, 2012; Oberle & Schonert-Reichl, 2016; Seltzer & Numerof, 1988).

But to create an organization that performs consistently over longer periods of time, a different perspective on leadership is needed. Bass and Riggio (2006) write about transformational leadership as a possible counter to the command-and-control leadership style. A transformational leader understands that the organization will, throughout its lifetime, encounter multiple challenges of various sizes, and so they must be inclined towards collaboration and the fostering of professional autonomy in order for the organization to maintain effectiveness during turbulent periods (Bass & Riggio, 2006). And so, instead of a too big emphasis on the production of results, it should be geared towards the creation of value-based organizational practices (Bass & Riggio, 2006). For example, studies have shown that when schools have strong learning-oriented collaborative practices among teachers and between teachers and administration, student achievement improves (Leana & Pil, 2006).

Among key elements of transformational leadership is the importance of guiding, inspiring, and empowering their employees into operating independently, but do so according to their own goals and ideals as well as according to the fundamental values of the organization (Bass & Riggio, 2006; Helle, 2011). In this manner, leadership does not simply become a control organ but also a source of education and motivation for the employees. This stresses the value and importance of leading through communication and collaboration, aspects of an organization that normally falter when faced with serious disruption (Hermann, 1963). In these situations, however, organizations with transformational leadership are more likely to maintain high efficiency and be better protected against teacher burnout (Bass & Riggio, 2006).

2.8.0 School culture as interpreted in the Norwegian education system

An important characteristic of the Norwegian school system is its significant degree of centralized management (Helle, 2015; Tjøtta, 2016). Because of this, the Norwegian government also has a say in the development of school culture. When Buli-Holmberg, Nilsen & Skogen (2015) analyze the Norwegian school culture, they characterize it as a culture for learning, which they choose segment into two levels, the macro, and microlevel.

The macro-level refers to the broader political management of all Norwegian schools (Buli-Holmberg et al., 2015). A common management practice at this level is the use of reforms that are to be enacted and often interpreted by the schools. The reforms are significant in terms of school culture, as they view culture as a framework as well as a certain set of values with which educational practices must be aligned with. These are guidelines for school culture are all written down in a core curriculum as "principles" and "core values." When writing about principles, the Norwegian Directorate of Education and Training (2018c, 2018b), for example, mention having "well-developed structures for collaboration, support, and guidance between colleagues and across schools" as important, but also that this serves to promote a "sharing and learning culture" (p.21). Furthermore, in terms of the children's education, it is to "be based on fundamental values (…) such as respect for human dignity

and nature, and on intellectual freedom, charity, forgiveness, equality and solidarity" (p.3). Concepts such as inclusion and customized training for pupils have also been popularly implemented as values that form the cultural foundation of educational practices and have been reinterpreted throughout the course of many political reforms (Jenssen & Lillejord, 2009; Thuen, 2010).

The second level of the culture is the microlevel, in which educational practices inside each school are realized and understood purely through the use of the competency, experience, and judgment of the teachers and leaders at a single school (Buli-Holmberg et al., 2015) Because broader lines of education already are decided centrally, this level is more task-specific and detail-oriented in terms of the possible challenges related to the teacher-profession (Buli-Holmberg et al., 2015). It is here that teachers are free to practice according to their professional convictions.

2.8.1 A shift to result-oriented education and its effect on school culture

Despite the emphasis on value-based practices in the Norwegian core curriculum, there still exists questions around to what degree the Norwegian school system also still utilizes a more result-oriented approach in managing its educational institutions. Sjøberg (2014) believes that a gradual loss of faith in teacher- and institutional professionalism has been seen due to what Norwegian politicians have believed to be inadequate academic results on high-stakes tests such as the PISA (Programme for International Student Assessment) tests. This need for improved results eventually sparked a shift into accountability-based management of the schools, where the responsibility of quality control, which was previously held by the individual schools, was transferred to national authorities (Sjøberg, 2014; Thuen, 2010). Among those quality-control measures was the implementation of national high-stakes testing, such as the National Tests, which has led to teachers seeing a significantly increased workload (Helle, 2015; Skaalvik & Skaalvik, 2012). Furthermore, these types of tests have been shown to significantly predict burnout among those teachers who are responsible for the assessed subjects (Hanson, 2006). Given that burnout is known to cause a decrease in job performance, it may therefore be counterintuitive to believe that this type of centralized quality-control will improve student learning (Maslach, Schaufeli, & Leiter, 2001; Sahlberg, 2011). For the schools to maintain credibility in the eyes of national authorities as institutions that provide high-quality education, teachers must shape their teaching and the contents of their lessons and school leaders their educational priorities according to the goals set in the national curriculum, which consequentially undermines their professional autonomy (Mausethagen & Mølstad, 2015; Skedsmo, 2009). This may also be highly unfortunate in that a too large emphasis on test scores may not necessarily measure what teachers are actually attempting to accomplish in the classroom, which sometimes may be of a more social or psychological nature rather than academic (Hargreaves & Fullan, 2012). Implementation of high-stakes testing for accountability purposes has, in this way, been given defining power as to what a "good" education is and may change what school leaders prioritize in terms of organizational efforts (Sjøberg, 2014).

This chapter has covered literature relevant to the factors of collaborative school culture, burnout, and how they have been found to have significant relationships with one another. This will be used to answer the research questions by connecting the relevant literature with the findings of this study.

3.0 Method

This study will be employing a quantitative method, as the goal of this study is to attempt to investigate relationships between factors at a large scale, geographically, and in the number of measurements, in which research methods that utilize statistics are beneficial (Lewin, 2005).

3.1 Research design

This study will be looking into the possible associations between the teachers' experiences of collaborative school culture and burnout using a *cross-sectional design*, in which all the chosen variables will be measured at a specific time-point (Lewin, 2005). The study will collect data using self-report surveys in which accumulated data will be used for statistical analyses. Because this study intends to discuss the possible direction of causality between the analyzed factors, a longitudinal study may have been more ideal but would have been too time-consuming. Regression analysis was used as a means to make causal inferences (Lewin, 2005). It also aims to fulfill the need for more multivariate analyses of burnout, in which it is believed that potentially significant causal factors must be analyzed in their relationship with others (Guglielmi & Tatrow, 1998).

3.2 Sample

The study was focused specifically on teachers working in Norwegian elementary schools, years 1-7, working at least 50% of a full-time position (FTE-percentage). The reason for not choosing to involve any other type of school was based on Gruenert and Whitaker (2015), who write that school culture can function as a "framework that a group can use to solve its problems." The problems that a school need solved may therefore be dependent on the type of school that is in question. Norwegian lower- (years 8-10) and upper (years 11-13) secondary schools differ significantly from elementary schools (years 1-7) in that lower secondary school, for example, marks the introduction of graded test-taking. Furthermore, the use of similar high-stakes testing has been found to favor more teacher-centered instructional methods the more prevalent they become, and so it can be argued that organizational frameworks should be tailored to the goals an organization is trying to achieve (Faulkner & Cook, 2006). Due to this differing in organizational challenges, it seemed reasonable to limit the sample to elementary school teachers.

An important part of the data collection process was be to ensure appropriate representation. Because Norwegian elementary schools are owned and operated by the municipalities, there might be slight differences in how they are controlled. A report from 2017 by Statistics Norway, showed that the learning progress at the elementary school level differed significantly depending on what school you attended and municipal belonging (Steffensen, Ekren, Zachrisen, & Kirkebøen, 2017). As this could indicate differences in the approach to public education, a geographical limiting of the scope of the study could therefore risk the production of inaccurate results that do not reflect the condition of school culture and burnout on a national level. It will therefore be preferable that the sample

proportionally represents teachers across the country. For this study, teachers will be asked about their county of residence, and so representativity in this study will be measured as sample density in proportion to total county teacher populations.

3.3 Procedure

After he data collection process was performed using a digital survey service developed by the University of Oslo called Nettskjema. The survey was put together and then distributed by contacting three types of instances, schools, online interest groups for teachers on Facebook, and teacher unions. The collection aimed at maximizing the number of participants, which is why so many sources were utilized.

The principals of 60 schools, chosen with simple randomized selection, were contacted by e-mail with an invitation to participate. If they agreed to participate, another mail with a link to the survey and information about the project would be sent, which the school then would forward to all its teachers. Teacher unions were also contacted using the same procedure, except that all the ones found were contacted, which ended up being a total of 3. Finally, teachers were indirectly contacted through posting invitations on the walls of teacher interest groups on social media. The posts contained information about the project written according to the guidelines of the Norwegian Centre for Research Data and a link to the survey (NSD, n.d.). The teachers consented to participate by answering the survey and were free to change or rescind their answers at any time, even after completing the survey. No teachers were contacted directly under any time-point of the data collection process.

Some significant challenges appeared during data collection. None of the invited schools or teacher unions agreed to participate, and only 12 of the 60 contacted schools replied, declining the invitation citing time pressure and workload as reasons. Out of the contacted teacher unions, one replied, writing that a high number of research-related inquiries caused them to automatically decline ones where they would have no direct involvement. All of the answers received in the survey have therefore been attained from the teacher interest group on Facebook.

At the end of the data collection period, a total of N=253 responded to the survey. The data was then processed for further statistical analysis.

3.4 Research instruments

The complete questionnaire consisted of three parts: (1) Demographic and background information, (2) the School Culture Survey to measure the existence of a collaborative school culture, and (3) the Copenhagen Burnout Inventory to measure burnout.

There are also some important aspects to the survey that must be noted. All parts were distributed in their original language, being English, but some translations acquired from the Cambridge Dictionary

were added to lexical, single words. Words such as "faculty" used in the School Culture Survey are intended to refer to a school's teaching staff, while in Norway, this bears the meaning equivalent to a university department. And so, this was necessary to avoid possible misunderstandings. The survey was set so that all included questions had to be answered in order to complete it. This way, the study will have no participants to count as non-responders after the data collection procedure is over.

3.4.1 Demographic and background information

The following demographic and background information will be collected for the study: 1) Gender, 2) County of residency, 3) Years of working experience, 4) FTE percentage, 5) Educational level, and 6) Whether or not they have a certified teaching degree. Questions asked for 1, and 2 are demographic and categorical, while questions asked for 3-6 will be ordinal, grouped questions. The information intends to serve two purposes. The first being to present to what extent the sample represents the population of elementary school teachers year 1-7. The second purpose, as data to use for statistical analysis of the proposed problem-setting and research questions. There are, however, important exceptions for the demographic variables (1 and 2).

- The residential county of the teachers will only be used to present the geographical representation of the sampled population.
- The gender of the sampled elementary school teachers will not be used in bivariate correlation analysis.

The background factors listed 3-6 are work-related variables which all are included to control for specific individual circumstances:

- Educational level and teaching certification will control for whether or to what extent burnout is affected by formal competence, as suggested by Friedman (1991). These two will be asked in the same question, according to the teacher's employment code.
- Years of working experience will control for to what extent burnout is mitigated through practical experience.
- FTE percentage will control for to what extent work quantity affects the level of burnout.

3.4.1.1 Choice of background questions

Despite the first part of the questionnaire being objective questions related to demography and work-related background, its validity may still be relevant in terms of the choice of questions. As stated earlier, the primary intention of these questions is to see how measures of work quantity, experience, and education predict burnout. Secondarily these questions will serve as controls for the organizational factors to get a better understanding of their actual impact.

Many other questions related to the background of the participants could have been asked, such as age or religious background. Work quantity, educational level, and years of experience were ultimately

chosen due to their scope being limited to the individual's work background as well as research supporting their relevance. Gender was chosen due to the fact that approximately 75% of Norwegian teachers are female (Statistics Norway, 2020). If certain findings related to the organizational factors are more impactful on men compared to women, it may give us a clearer picture of its limitations in terms of overall impact.

3.4.2 Copenhagen Burnout Inventory (CBI)

Burnout was measured using the Copenhagen Burnout Inventory (CBI). This research instrument consists of 19 questions which are answered on a Likert scale with frequency descriptors ranging from (1) Never to (5) Always. The instrument was developed by Kristensen et al. (2005) as a response to the existing measures for burnout at the time. One of the primary critiques was that popularly used surveys such as the Maslach Burnout Inventory had a too big emphasis on the stresses caused by interpersonal engagement in the workplace (Kristensen et al., 2005). Instead, the CBI attempts to measure burnout in three defined domains, those being (1) personal burnout, (2) work-related burnout, and (3) client-related burnout, with each factor consisting of 6-7 questions. It is important to note that these three measures are independent of one another and do therefore not form any type of total score (Kristensen et al., 2005). In this way, the survey is more suited to measure burnout in a broader range of professions which may contain various levels of interpersonal engagement.

Because this study is specified towards teachers, the word "client" is switched out with "students," in line with the given instructions for the use of the survey (Kristensen et al., 2005). The study is also validated for use on teachers by assessing the validity of its constructs, the accuracy of its measurement, and confirmatory factor analysis to control its claims of dimensionality (Fiorilli et al., 2015; Milfont, Denny, Ameratunga, Robinson, & Merry, 2008; Piperac et al., 2021).

Questions related to personal burnout will be formulated in a generic matter for the purpose of understanding the participant's general and unrelated experience. Examples of questions are "How often do you feel tired?" and "How often do you feel worn out?".

For work- and student-related burnout, the questions are formulated with a direct or indirect mention of work or students so that the relational context of the burnout is clear. Examples of questions are "Does your work frustrate you?" or "Does it drain your energy to work with clients?". An example of an indirect question is, "Do you have enough energy for family and friends during leisure time?".

*3.4.2.1 Reflections on potential theoretical limitations*

In terms of surveying teachers at the elementary school level, this instrument has two possible limitations:

The first is that the CBI sets the precedence that all professions surveyed interact with clients. Kristensen et al. (2005) acknowledge that the word client is a broad term, but it is still important to

note that this was the chosen generic term that was in mind when the survey was developed. According to Bailey (2000), a client is someone who is actively participating in the provision of a professional service. As a consequence, it is suggested that students, given this interpretation, hold accountability for their role in this process as well as set expectations for the provider. These may be difficult conditions to set at the age range of the elementary school level. According to Piaget, children aged between 7-11 years have yet to develop the capacity for abstract thinking, meaning the independent exercise of processing ideas and concepts (Imsen, 2015). The students in this study are in addition a group that contains individuals at different stages of development. Professionalism or any meta-analysis of education may therefore be conceptions that are at best limited to most students at this level. Given this, it may be an unreasonable expectation that children in this age category would know what expectations to set or be aware of what role they would have in various circumstances related to their education. Tight (2013) also warns against the use of labels like these when applied to a group such as students, as you risk generalizing what is, in reality, a complex collection of individuals.

The second issue is that of the domains of burnout as presented by Kristensen et al. (2005), in which they are considered "three separate parts … designed to be applied in different domains" (p.196). This is because it is also explained that personal burnout is a generic subscale that can be seen in relation to work-related burnout in order to figure out how much of the personally experienced burnout is caused by work-related issues (Kristensen et al., 2005). This suggests that the model they propose of burnout may be concentric, with personal burnout on the outside and work-related and client-related on the inside.

But it is furthermore unclear how work-related and client-related burnout relate to one another. Fiorilli et al. (2015) found that they can be considered independent subscales, explaining further that research supports burnout caused by "work" being connected to work conditions and relationships with colleagues and leadership. Slater (2012), however, writes that "it is important for teachers to use a relationship-first approach in their teaching to maximize student learning and enable students to experience and participate in their schooling..." (p.58). The teacher-student interaction may, in other words be so integral to successful teaching practices, that for teachers to conceive the term "work" as something not even the slightest related to students, seems unlikely. I therefore suggest that in the scope of childrens' education, work-related burnout should be regarded as a secondary generic subscale which is concentric to student-related burnout (Figure 3.1). It will hoever be interpreted as originally intended for this study.
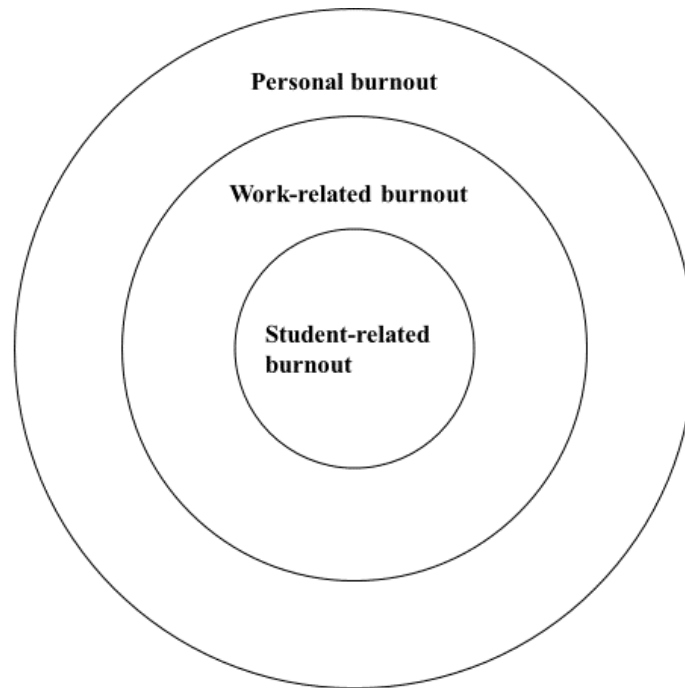
Figure 2.1: The domains of burnout are interpreted as concentric to one another depending on their specificity.

3.4.3 School Culture Survey (SCS)

Factors of school culture are measured using the School Culture Survey (SCS) developed by Gruenert and Valentine (1998). The survey is created specifically for assessing teachers' experience of specific collaborative practices within their school-work environments (Gruenert, 1998). It was developed through an extensive literature review which resulted in the production of a question bank that was pilot-tested and eventually underwent factor analysis (Lucas & Valentine, 2002). The finalized survey consists of 6 factors, with these being 1) Collaborative Leadership, 2) Teacher collaboration, 3) Professional Development, 4) Unity of Purpose, 5) Collegial Support, and 6) Learning Partnership (Gruenert & Valentine, 1998).

Each factor is measured with 4-11 items, which in total amount to it consisting of 35 items which are answered on a Likert-scale with agreement descriptors ranging from (1) Strongly disagree to (5) Strongly agree. The questions are formulated as statements such as "Parents trust teachers' professional judgment." or Teachers utilize professional networks to obtain information and resources for classroom instruction.".

It is important to note that in this study, the research instrument is being used slightly outside of its originally intended purpose, which was to evaluate the culture of a single school (Gruenert & Valentine, 1998). Instead, the plan is to use the survey to have elementary school teachers evaluate the general state of collaborative structures within school cultures across the country.

3.4.3.1 An issue regarding the Unity of purpose-factor

Given that the instrument is developed with the American educational system as its context, there are some items in this factor that may be challenging for Norwegian teachers to translate into a Norwegian context. The issue here is with the use of the words "mission" and "mission statement." In Norway, missions may have two sources. One which originates from the national core curriculum and one which schools may develop separately called a pedagogical platform (Ballangrud, Dimmen, & Slåtten, 2006; Norwegian Directorate for Education and Training, 2018a). Both of these may be considered the school's mission. An added issue is also that pedagogical platforms do not necessarily intend to any degree to realize the one which is communicated nationally (Ballangrud et al., 2006). Items such as "The school mission provides a clear sense of direction for teachers." may therefore cause confusion in terms of what is being referred to.

3.5.0 Statistical analyses

The data collected in this study will be analyzed using three types of analyses, descriptive statistics, correlation analysis, and hierarchical regression analysis. The analysis form and the purpose behind the use of each of these will be explained in the following paragraphs.

3.5.1 Descriptive statistics

3.5.1.1 Univariate analyses

Univariate analyses in descriptive statistics refer to processes in which singular variables are analyzed as means to describe the collected data (Albright, 2021). The types of measures that are most used in descriptive statistics are those of central tendency, which indicates what answers are most common for the analyzed sample, and dispersion which depending on the specific measure looks at how the data are distributed across the range of potential answer alternatives. This study will use *mean* as a measure of central tendency as well as *standard deviation* as a measure of dispersion. Specifically for the Copenhagen Burnout Inventory, the mean scores will be converted to a 0-100 scale along with the raw score, as instructed by the survey's developer (Kristensen et al., 2005).

To properly describe the strength of findings of the School Culture Survey and the Copenhagen Burnout Inventory, certain score thresholds will be used.

- For the CBI, any scores $\geqq 50$ will be considered as moderately high levels of burnout, based on the combined suggestions of other research (Chou, Li, & Hu, 2014; Creedy, Sidebotham, Gamble, Pallant, & Fenwick, 2017). It should be noted that this research is not conducted on teachers, but no descriptors could be provided from such. When comparing the domains, differences in the scores of $\geqq 5$ will be considered substantial (Kristensen et al., 2005).
- For the SCS, the scores of the subscales, as well as their items, will be determined with two thresholds, with scores less than 3 being considered low, above 3.5 being considered high, and values in between as normal (Gruenert, 2005).

In addition, a *frequency analysis* of all the background variables will be performed, making an exception for residing county, which will be presented as a sample density for each county. This looks at how the number of responses are distributed between the different answer options and will show specifically at which options they have accumulated (Midtbø, 2007).

3.5.1.2 Bivariate correlation analysis

A bivariate correlation analysis is a descriptive measure that looks at the strength and direction of the relationship between the data of two variables (Midtbø, 2007). Because the study uses JASP as means of calculating the correlation coefficient, the significance, based on a 95% confidence level, will be crucial as to selecting which correlation coefficients will be discussed further in this thesis.

Also important to performing a correlation analysis is the data's level of measurement. Because this study has questions that offer answers options with grouped values or rankings (Likert-scale), the acquired data can be considered ordinal at its highest. According to Akoglu (2018), the data used in the analysis must be normally distributed and continuous to use Pearson correlation. However, studies have shown that parametric statistics can be used for Likert data that are of small sample size, despite not being normally distributed (Norman, 2010). Therefore, Pearson correlation will be used for all data in this study.

Coefficients will be calculated between all variables present in this study aside from those that are categoric, in which the values will range between -1 to +1. Positive coefficients indicate that the increase of one variable causes an increase in the second one, while a negative coefficient would cause a decrease in **y** instead. In terms of analyses related to the field of psychology, the following interpretations of the Pearson- coefficient (r_s) can be made: no relationship: $r_s = 0$, weak relationship: $r_s = 0 < \pm 0.3$, moderate relationship: $r_s = \pm 0.3 < \pm 0.6$, strong relationship: $r_s = \pm 0.6 < 0.9$ and perfect relationship: $r_s = \pm 1$ (Dancey & Reidy, 2007).

3.5.2 Hierarchical multivariate regression analysis (Inferential statistics)

This study will use multivariate regression analysis to investigate if and to what extent two or more independent variables predict a singular dependent variable. It is considered as a type of inferential statistics, meaning that it, to various degrees, draws a conclusion, in this case, about the potential direction of causality based on the strength of the produced regression coefficient and its significance (Midtbø, 2007).

As stated in the research questions, one of the goals of this study is to figure out if the factors of school culture and individual characteristics can predict any of the three types of burnout measured (personal, work-related, and student-related). The types of burnout will therefore serve as dependent variables, while factors of school culture, background variables, and gender will be independent in three separate analyses (one for each type of burnout) using hierarchical regression models. These models are

favorable to utilize in cases in where you want to find out what amount of variance is explained by a specific set of independent variables after other independent variables are accounted for (Bommae, 2016). Each of the three tables will display two regression models in which the first only uses the factors of school culture (School Culture Survey), while the second one will consist of these as well as the background variables and gender. The goals of each analysis will be as follows:

Model 1: To control how much burnout is predicted by individual factors.

Model 2: To see how much burnout is predicted by the factors of school culture (SCS) and individual factors combined.

All tables regarding regression included in this study will first report the R^2-coefficients and possible significances of Model 1 and Model 2. When analyses are performed, an unstandardized and standardized β-coefficient is presented, which reports the strength for each independent variable in a model. It is recommended that the standardized is chosen if it is necessary to account for different types of scoring, which is the case here between the SCS and individual factors (Creswell, 2012). Each model will therefore be presented with the standardized β-coefficients of the independent variables, along with a possible determination of statistical significance.

3.5.3 Analyzing representativity of the sampled population

The geographic representation will be presented with a bar chart that shows the calculated sample density for each county. This is calculated by dividing the number of participants from a county with its respective teacher population at the elementary school level (years 1-7). The population numbers are sourced from the Norwegian Directorate for Education and Training ("GSI - Grunnskolens Informasjonssystem," 2021).

The determination of whether a county is over-or underrepresented in the study will be determined by identifying any statistical outliers as values that deviate too much from the mean. According to Jones (2019), if a recorded value is more or less than 2-3 standard deviations from the mean, it may be considered an outlier. If one or more counties are found to be under or overrepresented, it will be up to the reader to determine if this study retains national representativity.

3.5.4 Reliability analysis

It is my belief that Norwegian teachers will manage to do this survey in English due to the high educational level of this societal group. Still, there is a likelihood that the participants may misunderstand the meaning of specific items. These differences in comprehension will produce distortions in what the subscale is attempting to measure. This will be controlled by calculating what is called a *coefficient alpha*, which will provide a value that indicates how consistently the participants answer specific values within a subscale (Cronbach, 1984). Any large deviations will contribute to reducing the alpha and may indicate that the participant has not fully grasped the meaning of the

question. The interpretation of these values is arbitrary, but most researchers set limits for acceptable coefficients to at least .65 while any value below .50 is unacceptable (Goforth, 2015). Values between these will for this study be considered as questionable. The deeming of whether the subscales are acceptably reliable is, however, only the secondary goal of this analysis. The primary one will be to detect significant changes in internal consistency in comparison with the originally reported values (see 3.6.1). This will be calculated by using a statistical comparison tool called cocron (Diedenhofen & Musch, 2016).

3.6.0 Validity and Reliability

In the case of this study, the complete survey must be viewed as three compartments before discussing its validity and reliability: 1) Background questions, 2) The School Culture Survey (SCS), and 3) The Copenhagen Burnout Inventory (CBI).

3.6.1 Questionnaire validity and reliability

Validity can be defined as an understanding of a measure's external or internal intentions, meaning to what extent it is applied correctly by the researcher or how well the measure itself is developed for its intended purpose (Carmines & Zeller, 1979). The challenge of validity when using questionnaires is that they depend on self-reporting, which may produce answers that are highly prone to subjective influences that are internal and external to the study itself. When discussing the internal validity, with that referring to systematic elements such as the choice of research instruments, the term *construct validity* should be introduced. The word "construct" refers to hypothetical and often abstract concepts which are measured indirectly through, for example, experiences, feelings, behavior, or performance (Kimberlin & Winterstein, 2008). It is suggested that when examining this, these should be seen as to how they relate to variables in which they are theoretically known to be of a certain nature (Kimberlin & Winterstein, 2008). And so, construct valid questionnaires intend to measure said concepts as theoretically proposed by its developers (Carmines & Zeller, 1979).

Both the SCS and CBI are standardized research instruments where both have evidence of construct validity and reliability (Gruenert, 1998, 2005; Kristensen et al., 2005; Milfont et al., 2008).

Validity for the SCS was asserted by comparing it with another standardized research instrument with theoretically similar constructs, also called *concurrent validation* (Steve Gruenert, 2005). Reliability for the SCS was found to be anywhere from strong to acceptable, with the reliability coefficients (Chronbach's alpha) of its factors being .91 for collaborative leadership, .83 for teacher collaboration, .82 for unity of purpose, .87 for professional development, .80 for collegial support and .66 for learning partnership (Steve Gruenert, 1998).

The CBI's validity was established through the use of many types of strategies, among them being *predictive validation*. The results found in the CBI were used to predict certain types of behavior or

feelings, such as job satisfaction and sleep problems, in which both showed associations (Kristensen et al., 2005). As reliability is concerned, all three types of burnout were found to have reliability coefficients (Cronbach's alpha) .85 for client-related burnout and .87 for personal and work-related burnout (Kristensen et al., 2005).

Reliability will be a significant consideration in this study. Reliability explains the accuracy of the research instrument and thereby how well it is able to reproduce its measurements (Carmines & Zeller, 1979). Meaning that if two individuals share a similar experience of a given phenomenon, the instrument should produce similar results. Given that the questionnaire is distributed in what is to Norwegian teachers a second language is inevitable that some of the items or subscales may be subject to some misunderstanding, despite the added single word translations. And so, to ensure that the subscales of both instruments maintain adequate reliability despite this possibility, the internal consistency of the subscales of both research instruments will be presented.

3.6.2 Considerations for the study's external validity

Because this study is intended to be nationally representative of the Norwegian teacher population, some requirements for teacher demography will be attempted to be met. What we wish to ensure is what is called *external validity*. Here, the generalizability of the geography, constructs, behaviors, or biometrics found in a study is questioned in terms of the properties of the persons, settings, and times on which the sample is predicated on (Drost, 2011). Due to the high number of categories teachers and people, in general, can be separated into, this study will limit its questioning of population validity to two demographic factors: Residing county and gender.

County will be of importance to investigate how equally teachers are represented geographically in relation to the teacher population of each of them. If the study has significant over-or underrepresentation from certain counties, this will be addressed. As gender is concerned, slightly below 75% of all teachers in Norwegian elementary schools identify as female (Statistics Norway, 2020). So, if half the sampled population should turn out to be male, this should also be addressed.

3.6.3 Statistical validity of the results

The confidence interval gives us information about the range in which the mean values of the sampled population most likely are to be found. In other words, it gives information about the accuracy of the results (Hazra, 2017). The *confidence level* for this study will be set at 95%, meaning that we want there to be a 95% certainty for all collected answers to fall within the confidence interval. The interval itself will be calculated after the margin of error is calculated from the final sample size. The chain of activities can be summarized as follows: + sample size → - margin of error → - confidence interval → + confidence in acquired mean values → + statistical validity. Given a 95% confidence level, I have calculated that it will be ideal for reaching a sample size of 384, which equates to a 5% error margin. Hence, it will be ideal to get as close to this number as possible.

3.6.4 Ecological validity

An important concern for this study's validity is that both of the research instruments used are produced outside of the country, that is being researched. Therefore, ecological aspects may be of importance. *Ecological validity* explains to what extent the data may be generalized across environments with certain properties, systems, or characteristics (Schmuckler, 2001). Particularly important in this case are the national differences between school systems of which teachers are a part. While the Copenhagen Burnout Inventory was developed to be as generally applicable as possible, the School Culture Survey may have been made with a certain understanding of educational systems and practices in mind.

3.7.0 Ethical considerations

According to the Norwegian National Research Ethics Committee (2016), research ethics are regarded as the values, norms, or institutional policies on which all research activities are predicated. These can often be difficult to contextualize, and therefore it is the responsibility of every researcher to continuously reflect on their practice and the possible implications of enacting them.

3.7.1 Researcher bias

Bias is an issue that requires to be continuously addressed throughout the research process. It is expected that the researcher strives to remain neutral at all of its stages as bias could result in selective reporting or a distortion of the original findings (NESH, 2016). You may formulate your research questions in a way that increases your likelihood to confirm your pre-existing belief, incline your research participants to answer in a certain manner, or let bias influence how the findings of the study are discussed.

Preventing myself from influencing participants was a particular focus during the data collection. When invitations were sent out to teacher interest groups on social media, it would have been easy to add a sentence to the post, such as "teachers today work harder than ever before." in order to create emotional resonance and attract more participants. However, that could have attracted a disproportionate amount of highly burned-out teachers. The ability to maintain neutrality when communicating the intention of the study was therefore also necessary to produce results that reflected reality rather than one's own personal beliefs.

3.7.2 Trustworthiness

When conducting research, the researcher is dutybound to act with honesty and truthfulness in all parts of the process (NESH, 2016). Because of how data is collected in this study, in that the participants are anonymous, there is no way to affirm that the participants were real elementary school teachers.

3.7.3 Anonymity

This study collected personal information about the teachers' residing county, gender, and work conditions, which is a combination that could have been potentially person-identifying. Due to this, I was required by law to apply to the Norwegian Centre for Research Data for an assessment of the project (NESH, 2016; NSD, n.d.), where it was eventually deemed to be anonymous. Other important measures were also taken to ensure anonymity, such as encrypted collection and storage of data. No direct contact was made with any of the participants either. Instead, all contact occurred indirectly through school principals, social media services, and teacher unions so that none of their identities were exposed to the researcher.

4.0 Results

4.1 Geographic representation

Figure 4.1 displays the sample densities for each county, with higher densities indicating a higher number of participants from that county in relation to its total teacher population. As displayed in Table 4.1, limit values have been calculated for intervals of two and three standard deviations. According to the calculated values for 3 standard deviations below the mean, it is almost impossible for a county to be underrepresented unless they are not represented at all. This suggests that setting the limit to two is likely to be the most credible option. Given this, we see that one county, Rogaland, is found to be overrepresented in this study by 0.722 of a standard deviation (Figure 4.1). All of the other counties had sample density values within 2 standard deviations.
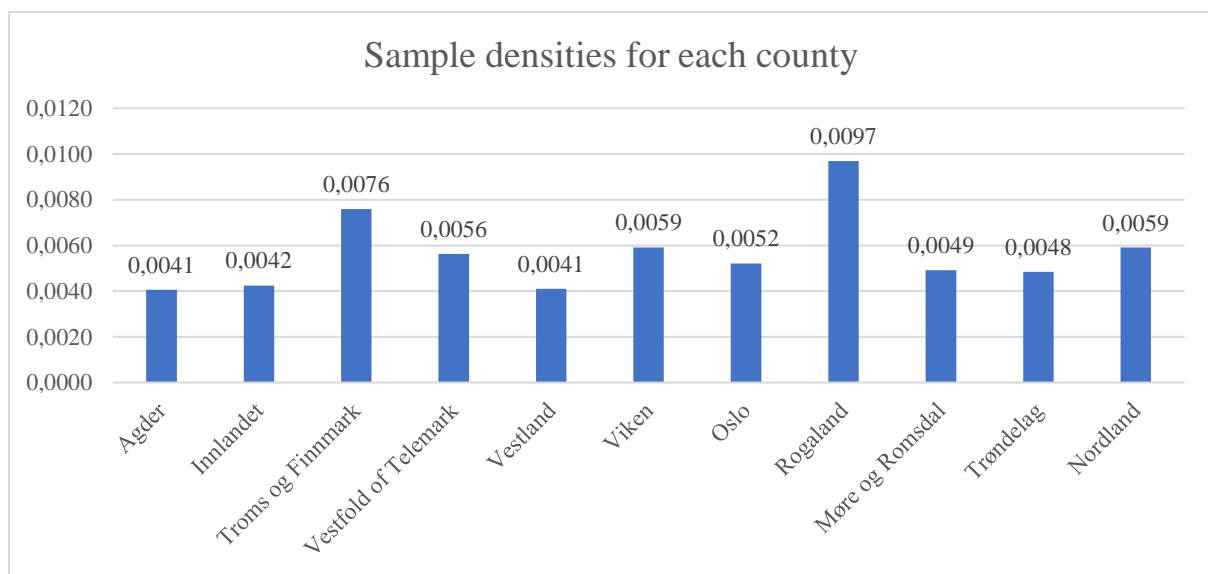
Average (x̄)	Standard deviation (σ)	x̄ + 2 σ	x̄ + 3 σ	x̄ - 2 σ	x̄ - 3 σ
0.0051	0.00169	0.00848	0.0101	0.00172	0.0003

Figure 4.1: Sample densities for each of the counties relative to respective county teacher populations

Table 4.1: Average, standard deviation, and calculated values for 2 and 3 standard deviations above and below the mean.

4.2 Sample background distributions

The distributions of teachers based on their individual characteristics are displayed in Table 4.2. Gender, education, and FTE percentage (percentage worked of a full-time position) were found to be particularly homogenous. The sample's distribution for the year of experience was, on the other hand, very evenly spread.

Female teachers were represented by a strong majority in this study. However, this distribution is similar to that of the total teacher population in Norwegian elementary and lower secondary schools, in which 75% identify as female (Statistics Norway, 2020). The distribution of education levels among the participants was skewed towards higher levels as only 7 of the participants had less than 4 years of education. The survey also included "MA, but no teacher qualification" as a response alternative, but none of the participants reported this. Over 86% of the teachers reported working full-time, which was expected considering that over 72% of the national teacher population does the same (Statistics Norway, 2020).

Variables	N=253	%
Gender		
Male	36	14,2
Female	217	85,8
Years of experience		
Less than 2 years	22	8,7
2-4 years	42	16,6
5-9 years	49	19,4
10-14 years	49	19,4
15-20 years	47	18,6
21-30 years	39	15,4
More than 30 years	5	2
Education		
Upper secondary school or less	2	0,8
3-year BA, no teaching competency	3	1,2
3-year BA, with teaching competency	2	0,8
4-year BA, with teaching competency	70	27,7

4-year BA + 1 year, with teaching competency	130	51,4
MA, with teaching competency	15	5,9
MA + 1 year, with teaching competency	31	12,3
FTE-percentage		
50-60%	10	4
61-80%	10	4
81-99%	15	5,9
100%	218	86,2

Table 4.2: Sample background distribution

4.3 Reliability analysis (Cronbach's alpha)

All of the subscales found in both the School Culture Survey (SCS) and Copenhagen Burnout Inventory (CBI) were found to have acceptable levels of internal consistency (.65 or higher) with the exception of learning partnership which reported a coefficient of .636. Although it fell below the lower limit of acceptable values, the difference from the originally reported value (.660) was insignificant. Learning partnership was found to improve to .685 when item 21 was removed, this was however not done to preserve the integrity of the research instrument (SCS).

The SCS saw a drop in the internal consistency for all of its subscales (see 3.6.1 for comparison). After performing the cocron-test for significant differences in internal consistency compared to the originally reported ones, teacher collaboration and professional development were found to have significantly lower values and fell by 0.089 and 0.21, respectively (Table 4.4). Aside from these, the drops in α-value ranged between .41 and .1, but these differences were found to have no significance.

The subscales of the CBI saw increased internal consistency in comparison with the originally reported values (Table 4.3). None of the changes were significant.

Copenhagen Burnout Inventory (CBI)

	Work-related burnout	Personal burnout	Student-related burnout
Cronbach's α	0.863	0.892	0.863

Table 4.3: Chronbach's α for the three subscales of the Copenhagen Burnout Inventory.

School Culture Survey (SCS)

	Teacher collaboration	Collegial support	Learning partnership	Professional development	Collaborative leadership	Unity of purpose
Cronbach's α	**0.741***	0.761	0.636	**0.660***	0.892	0.789

*Table 4.4: Chronbach's α for the six subscales of the School Culture Survey. *Value is significantly different from originally reported α-value at a 0.05 level.*

4.4 What presence is there of the factors of school culture in Norwegian elementary schools?

Descriptive statistics of the School Culture Survey, RQ1

Table 4.5 shows the average values and standard deviations for all the factors present in the School Culture Survey. To get a clearer picture of what the scores indicate, they will be described according to Gruenert (2005), who deems scores outside of 3 to 3.5 as outliers. Although these conditions are only used for individual items, they will, in this case, also be used for the factors as a whole.

Two factors scored below 3, with those being Collaborative leadership and Teacher collaboration. Out of 6 items, Teacher collaboration had the items 15 and 33 scoring below the range, with the first one scoring $\bar{x}$=1.818, the lowest of all the items in the survey. Collaborative leadership had the four items 11, 14, 26, 28 scoring below the range.

Three of the factors scored above 3.5, with those being Unity of purpose, Professional development, and Collegial support. Unity of purpose had items 5 and 19 scoring above the range, Professional development had items 24 and 30 above, and Collegial support had all items scoring above.

N=253	Collaborative leadership	Learning partnership	Teacher collaboration	Unity of purpose	Collegial Support	Professional development
Mean	2.896	3.297	2.839	3.528	4.000	3.547
Std. Deviation	0.717	0.671	0.712	0.682	0.707	0.656

Table 4.5: Descriptive statistics for the School Culture Survey.

4.5 What presence is there of burnout in Norwegian elementary school teachers?

Descriptive statistics of the Copenhagen Burnout Inventory, RQ2

Table 4.6 shows the unconverted, converted (in parentheses) averages and standard deviations of the three measured domains of burnout from the Copenhagen Burnout Inventory.

Looking at the converted scores, we see a substantial difference between work-related and student-related burnout with an 8.5 point difference. We also see that the participating teachers scored moderate levels of burnout on the personal and work-related domains. The two highest-scoring items were "How often do you feel tired?" for personal burnout and "Is your work emotionally exhausting?" for work-related burnout. Both of these items scored averages of $\bar{x}=4.028$ and $\bar{x}=4.095$, respectively. The two lowest-scoring items were "Do you feel that every working hour is tiring for you?" and "Are you tired of working with students?". These scored averages of $\bar{x}=2.368$ and $\bar{x}=2.411$, respectively.

N=253	Personal burnout (PB)	Work-related burnout (WRB)	Student-related burnout (SRB)
Mean	3.378 (59.45)	3.206 (55.15)	2.866 (46.65)
Std. Deviation	0.762	0.697	0.807

Table 4.6: Descriptive statistics for the Copenhagen Burnout Inventory. Scores in parentheses are after conversion to a 0-100 scale, as instructed by the survey author.

4.6 To what extent may there be a relationship between…

Bivariate correlation analysis, RQ3 and RQ5

Table 4.7 shows the correlation coefficients of all variables included in this study, with the exception of gender, due to it being a categorical variable.

4.6.1 …the factors of a collaborative school culture and the domains of teacher burnout? RQ3

Personal burnout was found to have weak negative relationships with Learning partnership ($r = -0.272$, $p < 0.001$), Teacher collaboration ($r = -0.164$, $p < 0.01$), Unity of purpose ($r = -0.138$, $p < 0.05$), Collegial support ($r = -0.163$, $p < 0.01$), Professional development ($r = -0.125$, $p < 0.05$), and a moderate negative relationship with Collaborative leadership ($r = -0.425$, $p < 0.001$).

Work-related burnout was found to have weak negative relationships with Teacher collaboration ($r = -0.165$, $p < 0.01$), Unity of purpose ($r = -0.184$, $p < 0.01$), Professional development ($r = -0.184$, $p < 0.01$),

and moderate negative relationships with Learning partnership (r=-0.331, p<0.001) and Collaborative leadership (r =-0.426, p<0.001). No significant correlation was found with Collegial support.

Student-related burnout was found to have weak negative relationships with Teacher collaboration (r =-0.183, p<.01), Unity of purpose (r =-0.297, p<.001), Collegial support (r =-0.150, p<.05), Professional development (r =-0.210, p<.001), and moderate negative relationships with Learning partnership (r =-0.301, p<.001) and Collaborative leadership (r =-0.326, p<.001).

4.6.2 …domains of teacher burnout and individual factors? RQ5

Work-related burnout was found to have a weak positive relationship with years of work experience (r =-0.127, p<.05), and student-related burnout had a weak positive relationship with educational level (r =0.141, p<.05). The other individual factors, gender, years of work experience, and FTE percentage, were found to have significant correlations with all three domains of burnout.

4.6.3 …factors of collaborative school culture and individual factors? RQ5

Years of work experience was found to have weak positive relationships with Learning partnership (r =0.218, p<.01), Teacher collaboration (r =0.238, p<.001), Unity of purpose (r =0.148, p<.05), and Professional development (r =0.124, p<.05).

4.6.4 Other notable findings

Collegial support showed a weak positive relationship with Learning partnership (r =0.299, p<.001). All other intercorrelating coefficients of the School Culture Survey were moderate or higher.

The intercorrelating coefficients of the Copenhagen Burnout Inventory were moderate to strong. Work-related burnout had a strong positive correlation with Personal burnout (r =-0.857, p<.001). This is relevant as personal burnout is the generic counterpart of work-related burnout, according to Kristensen et al. (2005), indicating that there may be little differentiation between the two domains for this sample.

Years of experience showed several weak positive relationships with the factors of the School Culture Survey. Those being Teacher collaboration (r =0.238, p<0.001), Learning partnership (r =0.218, p<0.01), Unity of purpose (r =0.148, p<0.05) and Professional development (r =0.124, p<0.05). This indicates that there is a weak tendency for teachers with more experience to also score higher on these SCS-factors.

Variable	1. Collaborative leadership	2. Learning partnership	3. Teacher collaboration	4. Unity of purpose	5. Collegial Support	6. Professional development	7. Personal burnout	8. Work-related burnout	9. Student-related burnout	10. Education	11. FTE-percentage
1. Collaborative leadership	—										
2. Learning partnership	0.420***	—									
3. Teacher collaboration	0.524***	0.366***	—								
4. Unity of purpose	0.485***	0.429***	0.547***	—							
5. Collegial Support	0.356***	0.299***	0.630***	0.555***	—						
6. Professional development	0.476***	0.368***	0.670***	0.582***	0.625***	—					
7. Personal burnout	-0.425***	-0.272***	-0.164**	-0.138*	-0.163**	-0.125*	—				
8. Work-related burnout	-0.426***	-0.331***	-0.165**	-0.184**	-0.116	-0.184**	0.857***	—			
9. Student-related burnout	-0.326***	-0.301***	-0.183**	-0.297***	-0.150*	-0.210***	0.572**	0.628***	—		
10. Education	0.067	0.005	0.026	0.032	0.036	0.052	-0.047	-0.018	0.147*	—	
11. FTE-percentage	0.007	0.026	0.081	-0.058	0.090	0.003	0.070	0.045	0.105	0.141*	—
12. Years of work-experience	0.086	0.218**	0.238***	0.148*	0.101	0.124*	-0.104	-0.127*	-0.109	0.071	0.098

Table 4.7: Correlation analysis including variables of the SCS, CBI, and individual factors. ***Correlation is significant at a 0.001 level, **Correlation is significant at a 0.01 level, *Correlation is significant at a 0.05 level. All correlation coefficients are Pearson's r.

4.7 To what extent may the factors of a collaborative school culture predict the domains of teacher burnout.

Hierarchical multiple regression analysis, RQ4 and 5

Below are the results of the performed hierarchical regression analyses using the three domains, personal, work-related, and student-related burnout, as dependent variables (Table 4.8). Displayed for all three domains of burnout are the R^2 coefficients for each of the analyzed models. Standardized beta coefficients and their level of significance are presented for all their independent variables.

4.7.1 Predicting personal burnout

Model 1 (which only used individual factors) was found to have no significant predictive relationship with Personal burnout. The factors of school culture in Model 2 (containing both collaborative school culture and individual factors) were, however, found to predict Personal burnout (R^2=0.235, $p<0.001$), explaining 23.5% of its variance. Factors which contributed were Collegial support (β= -0.160, $p<0.05$), Learning partnership (β= -0.152, $p<0.05$) and Collaborative leadership (β= -0.466, $p<0.001$).

4.7.2 Predicting work-related burnout

Years of work experience (β= -0.127, $p<0.05$) was found to have a significant predictive relationship with Work-related burnout in model 1 but is disregarded as the overall model was found to have no significance. The factors of school culture in Model 2 were found to significantly predict Work-related burnout (R^2=0.226, $p<0.001$), explaining 22.6% of its variance. Factors that contributed to this model were Learning partnership (β= -0.172, $p<0.05$) and Collaborative leadership (β= -0.417, $p<0.001$).

4.7.3 Predicting student-related burnout

Model 1 (R^2=0.054, $p<0.01$) was found to be significant, explaining 5.4% of the variance in Student-related burnout. Contributing factors were years of work experience (β= -0.124, $p<0.05$) and education (β= 0.152, $p<0.05$).

Model 2 (R^2=0.054, $p<0.01$) was also found to be significant, explaining 19.1% of the variance in Student-related burnout. It had both factors of school culture and one individual factor contributing to the model, with these being learning partnership (β= -0.137, $p<0.05$), Collaborative leadership (β= -0.230, $p<0.01$), and educational level (β= 0.161, $p<0.01$).

Model	Independent variables	Personal burnout	Work-related burnout	Student-related burnout
Model 1				
	Gender	-0.016	-0.110	-0.094
	FTE-percentage	0.088	0.060	0.097
	Years of work-experience	-0.108	**-0.127***	**-0.124***
	Education	-0.050	-0.007	**0.152***
R^2		0.020	0.032	**0.054****
Model 2				
	Gender	0.049	-0.021	-0.005
	FTE-percentage	0.104	0.057	0.078
	Years of work-experience	-0.081	-0.090	-0.072
	Education	-0.035	0.007	**0.162*****
	Collaborative leadership	**-0.473*****	**-0.422*****	**-0.235*****
	Learning partnership	**-0.160***	**-0.198***	**-0.152***
	Teacher collaboration	0.098	0.124	0.093
	Unity of purpose	0.138	0.072	-0.152
	Collegial Support	**-0.161***	-0.011	0.016
	Professional development	0.117	-0.015	-0.025
R^2		**0.237*****	**0.232*****	**0.194*****
R Δ(change)		**0.215**	**0.200**	**0.140**

Table 3.8: Multiple regression table displaying standardized β-values for all independent variables, R^2 for both models, and R Δ(change between model 1 and 2) of the three domains of burnout. ***Significant at a 0.001 level, **Significant at a 0.01 level, *Significant at a 0.05 level.

4.8 Summary of results related to research questions.

RQ1.   The levels of burnout in this study can be regarded as being at moderate to high levels, with work-related burnout scoring substantially higher than student-related among elementary school teachers. Teachers differentiated very little between work-related and personal burnout.

RQ2.   Professional development, unity of purpose, and collegial support scored at high levels (above 3.5), while collaborative leadership and teacher collaboration scored low (below 3). Learning partnership scored at a normal level (between 3 and 3.5). Potentially important items were identified.

RQ3.   Correlation analyses showed significant correlations between all the factors of the School Culture Survey and the domains of the Copenhagen Burnout Inventory, with the exception of collegial support and work-related burnout.

RQ4.   Multiple regression analysis found the presence of collaborative leadership and learning partnership to significantly predict a reduction across all the domains of burnout. The presence of collegial support significantly predicted a reduction in personal burnout.

RQ5.   Education was the only individual factor found to co-explain a reduction in student-related burnout along with the cultural factors. Years of work experience was a significant predictor when individual factors were analyzed isolated but failed to retain their significance in the presence of the SCS-factors. However, it still shows signs in the correlation analysis to have a relationship with teacher collaboration, unity of purpose, collegial support, and professional development. The individual factors included aside from these had no significant predictive relationship with burnout. This may, however, be due to a lack of sample heterogeneity, with variables such as gender, educational level, and FTE percentage having their data concentrated around specific alternatives, providing limited data on teachers with background characteristics deviating from these.

5.0 Discussion

The purpose of this study was to get a better understanding of whether schools can prevent teacher burnout through the presence of a collaborative school culture. To help explore this issue, three research questions were formulated, which aimed to provide answers to the problem-setting through the use of descriptive- and inferential statistical analyses. The findings of the study were provided through the use of two research instruments, Gruenert and Valentine's (1998) School Culture Survey (SCS) and Kristensen et al.'s (2007) Copenhagen Burnout Inventory (CBI). The discussion part of this study will therefore be based on the findings as well as the literature which has been reviewed. The research questions will be addressed as follows:

RQ1 and 2: will look at the state of burnout and teachers' perception of a collaborative school culture to get an understanding of to what degree they exist in Norwegian elementary schools. This will be done through the use of descriptive statistics, survey items, and score thresholds.

RQ 3, 4, and 5: will be based on the discovered correlations and predictive associations found between the independent (SCS and background characteristics) and dependent factors (CBI). The factors of the collaborative school culture which were deemed significant will be discussed as to how they may be viable tools for organizational improvement.

5.1 The state of burnout in Norwegian elementary school teachers

This paragraph will aim to answer RQ 1, "What presence is there of burnout among Norwegian elementary school teachers?".

After a univariate analysis of the data gathered through the CBI, it was found that Norwegian elementary school teachers scored moderate levels of burnout in personal and work-related domains, while student-related burnout scored below the threshold of 50. The scores for each domain decreased gradually by their specificity, although only the score difference between work-related and student-related burnout was substantial. Although close, there was no substantial difference between the scores of personal and work-related burnout. These findings are in accordance with earlier conducted research which also found that teachers reported higher levels of work-related burnout in comparison to student-related (Fiorilli et al., 2015; Milfont et al., 2008; Piperac et al., 2021). The *differentiation picture*, which explains how specific patterns of burnout are reported depending on the profession, is thereby further supported as it relates to teachers (Kristensen et al., 2005).

As I have previously argued concerning the CBI, this does not necessarily indicate that burnout caused by organizational factors and/or collegial relationships is higher than that caused by the teachers' work with students. But it may, however, indicate that the organizational aspects of working in an elementary school may be exacerbating what is already a demanding job. This may further indicate that schools need to take a more active role in providing their teachers with the necessary job resources

to succeed in their work (van Wingerden et al., 2017). The views of Bakker et al. (2007) are also highly relevant, considering that non-student-related stress also may derive from the insurmountable expectations and conflicting norms both national authorities and school leadership place on them.

The second finding of the univariate analysis was that the point difference between personal and work-related burnout was below the 5-point range that deemed a difference significant, meaning that it was not relevant (Kristensen et al., 2005). This was reconfirmed by the bivariate correlation analysis, which showed a strong correlation between the two subscales. This tells us that teachers in this study made little differentiation between their personal and work-related burnout, possibly meaning that most of their perceived stress derives from work or vice versa.

5.2 The relationship between burnout and the factors of a collaborative school culture

Overall, all the factors of the SCS showed significant negative relationships with all three subscales of burnout, except for between collegial support and work-related burnout. This suggests that the presence of these constructs all to various extents are reducing burnout and may therefore be considered job resources (Demerouti et al., 2001). However, most of the discovered correlations were found to be weak and later proved to have no predictive associations with burnout. These factors were Teacher collaboration, Unity of purpose, and Professional development. On the other hand, Collaborative leadership and Learning partnership were both found to have moderate negative relationships and significant predictive associations with all the domains of burnout. The following sections will aim to address research questions 2-5 by discussing the impact of each school culture factor or lack thereof.

5.2.1 Teacher collaboration and burnout

Teacher collaboration was the second factor aside from collaborative leadership that scored below the outlier threshold of 3, as well as having the lowest score of the factors. However, only two of the subscale's 6 items scored below 3. These were item 15, "Teachers take time to observe each other teaching," and item 33, "Teaching practice disagreements are voiced openly and discussed." Aside from these, all the other items scored within the average range of 3 to 3.5, meaning it can be argued that collaborative practices for the major part are satisfactory. Nonetheless, teacher collaboration only had a weak negative correlation with the three subscales of burnout and had no predictive associations with any of them. A possible reason for its missing impact may be due to the ambiguity of the term. When teachers voluntarily engage in collaborative practices, this may also imply that their experiences with collaboration are productive (Achinstein, 1990). When teachers unwillingly engage in collaboration or perceive it as a source of conflict, it may no longer serve as a resource (Bovbjerg, 2006). Such personal perceptions are not measured by the factor and could be why it has little to no impact on the experienced burnout of the sample population.

5.2.2 Collegial support and personal burnout

Collegial support was found to have significant negative correlations with personal and student-related burnout, but none with work-related burnout. In the univariate analysis, it was found to be the highest-scoring factor of the School Culture Survey, with all of its items scoring above 3.5, meaning that Norwegian elementary school teachers perceive collegial support to be highly present within their schools. After performing the multiple regression analysis, however, collegial support was found to only significantly predict personal burnout. As previously explained about the Copenhagen Burnout Inventory, burnout is considered as "attribution of fatigue and exhaustion to specific domains or spheres in the person's life" (Kristensen et al., 2005, p. 197), meaning that despite collegial support showing some ability to reduce personal burnout, it does not directly apply to the teacher's work. A possible explanation could be made based on the finding that the construct showed strong positive relationships with both professional development and teacher collaboration. Kurtts & Levin (2000) found that the fostering of collegial support among pre-service teachers motivated them to further engage in collaborative activities, an important source of further support for teachers. Creating these strong relationships with colleagues has furthermore shown to be an important protective factor against burnout (Schlichte et al., 2005).

It is also likely that the negating effects of collegial support on personal burnout may be a result of the positive feelings of having strong social connections. They just don't happen to have any productive significance in the context of work. If so, it raises questions as to what degree the potential of collegial support is being utilized among Norwegian teachers, especially considering that they reported item 25, "Teachers work cooperatively in groups," the lowest out of the four items in the construct, an item that is likely to imply how the collegial support is present under structured circumstances.

5.2.3 Professional development and burnout

Professional development maintained acceptable levels of internal consistency, although it should be noted that the subscale dropped substantially from its original reporting. Correlation analysis found weak negative correlations with all the domains of burnout, but regression analysis found no predictive associations. The items of professional development scored overall at normal to high levels. Items 1, 24, and 30 scored above 3.5, while items 9 and 16 scored normal levels.

With many of the descriptive statistics for the items indicating the substantial presence of professional development in this sample, questions should be raised as to why it appears to have no effect on burnout. As presented in the literature review, realized visions of professional development could be both negative and positive in terms of what it offers teachers (Hargreaves & Fullan, 2012; Meagher, 2011). Professional development could therefore be considered as a tool that carries the potential to provide important job resources. The Copenhagen Burnout Inventory is also centered around emotional exhaustion as being the most important trait of burnout, and professional development has

been found in previous studies to not have any significant relationships with this exact trait, despite showing relationships with other burnout symptoms (Kristensen et al., 2005; Özer & Beycioglu, 2010).

5.2.4 Unity of purpose and burnout

The unity of purpose-construct was believed prior to analysis to be subject to potential misunderstanding or incomprehension due to potential differences in practice. However, given that the factor maintained internal consistency according to originally reported values, it contributes to indicate that the construct was sufficiently comprehended among most of the participants.

Unity of purpose was found in correlation analysis to have weak negative correlations with all the domains of burnout. When regression analysis was performed, the factor was found to have no predictive associations with any of the domains of burnout. A possible explanation may be that the understanding of a school mission does not in itself provide teachers with the resources to negate burnout but rather functions as an outline for what teachers should strive towards in the classroom. A clearly outlined school mission statement would give the teachers clearer directives as to what is expected of them (Allen et al., 2018). At the same time, teachers are comfortable with and require certain levels of autonomy in their practice, particularly as teaching methods are concerned (Grant, 1988; Mausethagen & Mølstad, 2015). Therefore, the level of control or freedom a mission statement institutes is a matter of balance.

As with professional development, it can also be argued that the emphasis should be on the content of the mission or mission statement rather than the framework. If mission statements involve working towards goals that do not provide the teachers with the means to prevent burnout, this factor may have no considerable impact.

5.2.5 Collaborative leadership and burnout

After performing the correlation analysis, collaborative leadership was found to have moderate negative correlations with all three domains of burnout in the Copenhagen Burnout Inventory. It recorded almost equal values for personal and work-related, with student-related burnout recording the weakest relationship to the construct. After performing the multiple regression analysis, it was shown that collaborative leadership predicted a reduction in all domains of burnout, with it having the most impact on personal burnout and then becoming lower as the domain gets more specific. Seltzer & Numerof (1988) explain the role of leadership as being important to the prevention of work stress within an organization. When leaders maintain an awareness of the needs of their organization, it effectively prevents the development of burnout among its employees.

As pertains to the details of the differential picture for this factor, collaborative leadership was shown to have a higher β-coefficient for work-related burnout compared to student-related burnout, meaning

that its impact on work-related was higher. This finding may add further credibility to the belief that the part of work-related burnout, which is not explained by work with students, is caused by organizational factors or relationships with colleagues or leadership. It also tells us that leadership is likely to play an important role in the development of organizationally sourced burnout. The impact was lower on student-related burnout, arguably because the effects of leadership are more indirect, through, for example, the encouragement and facilitation of collaborative practices (Leana & Pil, 2006).

The descriptive statistics showed that collaborative leadership practices in Norwegian elementary schools could improve in several areas, as 5 of the construct's 11 items scored below a 3-point average. The low-scoring items concerned a lack of praise for work efforts, the degree to which they are involved in organizational decision-making, experimenting, innovation, and inadequate protection of planning and instruction time.

 Bass and Riggio (2006) write about the importance of exercising leadership that motivates teachers to be proactive participants in the workplace. By developing and utilizing the professional capacities of their teachers, school leaders are more likely to develop a work environment that provides protection against burnout (Hargreaves & Fullan, 2012; Seltzer & Numerof, 1988). For this study, it could be argued that there exist issues with the school leaders' abilities to fully do so. As a consequence, many teachers may feel that they are not developing professionally, which leads to a lack of personal accomplishment and eventually burnout (Özer & Beycioglu, 2010). This lack of development-oriented leadership in Norwegian elementary schools could also be a consequence of the implementation of a result-managed school system, in which school leaders may feel pressured by national authorities towards adopting leadership practices that most efficiently prepares their schools for national high-stakes accountability testing (Faulkner & Cook, 2006; Skedsmo, 2009). Under such a system, teachers lose autonomy, a sense of their professional identity and instead become functionaries for national guidelines (Helle, 2015; Mausethagen & Mølstad, 2015).

That leaders were found to protect instruction and planning time at low rates is another significant issue. It is well known that the school as a workplace can be characterized by high workloads and significant time-pressure, factors that are strongly associated with burnout (Droogenbroeck et al., 2014; Skaalvik & Skaalvik, 2010b, 2018). Teachers may find such a work environment more stressful and unpredictable as it becomes a greater challenge to mentally prepare for the workday.

Item 11, "Leaders take time to praise teachers that perform well," was the lowest scoring item of the subscale. As theorized by Blasé (1982), although rewards extrinsic to the student-teacher relationship, such as salary or praise from leadership, are not central drivers of a teacher's motivation, their absence may cause them substantial stress. Teaching is a profession that requires high levels of emotional investment, and it is not always apparent, particularly for new teachers, whether they are meeting

expectations which often can be conflicting and varying (Bodenheimer & Shuster, 2020). By school leaders validating the work of their teachers not only does it motivate, but it also provides them with an objective role clarity that could prevent them from working beyond their means and eventually burn out (Blasé, 1982; Lyons, 1971; Nordhall et al., 2020).

Two items in the Collaborative leadership subscale scored above 3.5, with these concerning trust in teachers' professional judgment and encouragement towards sharing ideas. It is an interesting finding that teachers report a high degree of trust in professional judgment and also report low levels of encouragement towards educational innovation and experimentation. Mausethagen & Mølstad (2015) found that Norwegian teachers are awarded high levels of professional autonomy within the classroom, to the point that the classroom seems to be understood as a teacher-owned domain in which school leaders are expected to have minimal involvement. A possible consequence may be that leaders offer little support in the development of the individual teacher's practices.

5.2.6 Learning partnership and burnout

Learning partnership fell below the suggested lower limit for an acceptable internal consistency for this study—however, the difference was found to have no significance, meaning that the subscale retains the same internal consistency as the originally reported α-coefficient. The correlation analysis found learning partnership to have a weak negative correlation with personal burnout and a moderate negative correlation with Work-related burnout and Student-related burnout. After then performing the regression analysis, the relationships were confirmed with Learning partnership showing significant negative predictive associations with all domains of burnout. This means we can infer that improved Learning partnerships predict a reduction in teachers' levels of burnout when working with students and other non-student-related stressors.

In the univariate analysis, learning partnership was shown to average within the normal range of 3 to 3.5, with three out of four of its items scoring within. One item (21), "Teachers and parents frequently communicate about student performance," scored above 3.5. This indicates that the Learning partnership is important in terms of teacher-student as well as the teacher-parent relationship considering that investigation of this dynamic was covered by three of the items pertaining to this construct. The fourth item concerned the teacher-student relationship. We will now discuss the construct in the context of the three domains of burnout.

With learning partnership showing negative predictive associations with work-related burnout, we can assume that Learning partnership is an impactful job resource that may reduce stress caused by organizational job demands. Norwegian teachers are expected to develop their practices in collaboration with colleagues (Norwegian Directorate for Education and Training, 2018b). Strong learning partnerships may allow them to do so more efficiently.

Learning partnership's negative predictive association with student-related burnout tells us that information that is provided through communication with parents may be of value when working directly with students. It can also be assumed that teachers who succeed in developing the students' personal responsibility for their own learning, create a learning environment in which education becomes a cooperative effort, rather than something the teacher is expected to impose on to the student, thereby reducing the likelihood of burnout (Helgevold, 2003; Jennings & Greenberg, 2009).

Lastly, learning partnership was found to have a negative impact on personal burnout. Unlike collaborative leadership, where the leader is the subject of the factor, it is the teacher who is central to all learning partnerships. This means that it is also the teacher who is expected to manage them. Literature confirms that unsuccessful mastery of the teacher-student and -parent relationships can be potential sources of stress and, thereby, burnout (Jennings & Greenberg, 2009; Westergård, 2012). And so, burnout, in this case, does not have to be relegated to a specified domain but rather to the construct itself.

5.3 The significance of individual factors on burnout

Two of the chosen individual factors for this study were found to have significant predictive associations with burnout, years of experience, and educational level. Years of experience showed negative predictive associations with work- and student-related burnout in Model 1 (only individual factors). However, when the factors of a collaborative school culture were introduced in Model 2 (containing both collaborative school culture and individual factors), its effect disappeared and became insignificant for both burnout domains. Educational level was found to have a positive predictive association with student-related burnout in Model 1. This effect was retained and even slightly increased in Model 2. In total, only one burnout domain was found to have a significant control model (Model 1), with that being Student-related burnout in which individual factors explained 5.4% of its variance.

The most important finding concerning individual factors was the impact of educational level on student-related burnout, with the results showing that teacher's higher levels of education experienced higher levels of burnout, a phenomenon which has been identified in previously conducted research (Friedman, 1991). He points out two possible reasons as to why, with those being higher career aspirations and more job opportunities. Unlike teachers with 4-year degrees (which were standard in Norway until 2017), teachers with MA's may have professional specializations which are valuable outside the field of teaching. And so, they may put up with less exposure to stressful situations before they start considering other options.

Although the teacher's years of experience was found to have no direct effect on burnout, there are reasons to believe that its impact instead may be indirect. The factor was found to have weak positive correlations with three factors of a collaborative school culture (SCS), those being learning

partnership, unity of purpose, professional development, and teacher collaboration, with the first one directly predicting burnout. More experienced teachers thereby report that they enjoy better learning partnerships, work in environments that are more professionally unified, and have better facilitation for collaborative practices and professional development. However, given the low strength of these coefficients, they should be held to some scrutiny as to what lies behind the concept of experience. As Chang (2009) points out, organizational factors are perceived through the lens of individual factors, and we know that developing the necessary personal resources and skills to handle the demands of the teaching profession must be acquired over time (Helle, 2011; Lasky, 2000; van Wingerden et al., 2017). Unlike newly educated teachers, more experienced ones are therefore likely to have established practices that make them less organizationally dependent.

5.4 Implications

This study has shown the important role a collaborative school culture has the potential to play in reducing burnout in Norwegian elementary school teachers, specifically in terms of the significant impact of leadership as well as developing strong teacher-parent and teacher-student relationships. The significant negative β-coefficients found for collaborative leadership and learning partnership show that these can be considered valuable

As Gajda & Koliba (2008) explain, school leaders, act as role models for their teachers, and the results of this study have shown how their presence affects a school's ability or incapacity to develop a culture for collaboration in all of its aspects. An implication for this study would therefore be that school leaders need to practice more awareness as to roles they may have in reducing or causing teachers to burn out, particularly on the organizational level. School leaders are important facilitators for the development of the individual teacher's professional practice as well as a collaborative school culture, resources which have a further effect on the more specific domains of the school, such as work with students (Hargreaves & Fullan, 2012; Leana & Pil, 2006). By maintaining an awareness of the teachers' needs in terms of organizational support, the unnecessary stresses of both student and non-student-related work can be reduced through the development of their personal resources (Yang & Xu, 2021).

School leaders should also turn more attention towards rewarding and encouraging educational innovation and experimentation among their teachers, although it could be argued given a centralized education system that such efforts need to begin with national authorities (Helle, 2015). It could further be argued that, for example, the use of high-stakes testing for accountability purposes is not the ideal way of creating a professional environment that yields a high-quality education (Helle, 2015; Sahlberg, 2011). This view is supported by Sjøberg (2014), who adds that their use may affect how policymakers and school leaders target their efforts. By instead restoring confidence in teachers being professionals, school leaders and owners may at local levels be more likely to adopt strategies and

leadership qualities that are geared towards stimulating innovation and experimenting rather than teacher-centered instruction methods.

This study found the teacher's experience of their learning partnerships to be of importance in combating burnout as these may serve as valuable sources of information as to how to teach their students. However, the challenge of understanding and dealing with an increasingly diverse population of students require that teachers are given the appropriate support and encouragement to master the skill of establishing productive teacher-parent and -student relationships (Lasky, 2000; Nordahl, 2009). Teachers should learn how to deal with potentially difficult situations that may arise in communication with parents (Andersson, 1999). For the teacher-student relationships, they should learn how to set expectations that lead the students towards becoming proactive participants in their personal learning endeavors (Helgevold, 2003).

Finally, there are indications in this study of highly educated teachers being more likely to burn out due to work with students. However, it may be difficult to convince teachers with other career aspirations to stay in the profession. Questions should probably be asked as to how the school as a career field is appropriately providing teachers with the necessary secondary resources to negate burnout in highly competent teachers and thereby motivate them to stay (Blasé, 1982). Given that no individual factors played a significant role until the student-related domain, it may also indicate that these may play a bigger role as work becomes more interpersonally perceived.

As predictability is concerned, non-significant factors such as unity of purpose, teacher collaboration, and professional development had in common that they all emphasized the structural aspects of collaboration (e.g. ways of collaborating, understanding mission statements, and developing knowledge), rather than the interpersonal (e.g. relationships with leaders, teachers or parents). A reason for this may be as this study argued that they have ambiguous potential, something which was preemptively suggested by Gruenert and Whitaker (2015), who referred to school culture as a framework in which it is up to its teachers and various staff to utilize the tools it provides properly. Schools have and may still be subject to influencing agendas external to that of its faculty and losses of confidence in the teacher's professional capabilities, which are arguably affecting to what degree these structures are utilized in a manner that considers the teacher's needs for negating the harmful effect of stressors in the workplace (Hargreaves & Fullan, 2012; Mausethagen & Mølstad, 2015; Sjøberg, 2014). This, however, doesn't necessarily mean that ways of structuring collaboration aren't valuable, but rather that there may be untapped potential in types of activities and behavior which were found to score poorly. The lowest scoring item (15), reported that very few teachers observed each other's lessons. If leadership invests time and effort into such a deficiency, it could open further possibilities for professional discourse and interpersonal engagement that would protect against burnout (Gajda & Koliba, 2008; Vangrieken et al., 2015). Future efforts should therefore consider

looking into what types of professional development, missions, and educational practice teachers perceive as valuable not only to the learning of the student but their own well-being and development of confidence as professionals.

5.4.1 Implications for further research

Given the significant effect of collaborative leadership and learning partnership on burnout, it could be beneficial to look further into the specific practical solutions which lead to a reduction in burnout at the organizational and interpersonal levels. This could be done qualitatively through the use of narrative research or case studies (Creswell, 2012). In this manner, it would be possible to look at potentially stress-inducing situations or psychological experiences which are related to the two cultural factors.

As written by Guglielmi & Tatrow (1998), in the field of burnout research, there is a lack of multivariate and particularly longitudinal research designs. And so, although inferences can be drawn about burnout, most research either does not control for potential cofactors or if levels of burnout actually change over time depending on a given stimulus. A possible suggestion would therefore be to investigate the effects of reward systems or intervention programs, similar to the research of van Wingerden et al. (2017), and look at how they affect burnout over two or more time points.

5.5 Limitations

There are some limitations to this study that are important to highlight. First of all, the data collection process cannot be considered a product of completely randomized sampling. This was intended by randomly selecting schools across the country to participate. However, none of the 60 contacted schools replied with interest to participate. Since survey participants were found through providing links to the survey on Facebook groups intended for teachers, only a limited part of the target population have been given a chance to participate. Although the statistical distribution of the teachers found them to be closely representative of the population in terms of geography, FTE percentage, and gender, there are many potential biases that may not be accounted for. It is, for example, unclear what types of teachers which are likely to join internet forums. The results of this study are only a product of randomized sampling to a limited extent, and as a consequence, its generalizability is limited in this regard.

It must be taken to account that the results of this study are based on self-reporting, which is the common case with studies that rely on surveys to gather data. Self-reporting makes it, however, impossible for the researcher to control for possible misinterpretations of the survey items. It is also difficult to know whether participants may have been swayed to take the test by personal interest or to give answers that manipulate the data in a certain direction. Teachers may, for example, have been more inclined to participate out of a need to communicate frustrations about their workplace in comparison who those who are content.

The two School Culture Survey-factors; teacher collaboration and professional development were found to have significantly lower Cronbach's α-coefficients than what was originally reported. Compared to the Copenhagen Burnout Inventory, the School Culture Survey asks the teacher to assess the presence of specific types of behavior or activities in their workplace. It is therefore likely that these have been subject to some inconsistent interpretation, which may go back to the issue of language or ecological differences between school systems. The findings of these two factors should therefore be treated with some discretion, although both retained acceptable levels of internal consistency.

It should also be acknowledged that adding single word translations is unpreferable and probably indicates in itself that a survey requires modification or translation. It is therefore recommended for future research that the School Culture Survey is translated and validated before use.

6.0 Conclusion

Research on the causes of teacher burnout shows that that various forms of organizational support are relevant in the prevention of teacher burnout. The wish was to further assess the effects of other possible resources which could aid towards this cause. And so, this study aimed to explore the relationship between factors of a collaborative school culture and burnout, in the light of the JD-R model.

The findings showed that particularly two factors, collaborative leadership and learning partnership are significant predictors of reduced teacher burnout that relate to work with students and work in general. Collegial support was also found to be a significant predictor, although it couldn't be allocated to any aspect of the teacher's workplace. In accordance with Hargreaves & Fullan's (2012) theory of professional capital, it can be concluded that the professional relationships within a school build social capital that provides their teachers with valuable resources in the form of acknowledgment, opportunities for development, and valuable knowledge that aids and motivates the teacher in their work. Collaborative leadership shows itself as particularly important in being able to affect the non-student-related aspects of a teacher's work. It is therefore argued that leaders who involve themselves in the development of their teachers, acknowledge their efforts and accomplishments, and involve them in decision-making can make a significant impact on reducing teacher burnout. It is important to note that analyses showed the study to only explain a limited amount of its causality. This shows that teacher burnout, as suggested by Chang (2009), is a multifactorial issue and that correctly diagnosing its sources requires a unique consideration of the individual, the organizational, and the transactional factors of a school.

This study suggests that school leaders need to increase awareness around how their own leadership practices and how they are contributing to better the work conditions of their teachers. By moving away from high-stakes testing for accountability purposes, school leaders may also be more inclined to reprioritize their efforts. It also suggests that teachers need to be given the necessary support to master the development of positive and productive relationships with parents and students.

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Appendix A: Descriptive statistics of all items included in the SCS and CBI

Questions can be found in the complete survey in Appendix B. All items are arranged in the same order as in the complete survey.

School Culture Survey (SCS)

prode = Professional development, colead = Collaborative leadership, teco = Teacher collaboration, upu = Unity of purpose, lepa = Learning partnership, cosu = Collegial support

Item	Mean	Std. deviation
prode1	3.779	0.903
colead2	3.395	1.114
teco3	3.107	1.141
cosu4	4.028	0.875
upu5	4.071	0.818
lepa6	3.067	0.955
colead7	3.664	1.145
teco8	3.119	1.242
prode9	3.229	1.152
cosu10	4.304	0.835
colead11	2.593	1.163
upu12	2.917	1.038
lepa13	3.217	1.014
colead14	2.933	1.072
teco15	1.818	0.912
prode16	3.336	1.138
cosu17	4.028	0.910
colead18	3.257	1.113
upu19	3.941	0.943
colead20	3.328	1.119
lepa21	3.759	0.883
colead22	3.308	1.127
teco23	3.063	1.071
prode24	3.719	0.871
cosu25	3.640	1.070
colead26	2.739	1.153
upu27	3.233	0.962
colead28	2.964	1.135
teco29	3.296	1.067
prode30	3.672	0.938
upu31	3.478	0.857
colead32	2.664	1.166
teco33	2.632	1.010
colead34	3.747	1.027
lepa35	3.146	1.027

Copenhagen Burnout Inventory (CBI)

personal = Personal burnout, work = Work-related burnout, student = Student (Client) – related burnout

Item	Mean	Std. Deviation
personal1	4.028	0.747
work1	4.095	0.791
student3	2.842	0.921
personal4	3.545	0.884
work5	3.518	0.990
work6	3.478	0.819
personal7	3.585	0.876
student8	2.549	0.957
work9	3.889	0.919
personal10	3.036	1.132
student11	2.696	1.007
work12	2.759	1.092
personal13	3.368	0.915
personal14	2.708	1.070
work15	2.368	1.006
student16	3.269	1.137
work17	2.668	0.935
student18	2.411	1.002
student19	3.427	1.225

Invitasjon til og informasjon om en spørreundersøkelse i forbindelse med masteroppgave, vår 2021

Mitt navn er Aleksander Vedvik og jeg gjennomfører for øyeblikket en mastergrad i Utdanningsvitenskap ved Universitetet i Stavanger. Som avsluttende del av utdanningen, skriver jeg en oppgave med følgende problemstilling:

Hvordan kan skolene skape sterkere samarbeidskulturer for å forebygge utbrenthet blant lærere?

For å undersøke dette, skal jeg gjennomføre en digital spørreskjemaundersøkelse rettet mot grunnskolelærere som underviser i barneskolen (1-7.trinn) og som har minst ett ansettelsesforhold på 50%.

Formål og info om undersøkelsen

Motivasjonen bak undersøkelsen er mye grunnet i det økende arbeidstrykket som har kommet med Covid-19. Stadig flere lærere har rapportert om at de er overarbeidet. Det kan derfor være viktig å finne ut hva skolene kan gjøre for å redusere dette, særlig med tanke på konsekvensene det kan ha for elevenes læring.

Spørsmålene vil omhandle din personlige opplevelse av jobben så vel som arbeidskulturen ved din skole. Foruten spørsmål som omhandler deg selv, inkluderer dette generiske påstander om lærerne, elevene og ledelsen ved din skole.

Utenom disse, består kjernen av undersøkelsen av 54 spørsmål og tar maks 15 minutter å besvare. Undersøkelsen må gjennomføres på engelsk da jeg benytter spørreskjema som er utviklet og brukt i tidligere relevant forskning.-Beskrivelser av fremmede ord vil derimot legges ved hvert spørsmål for å gjøre det lettere å besvare.

Konfidensialitet og samtykke

Du samtykker til at dataene kan brukes i oppgaven i det du velger å besvare undersøkelsen, men dette kan når som helst trekkes ved at du på ny besøker linken. Evt. svar kan også redigeres i etterkant om dette skulle være ønskelig. Deltakelsen er frivillig og både skolen og deltakende lærere vil være fullstendig anonyme. Skolene vil kun nevnes i forhold til antallet som er blitt undersøkt.

Oppgaven er meldt inn til NSD og er blitt godkjent.

Institutt for grunnskolelærerutdanning, idrett og spesialpedagogikk ved Universitetet i Stavanger er ansvarlig for prosjektet. Ved spørsmål om innholdet/spørsmålene i undersøkelsen kan jeg kontaktes på mail 239748@uis.no eller tlf 98 99 51 96. Når det gjelder mer generelle spørsmål kan min veileder, Professor Tarja Irene Tikkanen ved UiS kontaktes på telefon 51 83 13 01 eller tarja.tikkanen@uis.no

Tusen takk for ditt evt. bidrag til forskning på disse viktige temaene!

Mvh, Aleksander Vedvik

Application for use of the School Culture Survey (SCS)

How can schools create stronger collaborative cultures to prevent teacher burnout?

Background and research goal

The idea for this Master's Thesis study has its origins in the drastic changes in working and learning conditions in our schools, brought on by Covid-19. Many teachers have since the outbreak reported that they consider leaving their jobs as a result.

Looking into if there are possible preventative effects of school culture on teacher burnout could therefore be important. Also, existing research supports a connection between teacher burnout and their ability to support their students' academic efforts in the classroom (Chang, 2009; Friedman, 2000; Klem & Connell, 2004). The goal of the study is therefore to investigate how schools may create stronger collaborative cultures to prevent burnout in Norwegian elementary school teachers.

Conceptual Design

The figure below shows the factors incorporated in the conceptual framework and illustrates their relationships. The framework is based on a meta-analysis on teacher burnout (Chang, 2009).

The data will be collected from teachers in English, using two types of questionnaires and a set of questions about demographics and work-related background information.

1. For school culture, the School Culture Survey (SCS) created by Steve Gruenert and Jerry Valentine is intended to be used. The survey is relevant for this research due to its emphasis on the collaborative qualities of an organization (Gruenert & Whitaker, 2015).
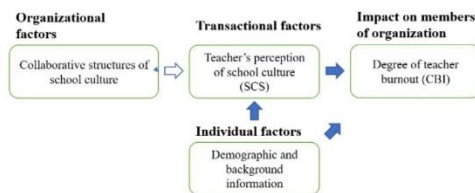
2. For measuring the teacher's degree of burnout, a survey devised by Kristensen, Borritz, Villadsen, & Christensen (2005) called the Copenhagen Burnout Inventory (CBI) will be used. This instrument looks at burnout in three dimensions named personal, work-related and client-related burnout. The survey has been validated for research on teachers (Fiorilli et al., 2015; Kristensen et al., 2005).

Each participant will be asked to answer demographic and work-related background questions regarding gender, education level, years of experience in teaching and FTE-percentage (total hours worked per week). These will serve as control variables that will account for how individual factors affect the relationship between school culture and teacher burnout. What county they come from will also be asked, but only for the purpose of showing the geographic representation of the sample.

Population and statistical treatments

Given that the total population of elementary + lower secondary-school (1st-10th grade) teachers in Norway is as of the school year 2019/20, **76 699**, I have calculated that a sample size of about **383** participants is necessary to satisfy a 95% confidence level. Only Norwegian elementary school teachers with an FTE of at least **50%** at a single school will be invited to participate. Regarding data collection, the principals of initially about 40 schools spread across all 11 of Norways counties will be contacted and asked to forward the survey to their teaching staff if they agree to. Norwegian teacher organizations and unions will also be contacted in the same manner. I will have no direct communication with the teachers who choose to participate in this project.

The following statistical treatments will be performed:

1. Descriptive statistics: frequency distributions, means, standard deviations of school culture, teacher burnout, demographic and background information will be presented.

2. Correlation analysis: The primary focus of this analysis will be on the correlations between school culture and teacher burnout, and their correlations with the control variables (years of experience,

educational level and FTE-percentage). Internal correlations of school culture and burnout will be looked at secondarily.

3. Multiple regression analysis: Independent variables: Factors of school culture and control variables (demographic and work-related background information).

Dependent variables: Factors of burnout: Personal, work-related and client related burnout.

A separate analysis will be done for each of the three factors of burnout in two models, using hierarchical regression analysis. The two models will have the following independent variables:

1. Control variables (gender, years of work experience, FTE-percentage and educational level)

2. Control variables and factors of school culture.

Statement of affirmation regarding data confidentiality
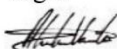
I, Aleksander Sesi Babajide Vedvik, affirm that the privacy right of all respondents will be protected and that no data will be used in any manner for the purposes of personnel evaluation, supervision or employment review.

Data collected via the SCS will be anonymous as services for secure data transfer and storage available at the University of Stavanger will be used. The project will follow GDPR guidelines and ethical approval has been sought from the Norwegian Centre for Research Data (NSD).

As the thesis will be written in English, a copy will be provided to Mr. Jerry Valentine and Steve Gruenert at the time of completion.

Sign.

Aleksander S. B. Vedvik

Graduate student at the University of Stavanger

Graduate supervisor:

Tarja Irene Tikkanen

Professor of Education at the University of Stavanger.

From: Valentine, Jerry W. (Emeritus)
Sent: Tuesday, 11 May 2021 17:49
To: Aleksander Vedvik; Steve.Gruenert@indstate.edu
Cc: Tarja Irene Tikkanen
Subject: RE: Application for use of the School Culture Survey

Aleksander Vedvik:

I have reviewed your application to use the School Culture Survey for your research project at the University of Stavanger. Your proposal was well-written and clearly indicated your intent to use the Survey in a proper manner. I am pleased to provide you with permission to use the Survey in your study. Dr. Gruenert and I wish you the very best of luck with your study and we look forward to reading your findings when the study is completed.

Have a pleasant and productive day.

Jerry Valentine

Jerry Valentine, Ph.D.
Professor Emeritus
University of Missouri
ValentineJ@missouri.edu
www.ipistudentengagement.com
Mail address:
1266 Sunset Drive
Columbia, MO 65203

Appendix D: Verdict of anonymity from NSD

NSD NORSK SENTER FOR FORSKNINGSDATA

NSD sin vurdering

Prosjekttittel

Skolekultur som forebygger av utbrenthet blant grunnskolelærere

Referansenummer

709833

Registrert

11.05.2021 av Aleksander Sesi Babajide Vedvik - as.vedvik@stud.uis.no

Behandlingsansvarlig institusjon

Universitetet i Stavanger / Fakultet for utdanningsvitenskap og humaniora / Institutt for grunnskolelærerutdanning, idrett og spesialpedagogikk

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Tarja Irene Tikkanen, tarja.tikkanen@uis.no, tlf: 51831301

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Aleksander Vedvik, aleksander_vedvik@hotmail.com, tlf: 98995196

Prosjektperiode

17.05.2021 - 31.08.2021

Status

11.06.2021 - Vurdert anonym

Vurdering (1)

11.06.2021 - Vurdert anonym

Det er vår vurdering at det ikke skal behandles direkte eller indirekte opplysninger som kan identifisere enkeltpersoner i dette prosjektet, så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 11.06.2021 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD.

Prosjektet trenger derfor ikke en vurdering fra NSD.

HVA MÅ DU GJØRE DERSOM DU LIKEVEL SKAL BEHANDLE PERSONOPPLYSNINGER?
Dersom prosjektopplegget endres og det likevel blir aktuelt å behandle personopplysninger må du melde dette til NSD ved å oppdatere meldeskjemaet. Vent på svar før du setter i gang med behandlingen av

personopplysninger.

VI AVSLUTTER OPPFØLGING AV PROSJEKTET
Siden prosjektet ikke behandler personopplysninger avslutter vi all videre oppfølging.

Kontaktperson hos NSD: Henrik Netland Svensen
Lykke til med prosjektet!

Appendix E: Distributed survey

Undersøkelse om skolekultur og stress blant lærere

Side 1

Obligatoriske felter er merket med denne stjernen *

Denne undersøkelsen vil stille spørsmål relatert til din opplevelse av skolekultur og stress/utbrenthet.

Deltakelse i spørreundersøkelsen er frivillig. Dersom du svarer, har du gitt samtykke til å delta. Dersom du ikke vil delta, kan du la være å svare. Dersom du ombestemmer deg underveis i utspørringen, kan du være å levere inn skjemaet. Etter at skjemaet er levert, kan også svarene når som helst trekkes frem til datainnsamlingsperioden er over.

Svarene er levert anonymt og kan ikke spores tilbake til deg, heller ikke via indirekte opplysninger eller skjulte elektroniske spor som IP-adresse.

Takk for at du velger å delta i dette viktige prosjektet!

Bakgrunnsopplysninger

Hva er ditt kjønn? *

- ○ Mann
- ○ Kvinne

Oppgi ditt bostedsfylke. *

Velg …

Hvor mange år med erfaring har du som lærer i grunnskolen? *

- ○ Under 2 år
- ○ 2-4 år
- ○ 5-9 år
- ○ 10-14 år
- ○ 15-20 år
- ○ 21-30 år
- ○ Over 30 år

Hva er ditt høyeste utdanningsnivå? *

Besvares utfra stillingskoden du tilhører.

- ○ Lærer u/ godkjent utdanning, videregående eller lavere
- ○ Lærer u/ godkjent utdanning, bachelor
- ○ Lærer u/ godkjent utdanning, master
- ○ Lærer
- ○ Adjunkt
- ○ Adjunkt m/tillegg
- ○ Lektor
- ○ Lektor m/tillegg

Hva er din samlede stillingsprosent som lærer i grunnskolen? *

Har du flere deltidsstillinger som lærer, kan du legge disse sammen.

- ○ 50-60%
- ○ 61-80%
- ○ 81-99%
- ○ 100%

▦ Sideskift

Side 2

Obligatoriske felter er merket med denne stjernen *

Undersøkelsens språk vil herfra og utover være på Engelsk. Beskrivelser av fremmede ord vil legges ved hvert spørsmål.

▦ Sideskift

Side 3

Obligatoriske felter er merket med denne stjernen *

Spørsmål om skolekultur

I denne delen av undersøkelsen, bestående av 35 spørsmål, skal du ta stilling til påstander om skolekultur utfra skolen du selv jobber ved.

Arbeider du deltid ved flere skoler, tar du utgangspunkt i den stillingen som er 50% eller høyere når du besvarer spørsmålene. Har du to 50%-stillinger, velger du selv hvilken av dem du vil svare utfra.

1. Teachers utilize professional networks to obtain information and resources for classroom instruction. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

2. Leaders value teachers' ideas. *

value (verb) - verdsette

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

3. Teachers have opportunities for dialogue and planning across grades and subjects. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

---

4. Teachers trust each other *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

5. Teachers support the mission of the school. *

mission - oppdrag (hvordan skolen arbeider mot et mål)

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

6. Teachers and parents have common expectations for student performance. *

common - felles

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

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7. Leaders in this school trust the professional judgments of teachers. *

judgement - dømmekraft

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

8. Teachers spend considerable time planning together. *

considerable - betraktelig

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

9. Teachers regularly seek ideas from seminars, colleagues, and conferences. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

10. Teachers are willing to help out whenever there is a problem. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

11. Leaders take time to praise teachers that perform well. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

12. The school mission provides a clear sense of direction for teachers. *

mission - oppdrag

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

13. Parents trust teachers' professional judgments. *

judgement - dømmekraft

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

14. Teachers are involved in the decision-making process. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

15. Teachers take time to observe each other teaching. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

16. Professional development is valued by the faculty. *

faculty - lærerstaben ved en skole

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

17. Teachers' ideas are valued by other teachers. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

18. Leaders in our school facilitate teachers working together. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi [ ]

11. Leaders take time to praise teachers that perform well.

19. Teachers understand the mission of the school. *

mission - oppdrag

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

20. Teachers are kept informed on current issues in the school. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

21. Teachers and parents communicate frequently about student performance. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

22. My involvement in policy or decision making is taken seriously. *

policy - regel

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

23. Teachers are generally aware of what other teachers are teaching. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

24. Teachers maintain a current knowledge base about the learning process. *

current - oppdatert

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

25. Teachers work cooperatively in groups. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

26. Teachers are rewarded for experimenting with new ideas and techniques. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

27. The school mission statement reflects the values of the community. *

mission - oppdrag
values (substantiv) - verdier
community - lokalsamfunn

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

28. Leaders support risk-taking and innovation in teaching. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

29. Teachers work together to develop and evaluate programs and projects. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

30. The faculty values school improvement. *

faculty - lærerstaben ved en skole

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi

31. Teaching performance reflects the mission of the school. *

mission - oppdrag

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi ____

32. Administrators protect instruction and planning time. *

instruction - undervisning

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi ____

33. Teaching practice disagreements are voiced openly and discussed. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi ____

34. Teachers are encouraged to share ideas. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi ____

35. Students generally accept responsibility for their schooling, for example they engage mentally in class and complete homework assignments. *

Strongly disagree		Undecided		Strongly agree
1	2	3	4	5

Verdi ____

Sideskift

Side 4

Obligatoriske felter er merket med denne stjernen *

Spørsmål om stress blant lærere

I denne siste delen av undersøkelsen, bestående av 19 spørsmål, vil du bli bedt om om å besvare utfra frekvens. Altså, hvor ofte du personlig opplever det som nevnes i påstandene.

Har du flere deltidsstillinger, svarer du utfra din helheltige opplevelse av disse.

1. How often do you feel tired? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

2. Is your work emotionally exhausting. *

exhausted - utmattet

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

3. Do you find it hard to work with students? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

4. How often are you physically exhausted? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

5. Do you feel burnt out because of your work? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

6. Does your work frustrate you? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

7. How often are you emotionally exhausted? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

8. Do you find it frustrating to work with students? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

9. Do you feel worn out at the end of the working day? *

Never		Sometimes		Always
1	2	3	4	5

Verdi ____

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10. How often do you think: "I can't take it anymore"? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

11. Does it drain your energy to work with students? *

drain - tappe

Never		Sometimes		Always
1	2	3	4	5

Verdi

12. Are you exhausted in the morning at the thought of another day at work? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

13. How often do you feel worn out? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

14. How often do you feel weak and susceptible to illness? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

15. Do you feel that every working hour is tiring for you? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

16. Do you feel that you give more than you get back when you work with students? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

17. Do you have enough energy for family and friends during leisure time *

leisure - fritid

Never		Sometimes		Always
1	2	3	4	5

Verdi

18. Are you tired of working with students? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

19. Do you sometimes wonder how long you will be able to continue working with students? *

Never		Sometimes		Always
1	2	3	4	5

Verdi

Se nylige endringer i Nettskje

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