PROFILES OF TEACHER CONTEXT AND COMPETENCE TO PREDICT EMOTIONAL STATE: LATENT PROFILE ANALYSIS

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ABSTRACT

This dissertation study reports on a survey of teacher wellbeing during the COVID-19 pandemic. Using an ecological, strengths-based adaptation to Herman and colleagues' (2020) 3C model for teacher wellbeing, the current study examined teachers' contexts, working conditions supporting their feelings of competence, and coping (i.e., positive emotional state). Measures included the Measure of Stressors and Supports for Teachers (MOST) and COVID-19-specific measures created by the research team. The research was guided by the following questions: (1) What profiles emerge from teachers' ratings of their context and competence? (2) Do these profiles of context and competence predict teachers' abilities to cope, as measured by their positive emotional state? I hypothesized that four profiles would emerge: high context-high competence, low context-low competence, high context-low competence, and low context-high competence and that these profiles would be predictive of teachers' emotional states. Using latent profile analysis, I found that the best-fitting solution had three profiles with high, medium, or low scores across all measures. A four-profile solution is also discussed. I discuss the findings and future research directions aimed at promoting teacher well-being in schools.

POSITIONALITY STATEMENT AND ACKNOWLEDGEMENTS

As a former kindergarten teacher in urban schools, I know firsthand the joys and challenges that teaching brings. Before the pandemic, educators were already stretched thin with heavy workloads, high-stakes testing, and intensive schedules. In addition to their formal role of educating children, teachers are expected to wear the hats of a therapist, disciplinarian, parent, childcare provider, and more – for a salary many professionals with similar education and training would find unacceptable. When the pandemic hit, my heart ached for teachers who had to plan their lessons from scratch, adapt to ever-changing guidance, enter classrooms without adequate safety measures, and support children through immense trauma while somehow managing responsibilities at home.

I watched as the public opinion of teachers swung wildly from "national heroes" to "babysitters who don't want to work." I listened to my teacher friends and family members, hearing stories of suffering and of remarkable resilience, and I felt called to capture this moment in history. An already burdened teacher workforce has been pushed to the brink, and I truly believe that supporting teacher wellbeing is more crucial in this moment than ever before. Teachers have the vital job of preparing our children for a brighter and more just future, and beyond their role of service to others, teachers are human and deserve working conditions that allow them to live healthy, balanced lives. It is my sincere hope that this project inspires both empathy and action toward improving the working conditions of teachers.

To all of the educators in my life – thank you. You will always be heroes to me.

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Making it through graduate school has taken a village, and I am so grateful for mine. May I continue to make 10-year-old me proud by having the courage to do things scared, knowing my village will catch me if I fall.

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CHAPTER 1:

INTRODUCTION

Occupational well-being includes the affective, social, professional, cognitive, and psychosomatic experiences of one's job (Van Horn et al., 2004). Occupational stress is associated with seven of the ten leading causes of death worldwide, with cardiovascular disease as the leading cause of death (Quick & Henderson, 2016). According to a 2014 Gallup poll, 46% of K-12 teachers experience high stress levels, which was the highest percentage rate among all occupational groups (Greenberg et al., 2016). A 2017 survey of 5,000 teachers across the U.S. also identified stress as a significant problem with the majority of teacher respondents (61%) reporting that their job is 'often' or 'always' stressful (Weingarten et al., 2017). Teachers experience a wide range of stressors in their job including low pay, intense workloads, high levels of accountability, and secondary traumatic stress (Richards et al., 2016).

When occupational stress becomes overwhelming and unmanageable, workers are at risk of experiencing burnout. Burnout is a psychological construct with three components: emotional exhaustion, depersonalization, and feelings of reduced personal accomplishment (Maslach et al., 1986). Emotional exhaustion is the expenditure of emotional and psychological resources. Depersonalization refers to negative perceptions and attitudes of an individual toward their clients. Decreased personal accomplishment is the perception of a lack of success in the workplace. In an educational context, burnout predicts teachers' intent to leave the field (Bettini et al., 2017; Brunsting et al., 2014). According to the 2014 Gallup poll, nearly half of the U.S. teachers who completed the

survey were actively looking for a different job or opportunity to change professions (Greenberg et al., 2016). More recent data show that high stress continues to contribute to teachers' decisions to leave the profession (Diliberti et al., 2021).

Teacher Stress Before and During the Pandemic

Teachers' feelings of emotional exhaustion, a key component of burnout, have been linked to teachers' intent to stay in the profession (Bettini et al., 2017; Goddard & Goddard, 2006; Martin et al., 2012). Since the early 1990s, around 8% of public school teachers have left the profession each year, with stress cited as the most common reason for leaving (Dilberti et al., 2021). An additional 8% of teachers leave their schools for other schools, leading to an overall turnover rate around 16% (NCES, 2019). Overall turnover rates are highest in the Southern U.S. as well as in schools serving primarily students of color (Carver-Thomas & Darling-Hammond, 2017). Given the high levels of turnover in the teaching profession, particularly in under-resourced schools, there is an urgent need to understand the link between teacher well-being and turnover (Sutcher et al., 2016). Declines in enrollment from teacher preparation programs have led to shortages in most U.S. States, and especially in rural areas, further exacerbating the impact of teachers leaving (Anderson et al., 2021).

The COVID-19 pandemic has brought upon a new set of stressors for teachers. A recent study by Anderson and colleagues (2021) identified the main stressors teachers experienced during the pandemic. Teachers shared that they felt a lack of connection to their students due to physical distance as well as a lack of certainty around distance learning. Additionally, they felt stressed by the increased workload in translating their materials to digital formats as well as learning new technologies and instructional

delivery modes (Anderson et al., 2021). The National Education Association's 2021 poll indicated that 28% of all educators said the COVID-19 pandemic has made them more likely to retire early or leave the profession. In 2021, half of all teachers who left the profession cited COVID-19 as the main reason; other top reasons included stress and insufficient pay to merit the risk of teaching during the pandemic (Diliberti et al., 2021). Overall, findings show that the pandemic has further exacerbated the teacher stress crisis in the United States.

Experiencing high levels of stress is not only harmful to the teachers themselves, but it also affects the academic and emotional functioning of students in their classrooms. Poor teacher mental health is associated with lower quality instruction as well as increased likelihood for burnout and school turnover (e.g., Allensworth et al., 2009; Greenberg et al., 2016; Sandilos et al., 2018). Students in classrooms with teachers experiencing burnout show lower levels of academic achievement (Baker et al., 2021). Furthermore, Ramberg et al. (2020) found that teacher-reported stress, fatigue, and depressed mood were associated with students' ratings of satisfaction with their schools and their perception of teacher caring. Given the stressors faced by teachers in schools and the impact teacher stress has on student outcomes, educational researchers have sought to develop conceptual models to better understand and enhance teacher well-being.

Models of Teacher Stress and Well-Being

Research on teacher stress is often focused on negative outcomes such as burnout and attrition from the field. While understanding why and when some teachers leave the profession is incredibly important, it is also essential to understand why other teachers

choose to stay. By understanding the personal and environmental factors that allow teachers to thrive, it creates possibilities for actionable interventions that could help more teachers cope with the stress of their jobs. Thus, in addition to capturing information on teacher stressors, this research is focused on capturing a broader sense of teacher well-being. These important precursors to job satisfaction include positive attitudes toward the profession, joy and engagement in the classroom, and/or a sense of belonging to their school communities (Jennings & Greenberg, 2009; Renshaw et al., 2015; Skaalvik & Skaalvik, 2011).

Several models have been used to conceptualize teacher stress and well-being in the past four decades: the transactional theory of stress, stress mindset theory, and the prosocial classroom theory (Herman et al., 2020). The transactional theory of stress is based on the idea that when an individual feels unable to adapt to the demands of their environment, they experience stress; the process of finding adaptations is considered coping (Herman et al., 2020; Lazarus & Folkman, 1984). Stress mindset theory is focused on individuals' attitudes toward stress; individuals who see stress as an opportunity for growth tend to have more positive health outcomes (Crum et al., 2017). The prosocial classroom theory posits that teacher social-emotional competence can be taught, and high levels of social-emotional competence can reduce teachers' stress and the impact of that stress on their students (Jennings & Greenberg, 2009). All three of the above theories share a focus on teacher mental health from a positive-psychology lens by considering the ways in which individuals cope; however, the models lack consideration for the context of the school at large and the resources available to teachers.

Herman and colleagues (2020) conceptualized a theory of teacher stress based on their research: The Coping-Competence-Context (3C) model (see Figure 1). This model contains three pathways that impact teacher well-being. The Coping pathway consists of teachers' individual characteristics such as their mindset and coping strategies that contribute to how they deal with stress. The Competence pathway is focused on teaching skills such as instruction and classroom management. The context includes school-level practices and administrative support (Herman et al., 2020). Building on Herman and colleagues (2020) 3C model, the current research examined a wider range of working conditions aligned with both teachers' contexts and feelings of competence during the COVID-19 pandemic.

The Current Study

Aligned with the Coping-Competence-Context (3C) model, the present study examined multiple aspects of the school context that contribute to teachers' abilities to cope with job demands. These contextual factors include teachers' relationships with school leaders, feelings of school belonging, relationships with colleagues, relationships with parents, and feelings of safety (Eldor & Shoshani, 2016; Mehta et al., 2013; O'Brennan et al., 2017, Skaalvik & Skaalvik, 2011). Given the safety concerns brought on by the pandemic, the study also investigated teachers' level of agreement with their administrators' decisions related to COVID-19 safety. With regard to competence, teachers' self-efficacy, planning time, and professional development all impact their feelings of effectiveness in the classroom, and subsequently their ability to cope with job demands (Byrne, 2016; Darling-Hammond et al., 2010; Klassen & Chiu, 2010; O'Brennan et al., 2017; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2017).

Teachers have also had to develop new competencies related to online and hybrid teaching during the pandemic. As such, the present study also examined feelings of competency directly related to these new technological skills. Finally, I have broadly defined coping as teachers' experience with positive emotions toward their profession (referred to as emotional state) in order to take a strengths-based approach to understanding teachers' occupational well-being.

Research indicates that there is significant variation among teachers in their ability to cope with job stressors (Quick & Henderson, 2016). For example, Kim and colleagues (2020) found that teachers with a positive orientation toward stress, which the authors call "positive stress mindset", experienced less job stress and lower rates of turnover. Additionally, research by Carroll et al. (2021) indicated that improvements in teachers' stress due to intervention produced downstream effects for students, improving their well-being and academic performance. This emerging area of research on improving teacher well-being is essential, as teachers' emotional states are predictive of both job satisfaction and retention (Collie et al., 2012; Grayson & Alvarez, 2008). This project contributed to this line of research by identifying teachers that are able to cope with the stressors and understanding their school contexts and the support they receive in developing competence so that interventions can be designed around improving specific working conditions for teachers.

Latent profile analysis (LPA) is a person-centered analytic approach that allows for identifying subgroups within a population based on a particular set of variables (Lanza & Cooper, 2016). The purpose of the current study was to understand teachers' unique contexts (e.g., administrators, parents, colleagues, feelings of safety) and the

available supports to bolster their feelings competence (e.g., time, professional development, self-efficacy) during the pandemic. While in some cases, teachers with supportive contexts may feel more competent, this is may not always be the case. For example, research by Kurt and colleagues (2012) indicates that teachers' relationships with their school teams and leaders modestly predict their self-efficacy, suggesting that there may be other important factors contributing to the variance in self-efficacy between teachers. Using LPA instead of a variable-centered approach allowed for the examination of teachers' individual experiences in their contexts and the supports they receive to build their competency. The LPA provided information about whether context and competency variables consistently group together or, in some cases, represent distinct profiles of teachers with different experiences. Using survey data completed by teachers during the COVID-19 pandemic, I used latent profile analysis to look for patterns in teachers' context and competence. I also examined whether certain profiles of context and competence predict teachers' self-reported coping (i.e., emotional state). I predicted that four profiles would emerge: (1) high context-high competence, (2) low context-low competence, (3) high context-low competence, and (4) low context-high competence. Furthermore, I predicted that the high context-high competence profile would have the highest average scores for emotional state, and the low context-low competence profile would have the lowest average scores for emotional state.

CHAPTER 2:

LITERATURE REVIEW

Occupational Well-being, Burnout, and Teacher Turnover

Because people spend a great deal of their waking hours working, occupational well-being proves central to both physical and emotional health. According to Van Horn and colleagues' study of Dutch teachers (2004), occupational well-being contains five components: affective, social, professional, cognitive, and psychosomatic. The affective component includes mood, job satisfaction, and emotional exhaustion. The social component pertains to the quality of social relationships, while the professional component pertains to aspiration, autonomy, and feelings of competence. The cognitive component refers to the capacity to take in new information and concentrate at work, and, finally, the psychosomatic component reflects health complaints such as headaches and stomach aches. Each of these components alone can contribute to poor occupational well-being, and taken together, they provide a fuller picture of the challenges workers, and more specifically, teachers face (Van Horn et al., 2004). Poor occupational well-being is one of the top ten occupational health problems in the United States and is directly linked to seven of the ten leading causes of death worldwide, with cardiovascular disease as the leading cause of death for women and men (Quick & Henderson, 2016).

Poor occupational well-being often occurs when demands made of workers outweigh workers' external and internal resources to meet those demands. In their review of the literature, Quick and colleagues (1997) identified four categories of workplace demands: task demands (e.g., occupation, workload); role demands (e.g., role conflict and

ambiguity); physical demands (e.g., movement, workplace design); and interpersonal demands (e.g., conflict, leadership). These demands activate a physiological response to stress; when sustained, these demands lead to longer-term medical, psychological, and behavioral distress (Quick & Henderson, 2016).

One important outcome related to stress is occupational burnout. Burnout is a psychological construct with three components: emotional exhaustion, depersonalization, and feelings of reduced personal accomplishment (Maslach et al., 1986). Emotional exhaustion is the expenditure of emotional and psychological resources. Depersonalization refers to negative perceptions and attitudes of an individual toward their clients. Decreased personal accomplishment is the perception of a lack of success in the workplace. Burnout is important to study in an educational context, as it is directly linked to teachers' intent to leave the field (Bettini et al., 2017; Brunsting et al., 2014).

Survey research conducted over the past decade indicates that the emotional well-being of the teaching workforce is concerningly low (von der Embse et al., 2015). As one example, a 2014 Gallup poll indicated that 46% of K-12 teachers experience high stress levels, which was the highest percentage rate among all occupational groups (Greenberg et al., 2016). Furthermore, nearly half of U.S. teachers from the Gallup poll were actively looking for a different job or opportunity to change professions (Greenberg et al., 2016). More recently, a 2017 survey by the American Federation of Teachers found that 61 percent of teachers said work was often stressful (AFT, 2017).

Teachers experience a wide range of stressors in their job including low pay, intense workloads, high levels of accountability, and secondary traumatic stress (Richards et al., 2016). According to recent research from the Economic Policy Institute (2016),

teachers are not paid at a similar rate to other educated and highly trained professionals in the United States, and this discrepancy is worsening. Teachers also struggle with large workloads. In a study of urban charter-school teachers, Torres (2016) found that 1 of 3 teachers who reported their workloads as unmanageable left the profession after one year. Teachers are also subject to high stakes testing and accountability practices that add an additional layer of stress to their work. For example, Ryan and colleagues (2019) found that state-specific accountability practices for teachers predicted higher rates of test stress, burnout, and turnover intent. Finally, teachers are often placed in the role of clinical mediators in times of crisis for their students; these interactions result in a condition known as secondary traumatic stress, which has been linked to poor teacher performance and turnover (Lawson et al., 2019).

In the United States, many government agencies and resources are dedicated to supporting children's needs; however, teachers' needs are much less often considered, described by Berger (2016) as a need for a "dual agenda" for support in schools. The need for a dual agenda is supported by the American School Counselor Association, the National Association of School Psychologists, and the United States Department of education, all of which urged districts to increase emotional support for teachers. In a 2021 survey by the EdWeek Research Center, while 7 in 10 district leaders agreed that teachers' emotional and physical well-being ranked high on their priority list, fewer than one-quarter of teachers agreed that well-being is a priority in their districts (Gewertz, 2021).

Impact of Teacher Stress and Well-being on Classrooms and Students

The cost of poor teacher well-being is high, including associations with lower quality instruction and interactions as well as increased likelihood for burnout, school turnover, and attrition from the field (e.g., Allensworth et al., 2009; Greenberg et al., 2016; Sandilos et al., 2018; Gilmour et al., 2021). In their roles, teachers serve as both the academic and social-emotional leaders of their classrooms; burnout impedes teachers' abilities to support students with high-quality instruction and the modeling and teaching of social-emotional skills (Jennings & Greenberg, 2009).

When teachers experience burnout, their students show lower levels of academic achievement (Baker et al., 2021). Wong and colleagues (2017) specifically focused on special education teachers and found that teachers experiencing high levels of stress taught lower-quality lessons to students and had lower levels of student engagement; furthermore, teachers experiencing low levels of personal accomplishment (one of the three components of Maslach's burnout inventory) were less successful in meeting students' Individualized Education Program goals. Similarly, in the general education setting, McLean and Connor (2016) found that teachers' depression levels were negatively associated with student achievement; this association was explained (mediated) by teachers' provision of lower quality classroom learning environments (e.g., less organized, less responsive, and lower implementation of individualized instruction).

Teachers experiencing burnout also struggle to support their students socially and emotionally in the classroom. Oberle and colleagues (2020) found that elementary school children perceived teachers experiencing burnout as having lower levels of social-emotional competence; this indicates that even at the elementary level, students notice

and feel the impact of burned-out teachers. Additionally, Ramberg et al. (2020) found that teacher-reported stress, fatigue, and depressed mood were associated with students' ratings of satisfaction with their schools and their perception of teacher caring. Herman et al. (2018) found that teachers reporting high levels of stress and burnout and low levels of coping had students with a higher number of disruptive behaviors and also lower academic achievement. Similarly, Gilmour and colleagues (2021) conducted a latent profile analysis of teachers and found that teacher profiles with higher levels of burnout had lower ratings of observed classroom management skills.

Research focused on positive teacher wellbeing has focused on the impact of positive teacher wellbeing on students. Harding and colleagues (2019) found that better teacher well-being (i.e., the affective, social, professional, cognitive, and psychosomatic experiences of one's job; Van Horn et al., 2004) was associated with higher student well-being and lower student psychological distress. Similarly, Hindman and Bustamante (2019) found that reduced teacher depression over the school year was associated with a reduction in students' problem behaviors and improvements in students' prosocial skills. In an evaluation of an intervention to support teacher well-being, Carroll and colleagues (2021) identified the downstream impacts of the intervention on students; specifically, the authors found that reductions in teacher distress led to students' improved perceptions of teacher support in the classroom and higher academic self-perceptions as well. Taken together, the research suggests teachers' well-being influences their instructional quality and interactions with students as well as students' own behavior and achievement.

In addition to classroom practices and student outcomes, high levels of teacher emotional exhaustion, a key component of burnout, have been linked to teachers' career

intents to stay in the profession (Bettini et al., 2017; Goddard & Goddard, 2006; Martin et al., 2012). The link between teacher well-being and turnover is essential to understand given the high rates of turnover in the teaching profession (Sutcher et al., 2016). Since the early 1990s, around 8% of public-school teachers left the profession each year, with stress cited as the most common reason for leaving (Diliberti et al., 2021); in the late 1980s, the attrition rate hovered around 5% (Keigher, 2010). Notably, turnover rates are 70% higher for teachers in schools serving the largest concentrations of students of color and nearly 50% higher for teachers in Title I schools, which serve more low-income families (Carver-Thomas & Darling-Hammond, 2017). Turnover rates are highest in the South (16%) and lowest in the Northeast (10%), as states in the Northeast tend to offer higher pay and smaller class sizes (Carver-Thomas & Darling-Hammond, 2017). Teacher attrition reduces student achievement, impedes the development of coherent curricula, and creates expenditures related to screening and hiring new teachers (Diliberti et al., 2021). Additionally, declines in enrollment from teacher preparation programs have led to shortages in most U.S. States, and especially in rural areas, further exacerbating the impact of teachers leaving (Anderson et al., 2021). Thus, it is essential to understand how teachers navigate personal and professional stressors, and this need has only increased as a result of the ongoing pandemic.

Pandemic-Related Teacher Stress and Turnover

The COVID-19 pandemic has significantly impacted adult mental health, in general, and further exacerbated problems related to educator stress and burnout. According to the Center for Disease Control and Prevention, 40.9% of U.S. adults who took a survey in June 2020 reported having an adverse mental or behavioral health

condition (CDC, 2020). Early in the pandemic, a survey of over 5,000 U.S. teachers identified the five most common feelings experienced by teachers: anxiety, fear, worry, sadness, and feeling overwhelmed (Baker et al., 2021). Several months later, these teachers dealt with the uncertainty and danger of returning to schools in virtual, hybrid, and in-person formats.

In a sample of 454 teachers from New Orleans, Baker and colleagues found that most common stressors experienced by teachers included separation from family and close friends, acute awareness of stressors experienced by students, inability to do enjoyable activities, emotional stress, challenges related to working from home, increase in workload, death and illness in their own families, death and illness in students' families, feeling unsafe, caretaking for others, and becoming ill themselves; on average, teachers experienced around seven of these stressors during the pandemic (Baker et al., 2021). Anderson and colleagues (2021) found that the main stressors teachers faced were a lack of connection to their students due to physical distance, a lack of certainty around distance learning, increased workload due to digitalizing materials, and learning new technologies and instructional delivery modes. Additionally, teachers of color reported additional stress due to challenges related to racism. Furthermore, many teachers who are also parents reported challenges related to childcare (Baker et al., 2021). Using household data from before the pandemic, Selden and colleagues found that between 42% and 51.4% of school employees met the Center for Disease Control and Prevention's definition of having increased risk of severe COVID-19 (Selden et al., 2020), and surveys indicate that more than three-quarters of teachers were worried about risking their health to teach (Lambert et al., 2020). Pressley (2021) identified stressors that significantly

predicted teacher burnout including anxiety about COVID-19, anxiety about teaching, anxiety about communicating with families, and challenges related to administrative support; together, these predictors explained 45 percent of the variance in teacher burnout stress scores.

In a nationwide poll, the National Education Association found that 28% of all educators said the COVID-19 pandemic has made them more likely to retire early or leave the profession. In 2021, half of all teachers who left the profession cited COVID-19 as the main reason; other top reasons included stress and insufficient pay to merit the risk of teaching during the pandemic (Diliberti et al., 2021). In a representative national sample of 1,000 teachers, Diliberti and colleagues found that seven in ten of these teachers who left the classroom in 2020 and 2021 do not plan to return to the classroom.

Because research on the impact of COVID-19 on teachers is still emerging in the United States, it is helpful to look at studies on teachers internationally as well. COVID-related school closures impacted 70% of the world's student population, or around 1.2 billion students and their teachers (Dabrowski, 2020). In a cross-profession comparison study, Mari and colleagues compared professions in Italy and the impact of COVID-19 on their work. Compared with other working professionals who worked from home, teachers reported a higher impact of COVID-19 on their day-to-day job operations and a greater increase in stress. Allen et al. (2020) used data from over 6,500 teachers from an ongoing longitudinal study of teacher well-being in the United Kingdom to track changes related to the pandemic. They found a spike in teacher anxiety the week before lockdown began and again when re-opening was announced for the fall; 21% of teachers reported that re-openings made them more likely to want to leave the profession. Furthermore, in

contrast with data from previous years, teachers still reported high levels of anxiety during time off from schools. Additionally, 70% of teachers agreed that the COVID-19 outbreak had a negative impact on their mental health. In Spain, Santamaria and colleagues (2021) found that teachers experienced higher levels of anxiety, depression, and sleep disturbances in comparison with previous years; teachers cited factors such as uncertainty and lack of clear leadership and guidelines related to both safety and instruction. Similarly, in Japan, Wakui and colleagues (2020) found that teachers had both infection-related and instruction-related anxieties about teaching during the pandemic. In Canada, Sokal et al. (2020) found that teachers measured throughout the school year showed increased cynicism and exhaustion but higher levels of self-efficacy with remote instruction as the pandemic progressed. In India, Chitra (2021) found that online teaching increased occupational stress for teachers and subsequently decreased job satisfaction. Taken together, the COVID-19 pandemic has significantly impacted teachers around the world, leading to an uptick in mental health challenges for an already highly stressful occupation.

Teacher Well-being and Positive Psychology

Given the high levels of stress experienced by teachers before and during the pandemic, it is critical to understand both the challenges and protective factors that impact teacher well-being. Prior research on teacher well-being often focuses on the absence—stress, burnout, and attrition. While it is vital to acknowledge the stressors and related consequences to the teaching field, it is also crucial to understand what supports keep some teachers feeling joyful, motivated, and invested in the profession in order to develop positive, actionable interventions to help other teachers feel successful. Research

by Herman and colleagues (2020) found that high teacher stress alone did not predict many adverse outcomes for teachers or students; only teachers with high levels of stress and low levels of coping experienced the negative outcomes. Stress and coping were both measured using single-item measures of each construct ("How stressful do you find being a teacher?"; "How well are you coping with the stress of your job?). Similarly, Eddy and colleagues (2019) found that coping was a stronger predictor of burnout than stress. Relatedly, Parveen and Bano (2019) found that teachers' emotions play a moderating role between teachers' stress and job satisfaction; in other words, teachers' emotional appraisal of their stress impacts their overall satisfaction with their work. Research on the topic of eustress or "good stress", pioneered by Nelson and Simmons (2000), indicates that stress is not always detrimental; challenging stressors can help individuals grow and gain competence (Quick & Henderson, 2016). Finally, a preliminary positive psychology-based intervention for teachers in Germany showed promising increases in positive emotion, life satisfaction, and flourishing and reduced negative emotions, stress, and emotional exhaustion (Rahm & Heise, 2019). Overall, this research points to the importance of the appraisal of teacher stress and coping as well as the potential for resilience.

Thus, in addition to capturing information on teacher stressors, this present dissertation study focused on capturing a broader sense of teacher well-being. An individual's sense of well-being is based on positive evaluations of their lives, including positive emotion, engagement, satisfaction, and meaning (Diener & Seligman, 2004). Thus, a strengths-based, positive psychology approach to teacher well-being also captures the positive and healthy aspects of teachers' work lives. This can include positive

attitudes toward the profession as well as joy and engagement in the classroom, all precursors to job satisfaction (Jennings & Greenberg, 2009; Renshaw et al., 2015; Skaalvik & Skaalvik, 2011).

Theories and Conceptual Frameworks of Stress and Coping

Several models have been used to conceptualize teacher stress and well-being in the past four decades: the transactional theory of stress, stress mindset theory, and the prosocial classroom theory (Herman et al., 2020). Each of these theories takes into account the stressors individuals face and the positive ways in which they choose to cope. Based on cognitive-behavioral science, the transactional theory of stress posits that stress is the "emotional, cognitive, and physiological experience when environmental demands exceed an individual's resources to adapt"; coping is how individuals try to meet the demands (Herman et al., 2020). Cognitive behaviorists further defined two forms of coping: emotion-focused and problem-focused (Lazarus & Folkman, 1984). While a teacher using emotion-focused coping may choose to share their feelings with a friend, engage in prayer, journal, or reframe their negative thoughts about the situation, teachers using problem-focused coping strategies may choose to brainstorm solutions, adjust their time management, or ask for help from a colleague or supervisor. Both types of strategies have shown to be effective for coping. While this theory helps identify how individuals' appraisals of stress impact their coping, the theory is more narrowly focused on a person's reaction to a specific stressor rather than their global sense of well-being.

Conversely, stress mindset theory is a metacognitive attitude that influences a person's more general appraisal of how their work impacts them; studies indicate that a positive stress mindset predicts positive health outcomes (Crum et al., 2017). For

example, a teacher with an effective stress mindset sees work stressors such as negative student behavior or conflict with colleagues as building their resilience and capacity for taking on new challenges, rather than negatively impacting their well-being.

However, both of the above theories are not specific to the teaching profession. The prosocial classroom theory emphasizes the role of a teacher's social-emotional competence in their classrooms; the model posits that teacher social-emotional competence can be taught, and high levels of competence can reduce the impact of teacher stress on both students and teachers (Jennings & Greenberg, 2009). Accordingly, a prosocial teacher actively works toward their own well-being, models self-care and emotional regulation to students, and in turn, students show higher levels of well-being themselves. However, this model focuses on the individual teacher divorced from the context of the school at large and the resources available to teachers to support their competence and well-being. Importantly, all three of the above theories share a focus on teacher mental health from a positive-psychology lens of well-being, rather than solely focused on stress and burnout.

Integrating the above research with a broader, school-level lens, Herman and colleagues (2020) recently presented a theory of teacher stress based on extant research: The Coping-Competence-Context (3C) theory of teacher stress. The Coping pathway consists of teachers' individual characteristics that contribute to how they deal with stress; this includes stress mindset and strategies used to cope. The Competence pathway refers to teaching skills related to managing the stressors of the classroom including academics and student behavior. The Context pathway includes teachers' perceptions of school-level practices and administrative support (Herman et al., 2020). Expanding upon

existing research, Herman and colleagues' model takes an ecological lens to teacher well-being by considering the context, and the focus on coping allows for capturing the full spectrum of teacher well-being, from teachers near burnout to teachers thriving, even under challenging circumstances. Herman and colleagues also called for future research to examine the relationships among the three pathways as well as research focused on a broader definition of stress that includes stress that is beneficial and/or well-managed (Herman et al., 2020).

Building on Herman and colleagues (2020) 3C model, the current research examined a broad swath of working conditions, both contextual and competence-related, that likely influence teachers' abilities to cope during the COVID-19 pandemic. Adding to *context*, I included teachers' feelings of school belonging, relationships with colleagues, relationships with parents, and feelings of safety; I also included teachers' level of agreement with school policies related to the pandemic. Adding to teachers' feelings of *competence,* I included teachers' perceived access to resources, time, and professional development; I included teachers' feelings of competence specific to teaching in online and hybrid formats during the pandemic. The addition of these variables reflects an intentional choice to move away from an intrapersonal framing of competence and toward an understanding of the school-based supports needed to build competence in teachers. Additionally, rather than looking at context, competence, and coping as separate factors contributing to teacher stress, I posited from a broader ecological perspective, the school context and competence may predict coping. That is, teachers who have more supportive contexts and more resources to enable their competence may be able to cope more effectively with teaching during the pandemic.

Finally, taking a positive psychology lens, I broadly defined coping as teachers' positive emotional state as it relates to their profession.

School Context and Working Conditions Related to the 3C Model

In educational research, key aspects of the school context are often referred to as working conditions. According to Johnson (2006), working conditions for teachers include "the physical features of the workplace, the organizational structure, and the sociological, political, psychological, and educational features of the work environment" (p. 2). Research on teacher working conditions has focused on the importance of factors such as leadership (Boyd et al., 2011; Eldor & Shoshani, 2016; Grayson & Alverez, 2008; Ladd, 2011), belonging (O'Brennan et al., 2017; Skaalvik & Skaalvik, 2011), colleagues (Byrne, 2016; Mehta et al., 2013), parents (Grayson & Alverez, 2008; Skaalvik & Skaalvik, 2011), resources (Ladd, 2011; Mehta et al., 2013); professional development (Ladd, 2011), time pressure (Fernet et al., 2012; Skaalvik & Skaalvik, 2017), and safety (Boyd et al., 2011; Kapa & Gimbert, 2017; O'Brennan et al., 2017). These factors have been studied together and separately to understand the variety of factors that influence teacher well-being. There are moderate correlations amongst these variables including colleagues and belonging (O'Brennan et al., 2017), colleagues and leadership (Eldor & Shoshani, 2016; Mehta et al., 2013; Skaalvik & Skaalvik, 2011), leadership and resources (Boyd et al., 2011), and colleagues and resources (Mehta et al., 2013). One recently developed measure of teacher well-being, the Measure of Stressors and Supports for Teachers (MOST) contains each of the above factors and was used in the current study to gain a holistic understanding of teacher well-being (Sandilos & DiPerna, 2022).

School leadership is one of the strongest predictors of teacher stress, self-efficacy, satisfaction, burnout, and turnover (e.g., Eldor & Shoshani, 2016; Ladd 2011; Mehta et al., 2013). In a study of 226 teachers, Eldor and Shoshani (2016) found that teachers' perceptions of their principals' compassion mediated their level of positive affect at work which predicted teachers' levels of job satisfaction and was inversely correlated with burnout. Ladd (2011) found that teachers' negative relationships with leadership were predictive of both their intent to leave the profession and actual leaving. Fernet and colleagues (2012) found that teachers who rated their leadership team as more effective had higher levels of self-efficacy and lower levels of burnout across all three domains (emotional exhaustion, depersonalization, and reduced personal accomplishment). In a study of 203 urban teachers, Mehta and colleagues (2013) found that principal support was associated with a positive school environment for learning, better access to resources, less stress from outside influences in implementing the school's mission, and more positive relationships with colleagues. Furthermore, Kapa and Gimbert (2017) found that teachers who reported that their principals consistently enforced school rules reported higher levels of job satisfaction.

Because leaders often set the tone for the school climate, teachers' feelings of belonging are highly influenced by school leaders. In fact, in Sandilos and DiPerna's (2022) factor analysis in the development of the MOST scale, leadership and belonging were found to represent a single factor. Key components of belonging include trust, collaboration, and positive communication (Goddard et al., 2015; Tschannen-Moran, 2009). In a study of over 3,000 Maryland public school teachers, O'Brennan et al. (2017) found that teachers who felt a sense of connectedness to their schools had lower rates of

burnout. Furthermore, in a study of over 2,500 Norwegian teachers, Skaalvik and Skaalvik (2011), the researchers found that teachers with a higher sense of belonging to their schools had higher levels of job satisfaction and lower levels of emotional exhaustion at work; additionally, higher levels of job satisfaction were inversely correlated with teachers' motivation to leave the profession.

Teachers' relationships with their colleagues also play an important role in their well-being. Eldor and Shoshani (2016) found that while principal compassion was a stronger predictor, teachers' perceptions of their colleagues' levels of compassion also predicted positive affect and job satisfaction and was inversely correlated with burnout. In a study of 7,000 Canadian teachers, Byrne (2016) found that teachers who felt supported by their peers had higher levels of self-esteem and lower levels of burnout. Mehta and colleagues (2013) also found that teachers who reported more collegial relationships had higher levels of job satisfaction.

Teachers' relationships with parents also play an important role in teacher stress. For example, Greenberg and colleagues (2016) found that teacher stress is higher when parents are perceived by teachers as difficult or demanding. In contrast, Grayson & Alvarez (2008) found that teachers have lower rates of emotional exhaustion and higher rates of job satisfaction when they perceive that the parents of their students are invested in their children's education.

Teachers' feelings of safety also impact their well-being. In fact, in a study of middle school teachers, Berg and Cornell (2016) found that teachers' feelings of safety mediated the relationship between school climate and teachers' feelings of distress. In addition, Kapa and Gimbert (2017) found that teacher victimization (both threats and

attacks) inversely predicted teachers' job satisfaction. In contrast, O'Brennan et al (2017) found that teachers who felt higher levels of safety in their schools had lower rates of burnout.

Additionally, the COVID-19 pandemic has necessitated another safety-related variable for consideration: teachers' agreement with their schools' decisions around COVID-19. Boyd (2011) found that teachers who felt more of a sense of control over school policies were less likely to leave the profession. Based on the findings identified by Boyd (2011) as well as Berg and Cornell (2016)'s research described above in which unsafe schools are associated with teacher distress, it is likely that teachers who agreed with their administrators' decisions related to COVID-19 would have higher levels of well-being (Diliberti et al., 2021).

Competence

Teachers' self-efficacy, time, and professional development all impact their feelings of competence, and subsequently their ability to cope with job demands (Byrne, 2016; Darling-Hammond et al., 2010; Klassen & Chiu, 2010; O'Brennan et al.; 2017; Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2017).

Teacher self-efficacy plays an important role in both job satisfaction and burnout. For example, Klassen and Chiu (2010) found that teachers with higher levels of self-efficacy also had higher levels of job satisfaction. O'Brennan et al (2017) found that teachers with higher levels of self-efficacy had lower rates of burnout. Byrne (2016) found that teachers' self-esteem was a mediator between common stressors (role conflict, workload, peer relations) and burnout. Klassen and Chiu (2010) found that classroom

stress is negatively associated with three dimensions of teacher efficacy related to serving students (i.e., efficacies for instructional strategies, classroom management, and student engagement). Another important aspect of self-efficacy is teachers' ability to serve students with disabilities; this is important because more students with disabilities are being served in general education classrooms because of inclusion efforts. Gilmour and Wehby (2020) found that for general educators, the percentage of SWDs in teachers' classes was associated with an increase in the odds of turnover. This same association was not present for teachers with special education certifications. As such, the current study includes measures of teachers' self-efficacy with general education and special education students as well as demographic data on special education certificates held by participants.

Additionally, given changes to schooling brought on by the COVID-19 pandemic, another important consideration is teachers' feeling of self-efficacy related to online learning and hybrid teaching practices. While teachers across the U.S. engaged in virtual instruction during the pandemic, there is minimal existing research that sheds light on educators' beliefs, self-efficacy, or individual needs related to online teaching modalities (McQiggan, 2007; Rakes & Dunn, 2015). However, some pre-pandemic data indicate that teachers historically have not felt equipped to teach online. For example, a published survey by Blackboard K-12, Inc. (2010) found that only 4% of teacher respondents reported that their pre-service teaching prepared them to teach online. Moreover, teachers who do instruct online report difficulties engaging and connecting with students, as compared to face-to-face instruction (McQiggan, 2007). Rakes and Dunn (2015) reported teacher concerns about serving students with special needs as well as finding ways to

fairly assess students online. Teachers in this study also expressed an overall distrust of the results of online instruction for learning and social growth compared to in-person instruction (Rakes & Dunn, 2015).

Teachers often report feeling strapped for time. Using statewide data from over 42,000 teachers in North Carolina, Ladd (2010) identified several important factors related to teachers' conceptualization of "time"; this included having a reasonable class size (impacting teachers' abilities to instruct, support, and give feedback to each student) and non-instructional time during the workday (including time for planning, preparing, eating, and using the restroom). This "time" variable was predictive of both elementary and secondary school teachers' intent to leave their jobs. When teachers' workloads exceed their contracted time available to complete them, teachers experience high workload stress; Klassen and Chiu (2010) found that teachers with high workload stress had significantly lower job satisfaction. Additionally, teachers who report unmanageable workloads and intense time pressure report higher levels of emotional exhaustion, a key component of burnout (Byrne, 2016; Fernet et al., 2012; Skaalvik & Skaalvik, 2017). Furthermore, in a study of 98 teachers, Abel and Sewell (1999) found that teachers working in urban environments experienced greater time pressure than teachers in rural environments which partially explained higher rates of burnout.

Teachers also rely on professional development (PD) to support their growth. High-quality professional development can increase teachers' feelings of self-efficacy related to the targeted area of PD instruction (Darling-Hammond et al., 2010), thereby reducing stress associated with that area of instruction (Schwarzer & Hallum, 2008). Furthermore, research by Sandilos and colleagues (2020) found that professional

development related to social-emotional learning can buffer the negative influence that stress has on teachers' instructional practices. Taken together, these studies indicate that targeted professional development has the potential to improve teachers' self-efficacy and well-being.

Coping

According to Herman and colleagues' (2020) model, the "Coping" pathway represents teachers' mindsets and strategies used to manage work stressors; the valence of teachers' emotional responses to work demands may be negative or positive. In the present study, the "coping" pathway is conceptualized as teachers' positive emotions toward their job. This conceptualization diverges from Herman and colleagues (2020) definition in that it does not examine particular coping strategies, but instead focuses in on the positive mindset aspect of the coping construct.

While most of the research on teacher well-being is focused on teacher stress, it is important to identify teachers that are experiencing positive emotions and are thriving in their work (Kyriacou, 2001; Renshaw et al., 2015). This positive psychology lens allows for the identification of individual and contextual protective factors that can be utilized by teachers and school leaders to improve teachers' emotional experiences at work. Research by Prilleltensky and colleagues (2016) indicates that teacher stress occurs when risk factors outweigh protective factors; Prilleltensky and colleagues were able to successfully reduce stress for novice teachers through intervention to promote teacher resilience. This emerging area of research on how to support well-being is essential, as teachers' emotional states are predictive of both job satisfaction and retention (Collie et al., 2012; Grayson & Alvarez, 2008). In other words, teachers' positive emotions toward

work likely reflect their ability to cope with work stressors and ultimately remain in the profession.

Extending this positive psychology perspective, researcher Amy Roberts, in collaboration with the Buffett Early Childhood Institute, developed an ecological model for teacher well-being that includes both contextual and individual factors that help teachers flourish (Roberts & Kim, 2019); Roberts asserted that this ecological conceptualization of teacher well-being can help researchers and policymakers design holistic interventions to support teachers in their unique contexts. The current study is aligned with this positive psychology approach and seeks to understand whether teachers' experiences with relational contexts and supports for their competence influence teachers' positive emotions at work through profile analysis.

Latent Profile Analysis with Teachers

Latent profile analysis (LPA) is a person-centered analytic strategy focused on identifying subgroups within a population based on a particular set of variables; it assumes that subgroups of participants can be formed based on profiles of personal and/or environmental attributes (Lanza & Cooper, 2016). In the past decade, LPA has received growing interest in vocational research to identify groupings of individuals based on categories like work commitment, motivation, adaptability, and perceived support (Spurk et al, 2020).

Internationally, research using LPA to study teachers has focused on contextual factors such as job demands and supports, competency-related constructs such as self-efficacy, and emotional and behavioral outcomes such as stress, coping, and burnout

(e.g., Ferradas et al., 2019; Marias-Operman et al., 2021; Perara et al., 2019; Portoghese, 2020). For example, Collie and colleagues (2020) used latent profile analysis to identify five teacher profiles related to workplaces demands and resources; demands included professional development requirements and negative student behaviors, while resources including collaboration, input on decision-making, and self-efficacy for teaching. The two most common profiles were those with average resources and average demands (34% of the sample) as well as "strugglers" with low resources and high demands (21% of the sample). Using the job demand-control-support (JDCS) model in which control reflects teachers' level of autonomy on the job, Portoghese and colleagues (2020) used LPA to identify four profiles of social service workers: (1) those who were isolated with low control and high demands, (2) those with low demands and moderate support, (3) those with moderate demands and moderate control and support, and (4) what they called "participatory leaders": those with high levels of control and support with moderate demands. These studies demonstrate the value of latent profile analysis for teachers; working conditions do not always vary together, and profiles allow for a more nuanced understanding of teachers who may have mixed experiences rather than globally negative or positive working conditions.

Other studies have examined profiles of teachers from a mental health perspective. Marias-Opperman and colleagues identified profiles of teachers based on their coping strategies that predicted their mental health. They found that teachers who used self-blame as a coping strategy had lower self-efficacy and poorer mental health outcomes, while teachers who used religion or active coping strategies such as planning and positive reframing had higher self-efficacy and better mental health outcomes.

Herman and colleagues (2020) identified profiles of teachers based on their stress levels and ability to cope; nearly all teachers in the study fell in the (1) High Stress, High Coping (66%) or (2) High Stress, Low Coping profiles (28%), while just 6% of teachers fit the most adaptive profile: (3) Low Stress, High Coping. Teachers in the High Stress, Low Coping profile had lower self-efficacy and higher rates of burnout as well as higher rates of student depression in comparison with other classes. This research points to the urgent need to understand differences in teacher well-being for the benefit of both teachers and students.

The current study fills an existing gap in the literature by distinguishing between two types of working conditions that impact teacher well-being: their relational context (e.g., leadership, colleagues) and their feelings of competence (equipped with resources to support students, professional development, and time at work to do their jobs well). While schools with a more supportive context (e.g., better relationships with leaders and colleagues) may lead to greater feelings of competence for teachers in those schools, this may not be true for all teachers. For example, a teacher may still have high levels of competence while working in a school without a supportive context (e.g., negative relationships with school leaders, lack of safety). Alternatively, a teacher at a school with supportive interpersonal relationships may feel connected to their workplace but not fully equipped with the professional development and work time they need to be successful in their classrooms. In other words, in schools, teachers rely on both relational support (context) and more tangible support leading to competence in their classrooms, and more research is needed to understand the ways in which these types of support align. Research by Kurt and colleagues (2012) indicates that teachers' relationships with their school

teams and leaders modestly predict their self-efficacy, suggesting that there may be other important factors contributing to the variance in self-efficacy between teachers. Relatedly, research by Manasia and colleagues (2020) found that job resources provided to teachers had a larger impact on their subjective well-being than their personal resources, namely self-efficacy. These findings point to the need to further examine how teachers' contexts and feelings of competency interact and relate to teachers' emotional state, which is the goal of the present study.

The Current Study

In a 2001 review of teacher stress research, Kyriacou indicated five key areas for future research: (1) the impact of education policy on teacher stress, (2) understanding why some teachers cope more effectively than others, (3) clarifying the nature of teachers' stressors, (4) assessing interventions for teacher stress, and (5) exploring the impact of classroom and school climate on teacher stress. Two decades later, stress continues to plague the teaching profession and there is still a need for research across these areas (von der Embse et al., 2019). The current study touches on goals 1, 2, 3, and 5; this study describes COVID-19-related policies in schools, examines protective factors and stressors for teachers, and considers ecological climate-related factors (context) such as teachers' relationships with administrators, colleagues, and parents.

This study builds on Herman and colleagues' Coping-Context-Competence (3C) model of teacher stress by considering a wider range of indicators for competence and context. The purpose of the current study is to understand how teachers coped with the pandemic given their unique contexts (e.g., administrators, parents, colleagues, feelings of safety) and the available supports to their competence (e.g., time, professional

development, self-efficacy). The study also explores explanations for the differences in coping for teachers, by examining the ways in which different patterns of context and competence predict coping. As such, this study addresses the following research questions:

1) What profiles emerge from teachers' ratings of their context and competence?

2) Do these profiles of context and competence predict teachers' abilities to cope, as measured by their positive emotional state?

I hypothesized that four profiles would emerge: high context-high competence, low context-low competence, high context-low competence, and low context-high competence. Of the four profiles, I predicted that the high context-high competence profile would have the highest average scores for emotional state, and the low context-low competence profile would have the lowest average scores for emotional state.

CHAPTER 3:
METHODS

The data for this dissertation study were drawn from a larger survey study the PRESS (Pandemic Response and Equitable School Systems) for Teacher Support project (PI: Sandilos).

Participants

A convenience sample of kindergarten through 12th-grade teachers (*N*=134) employed full-time in either public, charter, or private schools in the United States during the 2020-2021 school year were invited to take part in the survey. We excluded individuals who were not currently working as teachers, individuals who taught outside of the U.S., and individuals who were paraprofessionals and teaching/instructional assistants from the study. To recruit participants, the research team collected publicly available teacher email addresses from public, private, and charter school websites across the United States. The research team divided the country into regions: Northeast, Midwest, West/Southwest, and Southeast, aiming for an equal distribution of teachers' emails from each region; the research team member assigned to the region Google-searched for teachers by state from that region, searching for public, charter, and private school emails (e.g., "Arizona public school teacher emails"). Additionally, the research team shared information about the research study with their personal networks in Pennsylvania, Virginia, Maryland, and North Carolina among other states. The research team also reached out to teacher listservs (e.g., National Board-Certified Teachers, American Federation of Teachers, and other Educator Facebook groups) to gain permission to post the survey on those sites.

We collected 3,007 total teacher emails from school district websites, charter network websites, and private school websites (see Table 3 for distribution of emails by region, school type, and grade level). This method of recruitment produced a 3.3 percent response rate.

Participants included 134 K-12 teachers with an average of 13 total years of experience and an average of 8 years teaching in their current school. Teachers from the Northeast were represented most in the sample (41%), followed by teachers from the West/Southwest (26%), Southeast (18%) and Midwest (15%). Most teachers in the sample identified as female (78%), about one-fifth identified as male (21%), and two teachers identified as transgender/nonbinary (2%). Most teachers in the sample identified as White (82%); other racial groups represented included Black (6%), multiracial (7%), Hispanic (1%), Asian (1%), and Native Hawaiian/Pacific Islander (1%). Teachers were relatively evenly dispersed across elementary (30%), middle school (29%), and high school (41%). Approximately 13% of the teacher respondents indicated that they taught special education. The majority of teachers taught in public schools (79%); some teachers also taught in charter schools (15%) or private schools (7%). All teachers responding to survey measures held at least a bachelor's degree.

Measures

PRESS for Teacher Support Survey

The survey administered in the PRESS for Teacher Support Project included subscales from different measures as well as some COVID-related items that were created by the research team specifically for the study. In this dissertation, I analyze

subscales that came from a measure of teacher well-being, The Measures of Stressors and Supports for Teachers (MOST), as well as researcher-developed COVID safety items.

The Measure of Stressors and Supports for Teachers (MOST). The MOST is a teacher-report questionnaire that was designed to assess both ecological and psychological factors that impact teacher well-being. The MOST was validated in a sample of over 200 K-12 educators (Sandilos & DiPerna, 2022). Classical item analysis and exploratory factor analysis were conducted on MOST scores to examine items and assess the factor structure. Factor analysis revealed a nine-factor structure (Parents, Colleagues, School Leadership and Belonging, Classroom Students, Students with Disabilities, Time Pressure, Professional Development, Safety, and Emotional State). Prior research indicates that the MOST factors have strong internal consistency ($\omega > .80$; Sandilos & DiPerna, 2022). Notably, some items from the MOST were adapted to better reflect virtual learning in the COVID-19 pandemic. With the present survey data, McDonald's omega was calculated to assess the internal consistency of items within each subscale since this metric is more accurate for ordinal data than Cronbach's alpha (Trizano-Hermosilla & Alvarado, 2016). Internal consistency of items on each MOST and COVID-19 subscale ranged from .86 to .96 (See Tables 1 and 2). Unlike measures focused solely on teacher stress, the MOST uses positively-framed items that allow for the identification of teachers who are flourishing (Table 1).

COVID-19 Items

COVID-19 items were derived through review of existing research on teachers' feelings of safety in typical school years (e.g., Berg & Cornell, 2016) as well as news articles related to COVID-safety in schools (e.g., DeWitt, 2020). The research team met

to review items based on themes derived from this research (Table 2). Teachers were asked to indicate their level of agreement with their leaders' COVID-19 related decisions. They were also asked questions about whether their schools implemented specific COVID-19 safety procedures such as having students sit six feet apart, requiring masks, and professionally cleaning surfaces. Additionally, teachers were asked about whether they felt equipped to develop and execute lesson plans for virtual and hybrid instruction.

For all MOST and COVID-19 domains, rating scale response options ranged from 1-5. All domains were scored by taking the average of the teacher's ratings of the items within the given domain.

Procedure

As mentioned above, data from the present dissertation study came from a larger study of teacher stress, The PRESS For Teacher Support Study, led by Dr. Lia Sandilos and a team of graduate students. I served as a core member of this research team. The goal of the larger study was to understand teachers' professional experiences during the COVID-19 pandemic through teacher-report surveys and interviews.

Teachers accessed information about the study's confidentiality, benefits, risks, and procedures by clicking on a hyperlink in the email or post. We collected de-identified survey data from teachers through the secure online survey platform, Qualtrics. Survey data collection took place between February and July 2021. Teachers were informed that their names would not be linked to their survey information and that they could withdraw from the study at any time. At the end of the survey, a link was embedded to take the teachers to a separate "contact information" survey where they could enter their contact information to receive a $10 gift card. Teachers were also able to indicate whether they

were willing to be contacted for and consented to participate in a 15–20-minute phone interview. Only the approved research team members had access to survey and interview data and other associated participant information. The data files were maintained on Microsoft 365 One Drive, which is a secure cloud-based electronic storage system approved by Temple University.

Analytic Approach

I conducted descriptive analyses in R. I conducted latent profile analysis and logistic regression in M*plus* version 8.5 (Muthén & Muthén, 1998-2020). First, I analyzed descriptive statistics and correlations amongst subscales. After accounting for missing data, I conducted a latent profile analysis to determine what profiles emerged from teachers' ratings of their context and competence. Finally, I conducted a regression analysis to determine whether profiles predicted teachers' abilities to cope, as measured by their emotional state.

Descriptive Statistics

First, I conducted descriptive statistics for teachers' survey ratings of context, competence, and emotional state as well as teacher background characteristics (e.g., gender, race, years of experience, grade levels served [elementary, middle, high], and school type [charter, public, private]). Then, I analyzed correlations among the MOST subscales and COVID-19 subscales.

Missing Data

I applied t-tests and chi-squared tests to missing data to determine if missingness was systematic based on teacher characteristics. Full-information maximum likelihood (FIML) was used to adjust for missing data (Allison, 2009). Based on previous research, I

included gender, race, grade level, special education, school type, and years of experience as covariates in the regression analyses (e.g., Byrne, 1994; Carver-Thomas, 2018; Gilmour & Wehby, 2020; Klassen & Chiu, 2010; Tebben, 2021). I coded categorical covariates in the following manner: Gender (1 = woman, 0 = male/nonbinary); race (1 = teacher of color, 0 = white teacher); grade level (1 = elementary, 2 = middle, 3 = high); special education teacher (1=special education, 0 = general education/other); school type (1= public, 2 = charter, 3= private/parochial/other).

Latent Profile Analysis (LPA)

To address the first research question, I conducted an LPA that included both context-related variables (e.g., leadership, colleagues) and competency-related variables (e.g., professional development, time). I first estimated a model with all the teachers in one profile; then I increased the number of profiles and examined the change in model fit using Akaike information criterion (AIC), Bayesian information criterion (BIC), sample size adjusted BIC (SSABIC; Hancock & Samuelsen, 2007). The SSABIC is the most accurate fit index for model sample sizes (N=100-200; Dziak et al., 2014), so I considered this fit index closely. Lower values are preferred for these indices. I also used the Lo-Mendell-Rubin likelihood ratio test (LMR) to determine whether an increase in the number of profiles resulted in a statistically significant improvement in fit over the previous number of profiles. In addition, I examined entropy, which provides information about whether the profiles are distinct enough from one another with entropy values closer to 1.00 indicating higher classification quality (Nylund et al., 2007). I retained the model that best fit the data, was meaningfully interpretable, and included a substantive number of teachers in each group.

Regression Analysis

To address the second research question, I examined whether profile membership was associated with teachers' emotional state. I ran a regression analysis with profile membership predicting emotional state. I used a = .05 as my cut-off for statistical significance. Gender, race, and years of experience were included as covariates in the regression analysis.

CHAPTER 4:

RESULTS

Descriptive Statistics

Complete teacher demographics for the sample are presented in Table 4. Correlations among the MOST and COVID-19 domains ranged widely from .17 to .81 (Table 6); correlations are consistent with previous studies of the MOST (Sandilos & DiPerna, 2022). The two sets of domains with the highest correlations were leadership with belonging (r = .81) and academic support for general education students with academic support for special education students (r = .72). Beyond belonging, the leadership domain was most highly correlated with the domains of safety (r = .51), academic support (r = .53), and professional development (r = .54). Emotional state most correlated with belonging (r = .57) and academic support (r = .54). MOST and COVID-19 domains included in the latent profile analysis are presented in Table 5. Teachers' average emotional state scores ranged from 1.5 to 5.0 with a mean of 3.41 and standard deviation of 0.87.

With regard to relationships within the school context, on average teachers provided the highest ratings for relationships with colleagues (mean = 3.75, SD = 0.71) and the lowest ratings for relationships with parents (mean = 2.88, SD = 0.69. When rating aspects of competence, teachers provided the highest ratings for COVID-19 related academic support (mean = 3.57, SD = 0.83) and the lowest ratings for having the time needed to do their jobs (mean = 2.96, SD = 0.92).

Missing Data

Of the 164 participants, 43% were missing some amount of data from the survey. I conducted analyses examine differences between participants with and without missing data on background variables of interest (See Table 7). Results indicated that there were no statistically significant and meaningful differences between participants with and without missing data based on gender ($\chi^2 = 1.40$, $p = 0.24$, $\varphi = 0.10$), race ($\chi^2 = 1.34$, $p = 0.25$, $\varphi = 0.10$), years of experience ($t = 1.75$, $p = 0.08$, $d = 0.16$), school type (public, $\chi^2 = 2.70$, $p = 0.08$, $\varphi = 0.14$; charter, $\chi^2 = 0.37$, $p = 0.55$ $\varphi = 0.05$; private, $\chi^2 = 0.96$, $p = 0.33$, $\varphi = 0.08$), and school level (elementary, $\chi^2 = 0.80$, $p = 0.37$, $\varphi = 0.08$; middle, $\chi^2 = 3.30$, $\varphi = 0.16$, $p = 0.07$; high, $\chi^2 = 2.66$, $p = 0.10$, $\varphi = 0.14$). When a participant was missing data on an item within a subscale, all other items were averaged to comprise the domain score.

Full information maximum likelihood (FIML) was used to adjust standard errors to account for missing data. Compared with other missing data methods, FIML provides less biased parameters and more accurate fit indices when planning for latent variable modeling (Allison, 2009).

Latent Profile Analysis

In selecting the number of profiles, I estimated solutions with an increasing number of profiles (i.e., 1-9 profiles; see Table 8). Next, I evaluated each solution using model fit indices (e.g., AIC, BIC, SSABIC, LMR, entropy). I also evaluated profile solutions for their meaningfulness in group size and interpretability (Nylund et al., 2007).

While the 4-profile solution had the lowest AIC, BIC, and SSBIC values, the 3-profile solution was selected as the best-fitting solution because it had decreasing model

fit indices (AIC=3747.31, BIC=3889.91, SSABIC=3744.27), a high entropy value (0.85), and a statistically significant LMR value (LMR = 133.26, p = 0.008; See Table 7). The size of each profile was substantial (Profile 1: N=19, 12% of sample; Profile 2 N=92, 56% of sample; Profile 3 N=53, 32% of sample) and profiles were differentiated in an interpretable fashion (see Figure 2). As illustrated in Figure 2, teachers in Profile 1 had the lowest scores across all MOST and COVID-19 domains. Profile 2 had the next lowest scores across all domains, and Profile 3 had the highest scores across all domains. Given the high, medium, and low nature of the groups, I will refer to the first profile as *struggling*, the second profile as *surviving*, and the third profile as *thriving*. Notably, the only instance in which profiles closely converged was the domain related to the tools and resources provided to teachers during the pandemic (i.e., COVID support); for this domain, the struggling profile and surviving profile reported similar average scores (3.33 and 3.34 respectively; see Table 9). Additionally, the three profiles showed the most differentiation from one another in the domains of leadership, belonging, and professional development (see Figure 2).

Notably, the four-profile solution was also closely considered. Though some fit statistics indicated that four-profile solution was plausible, the LMR value was non-significant, and one of the four profiles contained just six participants. However, due to the unique structure of the profile, I have included a figure of the four-profile solution as well (see Figure 3).

Demographics of the Three-Profile Solution

Demographics of the three-profile solution were examined to better understand the composition teachers in each profile. There were similar distributions of gender

identities across each profile (struggling = 75% women; surviving = 76%; thriving = 79%; see Table 10). With regard to race, the struggling profile contained a slightly higher percentage of white participants (88%; surviving = 81%; thriving = 84%). The struggling profile had a distinctly lower percentage of middle school teachers (12%; surviving = 27% thriving = 36%) and the highest percentage of both elementary school teachers (35%; surviving = 29% thriving = 20%) and high school teachers (47%; surviving = 40% thriving = 34%). The struggling profile also had the highest percentage of teachers in public school settings (82%; surviving = 77% thriving = 80%), the surviving profile had the highest percentage of charter-school teachers (19%; struggling = 12%; thriving = 9%) and the thriving profile had the highest percentage of private school teachers (11%; struggling = 6%, surviving = 4%). Profiles differed slightly in average years of experience (struggling = 13.2, surviving = 12.9, thriving = 12.8). The struggling profile had the highest percentage of special education-certified teachers (23%; surviving = 12%, thriving = 16%). Finally, of the three profiles, the struggling profile had the highest percentage of teachers from the Western region of the U.S. (38%; surviving = 22%; thriving = 27%), the surviving profile had the highest percentage of teachers from the Northeast (16%; struggling =6%; thriving = 14%), and the thriving profile had the highest percentage of teachers from both the Midwest (27%; struggling = 6%; surviving = 16%) and Southeast (27; struggling = 6%; surviving =15%).

Regression Analyses

I conducted simple linear regression analysis to determine whether teachers' profile membership significantly predicted their emotional state with gender, race, years of experience, and grade level (i.e., elementary) taught as covariates. I first used the

highest group (i.e., thriving) as the reference group (see Table 11). The regression indicated that profile membership explained 49% of the variance in teachers' emotional state. Results of the overall regression indicated that profile membership significantly predicted emotional state (F=13.9, p <.001). As compared to teachers in the thriving profile (i.e., reference group), teachers in the surviving (β=-0.65, p <.001) and the struggling profiles (β=-1.89, p <.001) had significantly lower emotional state scores. In other words, being a member of the surviving profile resulted in a .65 standard deviation decrease in a teacher's emotional state as compared to the thriving group (the reference group). Being in the struggling profile related to a 1.89 standard deviation decrease in emotional state as compared to the thriving group. In general, women tended to have lower emotional state scores (β=-0.28, p <.001), and teachers with more experience tended to have higher emotional state scores (β=-0.20, p <.001). Findings for race (β=0.05, p = 0.54) and elementary grade level were non-significant (β=0.05, p = 0.52).

As a next step, I conducted a second regression analysis using the lowest group (i.e., struggling) as the reference group (Table 12). As compared to teachers in the struggling profile (i.e., reference group), teachers in the surviving (β = 1.24, p <.001) and the thriving profiles (β = 1.89, p <.001) had significantly higher emotional state scores. In other words, being a member of the surviving profile resulted in a 1.24 standard deviation increase in a teacher's emotional state as compared to the struggling group (the reference group). Being in the thriving profile related to a 1.89 standard deviation increase in emotional state as compared with the struggling group.

CHAPTER 5:

DISCUSSION

The purpose of this dissertation study was to better understand the experiences of teachers during the COVID-19 pandemic. Prior to the pandemic, a 2014 Gallup poll indicated that 46% of K-12 teachers experienced high stress levels, and nearly half of the U.S. teachers who completed the survey were actively looking for a different job or opportunity to change professions (Greenberg et al., 2016). Recent surveys indicate that high stress continues to influence teachers' decisions to leave the profession (Diliberti et al., 2021). In a 2021 poll by the National Education Association, 28% of all educators said the COVID-19 pandemic had made them more likely to retire early or leave the profession. Since the early 1990s, around 8% of public-school teachers left the profession each year, with stress cited as the most common reason for leaving the field (Diliberti et al., 2021); with the pandemic compounding stress for teachers, there is an urgent need to support teachers' well-being in schools.

Teacher well-being research has focused on the importance of work-related factors such as leadership (e.g., Boyd et al., 2011), school belonging (e.g., O'Brennan et al., 2017), colleagues (e.g., Byrne, 2016), parents (e.g., Grayson & Alverez, 2008), resources (e.g., Mehta et al., 2013); professional development (e.g., Ladd, 2011), time pressure (e.g., Fernet et al., 2012), and safety (e.g., Kapa & Gimbert, 2017). Herman and colleagues' (2020) Coping-Context-Competence (3C) model grouped these factors into three major constructs: coping variables (e.g., stress mindset), context variables (e.g., leadership, belonging), and competence variables (e.g., self-efficacy).

The COVID-19 pandemic presented new challenges for teachers including concerns about the health and safety of themselves and their families, leadership decisions outside of their control, and a lack of resources to support hybrid and virtual learning (Anderson et al., 2021, Diliberti et al., 2021). As such, in the current study I measured teacher well-being during the COVID-19 pandemic using constructs associated with the Coping-Context-Competence model, along with additional COVID-19 specific domains, to identify latent profiles based on teachers' school contexts (e.g., administrators, parents, colleagues, feelings of safety) and feelings of competence (e.g., time, professional development, self-efficacy). Additionally, I conducted analyses to examined whether profile membership was related to coping (teachers' self-reported emotional state). I hypothesized that four profiles would emerge: (1) high context-high competence, (2) low context-low competence, (3) high context-low competence, and (4) low context-high competence. Furthermore, I predicted that the high context-high competence profile would have the highest average scores for emotional state, and the low context-low competence profile would have the lowest average scores for emotional state.

Descriptive statistics revealed several notable associations. First, the pair of domains with the highest correlation was leadership with belonging; this association is a consistent finding in the literature and underscores the importance of the tone that leaders set for school culture. Beyond belonging, the leadership domain was most highly correlated with the domains of safety, academic support, and professional development. This suggests that teachers may have looked to their leaders primarily to keep them safe throughout the pandemic as well as for the adaption to the demands of the pandemic

through the provision of both academic support and professional development. Emotional state is the domain most predictive of burnout and in the current study was correlated most highly with belonging and academic support. In other words, teachers' positive feelings about their work were most associated with feeling connected within their schools and having the academic supports they needed to teach.

For context-related variables, teachers rated relationships with colleagues the highest and rated relationships with parents the lowest. This may be because COVID-related decisions in schools put parents' and teachers' goals at odds with one another; many parents were desperate to return to work to earn a living, while teachers were afraid to enter classrooms with unsafe conditions that could put their health at risk. This may have led to increased solidarity with colleagues (Long, 2021) and increased anxiety about communication with parents (Pressley, 2021). For the competence-related variables, teachers provided the highest ratings for COVID-related academic support and the lowest ratings for time to do their jobs (also referred to as time pressure). These ratings are aligned with research by Pressley (2021) finding that communication with administrators was not a significant predictor of burnout for teachers. At the same time, the additional work of converting lesson plans to new formats such as virtual and hybrid, engaging with students and families across multiple platforms, and having to adjust to ever-changing circumstances left them strapped for time.

Latent Profile Analysis

In contrast to my four-profile prediction, three distinct profiles of teacher well-being emerged: a group of "thriving" teachers with higher scores for both context and competence (32% of the sample), a group of "struggling" teachers with lower scores for

both context and competence (12% of the sample), and a group of "surviving" teachers with scores in the moderate range for both context and competence as compared with the other two groups (56% of the sample). This finding converges somewhat with the teacher profiles identified in prior research (e.g., Collie et al., 2020; Portoghese et al., 2020). In a study of nearly 9,000 teachers, Collie et al. (2020) identified a group of struggling teachers with high demands and low coping, a group of teachers with moderate demands and coping, and three additional mixed profiles. In a study of over 1,600 social-services workers, Portoghese et. al (2020) identified a struggling profile, two types of moderate profiles, and one group they called "participatory leaders" with moderate demands and highly positive relationships at work. Aligned with the current study, these LPA studies identified a moderate profile and either a high or low profile; yet, the current study did not identify the mixed profiles found in the prior studies. However, samples in both studies were significantly larger than the current study, did not take place during the COVID-19 pandemic, and, in the case of Portoghese et al., included individuals in service professions more broadly.

Additionally, it is important to note that teachers in the "struggling" and "surviving" profiles had nearly identical average scores (3.33 and 3.34 respectively) for the COVID support domain, while the "thriving" group had a somewhat higher average score (4.05). This may indicate that schools already excelling in other working conditions for teachers were more equipped to provide additional support as the pandemic evolved, while other schools struggled to adapt to the rapid changes.

In contrast with the 3C Model, the current study found that context and competence-related varied together for all teachers, creating high, medium, and low

profiles. While the three-profile solution suggests that teachers who have high context scores are likely to have high competence scores, and teachers who have low context scores are likely to have low competence scores, it is possible that the size, composition, and type of measurement used in this sample made it difficult to identify teachers with more complex profiles (e.g., low context, high competence). With regard to size and composition, the current study's small sample size likely made it more challenging for profiles to differentiate in a complex manner, and our largely homogenous population of White female teachers may have contributed to this issue as well. For example, research suggests that teachers of color experience unique stressors related to school working conditions (Carver-Thomas, 2018); a finding that would be difficult to capture without a more diverse sample. Also, only one form of measurement (i.e., teacher self-report) was used to gather data. In a systematic review of the methodologies used to understand teacher well-being, Hascher and Waber (2019) identified several additional approaches including interviews, journal entries, observations, and reports from leadership but noted that a multi-faceted approach is currently a rarity and an important avenue for future research.

While some fit statistics indicated the presence of a more complex four-profile solution, the LMR value was non-significant and the fourth profile contained just six participants. However, the four-profile solution included an interesting mixed profile of teachers with the lowest scores in leadership, belonging, and agreement with leaders' COVID decisions but moderate to high scores for all other domains, including all resource-related domains, time, professional development, parents, and colleagues (see Figure 2). This additional profile suggests the possibility of a three-pronged model for

teacher well-being that distinguishes leadership and belonging-related contextual factors with other school context variables. The grouping of leadership and belonging arises as leaders set the tone for the school climate, impacting the trust, collaboration, and positive communication that is associated with belonging (Goddard et al., 2015; Tschannen-Moran, 2009). This grouping is also supported by Sandilos and DiPerna's (2022) factor analysis of the MOST scale used in the present study; in their analysis, the authors found that items associated with leadership and belonging represented a single factor. However, given the significant limitations of the four-profile solution, it was not selected as the final profile solution and additional research is needed to determine if it would emerge as a more robust profile solution with larger samples of teachers.

Demographics of the Three Profile Solution

To better understand profile composition, demographics of the three profiles were first compared based on two teacher characteristics that prior research indicates may influence teacher well-being: gender and race. In the current study, each profile had a similar percentage of women in its composition (struggling = 75% women; surviving = 76%; thriving = 79%; see Table 9). Studies in the United States and internationally have produced mixed results related to teacher gender and job satisfaction, with research pointing to higher satisfaction in either men or women (Klassen & Chiu, 2010; Toropova et. al, 2020). In comparison with the other two profiles, the struggling profile contained a slightly higher percentage of white participants (88%; surviving = 81%; thriving = 84%). Struggling teachers likely represent those most likely to leave the profession. While recent research by the U.S. Department of Education (2016) indicates that teachers of color are more likely to leave the profession (22% vs 15% for White teachers), Sun

(2018) presents a counterpoint; in a study of teachers in North Carolina, when controlling for the racial makeup of the schools, Black teachers were actually less likely than White teachers to leave the profession but tended to work in underfunded and understaffed schools. Schools with strong leadership and professional development had higher retention rates for Black teachers (Sun, 2018). Interestingly, the three profiles differentiated most in the areas of leadership, belonging, and professional development. Thus, perhaps the higher proportion of teachers of color in the "surviving" and "thriving" groups could be explained by differences in leadership and professional development. However, as mentioned previously, the sample of teachers of color was small, and analyses did not account the socioeconomic makeup of the schools or the congruence of teacher and student race, two factors that moderate the relationship between teacher stress and race (Fitchett et al., 2020).

Profiles also differed based on the grade level teachers taught and the type of school in which they taught. Middle school teachers made up significantly less of the teacher sample in the struggling profile (12%; surviving = 27% thriving = 36%); the struggling profile had the highest percentage of both elementary school teachers (35%; surviving = 29% thriving = 20%) and high school teachers (47%; surviving = 40% thriving = 34%). Research on how the grade range taught by teachers impacts their well-being is mixed. For example, these findings contrast with the Merrimack College Teacher Survey; their 2022 survey found that of the three grade level types (elementary, middle, and high) middle school teachers were the most likely to be "very dissatisfied" with their jobs. However, other researchers have found no differences in burnout rates based on the grade range teachers taught (Kotowski et al., 2021).

In addition, the struggling profile had the highest percentage of public-school teachers (82%; surviving = 77% thriving = 80%), the surviving profile had the highest percentage of charter-school teachers (19%; struggling = 12%; thriving = 9%), and the thriving profile had the highest percentage of private school teachers (11%; struggling = 6%, surviving = 4%). According to a poll by the National Center for Education Statistics during the 2020-2021 school year, 61% of public-school teachers agreed they had the support and resources they needed during the pandemic as compared with 66% of charter-school teachers and 76% of private school teachers. Thus, the proportion of teachers from each school type in each profile may partially be explained by the level of support and resources provided at their schools.

I also examined profile composition based on years of experience, teacher certification, and region. Profiles differed slightly in average years of experience (struggling = 13.2, surviving = 12.9, thriving = 12.8). While additional years of experience is typically associated with higher levels of well-being (Klassen & Chiu, 2010), other working conditions and the context of the pandemic may have played a larger role in how these teachers rated their experiences. The struggling profile had the highest percentage of special education-certified teachers (23%; surviving = 12%, thriving = 16%). Research on turnover has found mixed results when comparing general education and special education teachers' rate of turnover. While some studies find approximately equal rates, others report higher rates of turnover for special educators (Billingsley & Bettini, 2019). Using latent profile analysis, Gilmour et al. (2021) found that for educators teaching students with emotional and behavioral disorders (EBD), there was no difference in profile membership between general and special education teachers,

which the authors partially attributed to the focus on teachers with students with EBD in their classrooms. The current results suggest that special educators may have experienced more challenges with working conditions during COVID, though replication would be necessary to verify this finding.

Finally, of the three profiles, the struggling profile had the highest percentage of teachers from the Western region of the U.S. (38%; surviving = 22%; thriving = 27%), the surviving profile had the highest percentage of teachers from the Northeast (16%; struggling =6%; thriving = 14%), and the thriving profile had the highest percentage of teachers from both the Midwest (27%; struggling = 6%; surviving = 16%) and Southeast (27%; struggling = 6%; surviving =15%). This diverges somewhat from research by Carver-Thomas and Darling-Hammond (2017) who found that teacher turnover rates are highest in the South (16.7%) and lowest in the Northeast (10.3%). Notably, our sample was a small convenience sample with 33% of our teachers coming from the Northeast. The struggling group contained just 16 teachers and only one teacher from the Southeast and one from the Midwest were a part of this group, making it difficult to generalize findings about teachers in these regions. Additionally, it is possible that a teacher could be struggling but not elect to leave the profession, so this may account for some of the discrepancy across studies as well.

Profiles Predicting Emotional State

Regression analyses indicated that profiles predicted teachers' emotional state. Not surprisingly, teachers with the highest scores for context and competence had the highest scores for emotional state, teachers with the lowest scores for context and competence had the lowest scores for emotional state, and teachers with moderate scores

for context and competence had emotional state scores in between the other two groups. Notably, the change in beta weights between the struggling and thriving group was nearly two standard deviations, indicating that teachers' reported experiences of context and competence variables serve as important indicators for teacher well-being and risk of burnout. This is aligned with the plethora of research indicating that working conditions related to both context (e.g., leadership, belonging, safety) and competence (e.g., professional development, time) are important for understanding teachers' well-being (Boyd et al., 2011; Ladd et al., 2011; Herman et al., 2020), and it supports the use of surveys of working conditions (such as the MOST) to assess aspects of teacher well-being.

Regarding demographics, teachers' self-reported emotional state was not related to race or grade level taught but was related to gender and years of experience. Women tended to rate their emotional state lower than men, and more experienced teachers tended to rate their emotional state more highly than less experienced teachers. Both of these findings are aligned with those from the Merrimack College Teacher Survey (2022) which found that "very satisfied" teachers were more likely to be male and have more than 20 years of experience.

Taken together, the results of the study deviate from the 3C model in that context and competence varied together for all three profiles found in the LPA, resulting in a high, medium, and low profile. However, results were aligned with the 3C model in that teachers ratings across both context and competence-related domains predicted teachers' coping, as indicated by their emotional state.

Limitations and Future Directions

The present study has several limitations that suggest directions for future research. First and foremost, the findings should be replicated with a larger sample. A simulation study by Nylund et al. (2007) indicated that a sample size of approximately 500 would lead to the most accurate assessment of the number of latent profiles. However, prior research has conducted profiles analysis on teachers with smaller sample sizes (Gilmour et al., 2021; Herman et al., 2020). The current sample also had missing data that limits the interpretability of the findings. Due to the nature of survey data, some teachers did not answer questions across all MOST and COVID-19 domains, and 30 teachers did not complete the demographics section. Additionally, because the current LPA was exploratory rather than confirmatory, replication would also reveal whether these three profiles emerge in other samples and whether the fourth profile that was considered represents a distinct group. Additional research should also consider the direct association between context and competence . In other words, it would be useful to determine whether high-context (i.e., better working conditions) schools attract and/or produce high-competence teachers or whether high-competence teachers tend to sort into high-context schools; preliminary research indicates that better working conditions such as high-quality interactions with administrators promote higher levels self-efficacy for teachers (Devos et al., 2012). Furthermore, the current study involved a latent profile analysis followed by a subsequent regression analysis; an emerging approach in latent profile analysis involves simultaneously running the LPA and regression analysis to examine fit across statistical parameters and could be an avenue for future research (Spurk et al., 2020).

Second, the current sample of teachers who identified their race were overwhelmingly White (83%) and female (78%), with an additional 20% of participants choosing not to report their race or gender. While the demographic makeup of our sample is somewhat similar to the overall teaching population (White =79%, women =75%; Pew Research Center, 2018), it may not accurately represent the experiences of teachers of color or people not identifying as women during the pandemic. For example, COVID transmission rates tended to be higher in low-income communities of color, and fathers tended to be less impacted by the childcare challenges brought on by the pandemic. Additionally, our sample was heavily weighted in the Northeast, an area of the country with more funding for education and higher test scores but also a focal point of contention for school return scenarios due to its high concentration of urban districts; notably, the Northeast had the highest rate of masking and social distancing requirements across all regions, and urban districts had lower percentages of students receiving in-person instruction compared with suburban and rural districts (IES, 2021). There also may be sampling bias in the current study, as we were only able to collect survey data from the teachers that responded to our emails or posts on social media. Therefore, it is possible that teachers who took the survey may have stronger opinions or more time to complete a survey than other teachers who were not sampled. Future studies should strive to obtain a larger sample and consider purposeful sampling of teachers of color or teachers who identify as men or non-binary in order to illuminate some of the unique strengths and challenges of being a teacher from these populations (Sun, 2018).

Third, the measures relied solely on a single, self-report tool taken at a single time point. No additional self-report tools were used to measure teacher well-being, nor were

teachers asked to report particular coping skills, as in Herman et al.'s (2020) study. There were no reporters beyond the teachers' themselves that were able to provide behavioral observations. Additionally, the MOST is a new measure that has not been normed with a nationally representative sample of teachers and the COVID-related items were developed by the research team. As such, I could not compare scores in the current sample to a national sample of teachers. Future research could include nationally normed measures of teachers' work experiences and measures completed by other reporters (e.g., observers) to provide a fuller picture of teachers' emotional state and functioning in the classroom (e.g., Hascher & Waber, 2019). Furthermore, because the conditions during the pandemic changed rapidly during the 2020-2021 school year, it is likely that collecting data in February through July 2021 may not reflect the full range of experience of teachers in our sample during this school year or the pandemic as a whole. As such, while emotional state is typically a strong predictor of retention, the unprecedented variability of the pandemic and its long-term impacts may make predictions from a single time-point less precise; in fact, a recent study indicated that in 2020, teacher stress increased 20% from October to June (von der Embse & Mankin, 2021). Even prior to the pandemic, Hindman and Bustamante (2019) found that teachers' experience with depression varied across the school year. Along these lines, another potential direction for future research could be longitudinal studies (e.g., von der Embse & Mankin, 2021) that track teacher working conditions, emotional state, coping skills, and retention over time to determine which working conditions are most important for teacher well-being in the long-term. Additionally, given that leadership appears to be an essential aspect of teachers' overall well-being (Boyd et al., 2011; Eldor & Shoshani, 2016; Grayson &

Alverez, 2008) it would be helpful to identify profiles of leaders who are able to effectively mitigate some of the stress teachers experience in their schools through policies and culture around working conditions.

Implications and Conclusions

More broadly, these findings contribute to the existing literature by taking an ecological approach to examining teacher functioning during the pandemic, considering both context and competence-related variables in building profiles of teachers, and linking profiles of context and competence to emotional state with a positive-psychology lens.

This current study took place during the COVID-19 pandemic, capturing a unique snapshot in time where school systems were stressed in an unprecedented way (Diliberti et. Al, 2021). This study shed light on the working conditions and wellbeing of teachers, highlighting important areas for intervention such as creating a sense of belonging in schools, tailoring professional development to teachers' needs, and recognizing differences in teachers' emotional states under pressure. Teachers already experienced high stress levels before the pandemic, and with the added layer of pressure to help students make up for learning loss, it has become increasingly essential to measure teacher wellbeing and develop interventions to support teachers and ultimately maintain the teaching workforce.

The current study was designed to align with researcher Amy Roberts' work in collaboration with the Buffett Early Childhood Institute; she and her team developed an ecological model for teacher well-being that included both contextual and individual factors that help teachers flourish (Roberts & Kim, 2019). The current study bolsters

Roberts' framework by including pandemic-specific ecological factors that impact teacher wellbeing. Using Roberts' framework to build on Herman and colleagues' (3C) Model, the current study included five additional variables in the competence domain: general resources, COVID-19 specific resources, resources for supporting students with disabilities, work time, and professional development. All of these are schoolwide supports provided to teachers that can increase their feelings of competence. Moderate correlations between these variables and teachers' emotional state (.34-.54) provide preliminary evidence that these resource-oriented variables may be additional useful indicators of teacher well-being. This is further supported by Manasia and colleagues (2020) who found that job resources provided to teachers had a larger impact on their subjective well-being than their personal resources (i.e., self-efficacy). In other words, considering competence from an ecological lens (i.e., resources available that enable teachers to be more effective in the classroom), which was the approach used in this study, broadens our understanding of teacher wellbeing and supports an extension of the 3C model to include school-level variables that influence teacher competence. Thus, to support struggling teachers through the pandemic and beyond, it is essential to continue to examine the systems in which they work and to make adjustments that give teachers a greater sense of connection to their leaders and colleagues and provide the resources and training they need to support students effectively. In the Merrimack College Survey (Kurtz, 2022), 15% of teachers surveyed reported that they were "very dissatisfied" with their jobs, and half of those teachers planned to leave the profession in the next two years. Of the "very dissatisfied" group, just 13% felt they had influence over their own schedules and school policies and 45% of these teachers felt they could come to their

school leaders for support. Knowing that burnout is a precursor to attrition, there is an urgent need for policymakers and school leaders to provide tangible and useful supports to teachers and to include them in decisions that impact their well-being in order to maintain the teaching workforce.

Finally, these findings emphasize the value of positively-framed questions about teacher well-being. Notably, the conceptualization of emotional state as the "coping pathway" diverges from Herman and colleagues' (2020) research in that it does not examine stress and particular coping strategies, but instead focuses in on the positive mindset aspect of the coping construct. The profiles related to emotional state in a predictable way such that the higher teachers' context and competence ratings were, the higher their emotional state ratings were. This finding is aligned with Herman and colleagues' call in their paper for future research focused on a broader definition of stress that includes stress that is beneficial and/or well-managed. Based on research from the past two decades, the positive psychology approach to teacher well-being was selected to identify the positive and healthy aspects of teachers' work lives such as positive attitudes toward the profession as well as joy and engagement in the classroom, all of which are precursors to job satisfaction (Jennings & Greenberg, 2009; Parveen & Bano, 2019) and predict retention (Collie et al., 2012; Grayson & Alvarez, 2008). Kim and colleagues (2020) call this positive orientation "positive stress mindset" and found that teachers with this mindset experienced less job stress and lower rates of turnover.

The distinct "thriving" profile in this study suggests that some teachers are able to cope well with the stress of teaching, and that context and competence-related factors help these teachers enjoy their work; however, more research is needed to determine

whether thriving teachers seek out better contexts, or whether better contexts produce thriving teachers. Notably, in the Merrimack Teacher Survey (Kurtz, 2022), of the teachers who were "very unlikely" to leave the profession (33% of the overall sample), 77% felt they could turn to their school leaders for support and 74% felt they could turn to mentors for support. This connection is further evidenced by the strong correlations between leadership, belonging, and emotional state found in this study and others (e.g., Sandilos & DiPerna, 2022), and underscores the critical role leaders play in supporting their teaching workforce.

In conclusion, the current study identified three profiles of teacher well-being based on teachers' ratings of context and competence during the pandemic: a struggling profile, a surviving profile, and a thriving profile. Furthermore, profile membership was associated with teachers' emotional state. Importantly, this study took an ecological approach to teacher competence, looking at the systemic factors that influence teachers' feelings of competence. While high-stakes accountability practices place the onus on teachers to improve their own competence as a means of improving student outcomes, measuring teacher competence in an ecological fashion sheds light on the systemic influences on teacher competence such as professional development, time pressure, and resources provided and other contextual influences such as leadership and belonging. Because teachers' emotional state serves as a key indicator for burnout, it is essential to monitor the current working conditions of teachers and promote school- and systems-level changes that support teacher retention. Additionally, this study's positive framing of "emotional state" contrasts with studies focused solely on its absence through stress and burnout. Future research could shed light on school-level interventions for leaders to

support struggling and surviving teachers through the improvement of working conditions to match those of thriving teachers, including but not limited to increasing teacher autonomy in decision-making, providing opportunities to connect with thriving mentor teachers, and tailoring professional development to meet teachers' needs. Teachers play a critical role in the learning and development of our nation's youth; cultivating a robust workforce of thriving teachers is of utmost importance.

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APPENDIX A: TABLES AND FIGURES

Table 1

The Measure of Stressors and Supports for Teachers (MOST)

Context Items
Leadership (α = .93) My school leaders... 1. support my efforts to implement school rules. 2. discuss classroom issues with me. 3. provide me with helpful feedback about my teaching. 4. recognize me for the good teaching that I do. 5. care about my well-being. 6. make decisions that help my students. 7. demonstrate consistent expectations for student conduct. 8. include me in decisions concerning general administrative policies and procedures. 9. include me in decisions concerning administrative policies and procedures specific to COVID-19.[+]
Belonging (α = .94) At this school, I feel... 1. valued. 2. treated with respect. 3. like I belong. 4. the school's mission/vision aligns with my own. 5. a sense of pride in my school.
Colleagues (α = .87) My colleagues… 1. encourage each other to grow professionally. 2. work together to meet student needs. 3. collaborate on instructional planning. 4. provide helpful feedback to me about my teaching. 5. view me as knowledgeable in my area of expertise. 6. discuss classroom issues with me. 7. trust each other.
Parents (α = .86) Parents of my students... 1. work with me to support their children's academic progress. 2. are open to discussing their child's difficulties in school. 3. provide appropriate homework support to their child. 4. inquire about their child's progress. *5.* communicate with me (via email, phone, etc.) about their child.

Table 1 (continued)
The Measure of Stressors and Supports for Teachers (MOST)

Competence Items

Access to Resources and Supports for Classroom Students (α = .90)

I have sufficient resources (training, supports, etc.) to...

1. meet my students' academic needs.
2. meet my students' social-emotional needs. promote positive student behavior in my classroom.
3. adequately support my students who are racially, culturally, and/or ethnically diverse.
4. meet the needs of my students who are non-native English speakers.

Access to Resources and Support for Students with Disabilities (α = .96)

I have sufficient resources (training, supports, etc.) to...

1. meet the academic instructional needs of my students with learning disabilities.
2. meet the social-emotional needs of my students with learning disabilities.
3. meet the academic instructional needs of my students with behavioral/emotional disorders.
4. meet the social-emotional needs of students with behavioral/emotional disorders.
5. meet the academic instructional needs of my students with intellectual disabilities.
6. meet the social-emotional needs of my students with intellectual disabilities.
7. adapt my instruction to meet the needs of special education students in the general education setting.

Access to Professional Development (α = .94)

Professional development within my school/district...

1. improves my ability to address the academic needs of my students.
2. improves my ability to provide effective classroom management.
3. improves my ability to address the social- emotional needs of my students.
4. is appropriate in frequency/intensity.
5. is responsive to my needs related to virtual instruction. .[+]
6. has provided training on technology needed to engage students in virtual instruction.[+]

Access to Time (α = .93)

At this school, I feel...

1. I have enough time during my contracted work hours to prepare lessons.
2. I am able to take adequate breaks during my workday.

3. I have time to eat lunch during my workday.
4. I have enough instructional time to support each of my students.

Table 1 (continued)
The Measure of Stressors and Supports for Teachers (MOST)

Coping Items
Emotional State ($\alpha = 0.92$)
I feel....
1. satisfied when working with my students.
2. positive about being a teacher.
3. happy when I get up in the morning on school days.
4. pleased with my ability to keep up with the demands of my job.
5. my work-life balance is healthy.
6. my outlook on the profession of teaching is positive.
7. I adequately cope with job-related stress.
8. if I were to choose my job again, I would still become a teacher.

Note. [+]Item added or adapted to reflect the COVID-19 pandemic. All item responses scored on a range of 1 (*Never*) to 5 (*Almost Always).*

Table 2

COVID-19 Items

Context Items

*Agreement with Leaders' COVID-19 Decisions**

Please indicate how much you agree with the instructional decisions your school/district has made related to COVID- 19.

*COVID-19 Safety*** (α = .73)

I have worked in classroom(s) in which...

1. students sit six feet apart.
2. I stay six feet away from my students.
3. I am provided with Personal Protective Equipment (masks, shields, etc.).
4. students are expected to wear masks.
5. the classroom is professionally cleaned.
6. my class size is reduced for safety.
7. students stay within their "cohort".
8. students participate in a health screening before entry.
9. there is adequate air filtration.
10. students have their own school supplies (i.e., they do not share materials).

Competence Items

*Access to Online/Hybrid Instructional Resources*** (α = .88)

I have felt equipped to…

1. develop lesson plans for entirely virtual instruction.
2. develop lesson plans for hybrid instruction.
3. execute lesson plans for entirely virtual instruction.
4. execute lesson plans for hybrid instruction.
5. use the online learning classroom provided by my school/district.
6. facilitate online discussions. develop online assessments.
7. provide online instruction in small groups tailored to students' needs.

Note. *Responses scored on a range of 1 (*Strongly Disagree*) to 5 (*Strongly Agree).*
**Responses scored on a range of 1 (*Never*) to 5 (*Almost Always).*

Table 3

Total Emails Sent by Region, School Type, and Grade Level

Category	Emails Sent	Percent of Total
Region		
Northeast	1283	42.68%
Southeast	662	22.02%
Midwest	521	17.33%
Southwest	14	0.47%
West	526	17.50%
Total Emails	3006	
School Type		
Public	2528	84.24%
Private	321	10.70%
Charter	152	5.06%
Total Emails	3001	
School Level		
Elementary	956	31.79%
Middle	652	21.68%
High	1000	33.26%
Mixed	399	13.27%
Total Emails	3007	

Note. Totals are not consistent across categories due to some missing data.

Table 4

Teacher Demographics (N=164)

Demographic Variable	Percent	Count
Race		
White	66	108
Black	5	8
Hispanic	2	4
Asian	<1	1
Native Hawaiian/Pacific Islander	<1	1
Multiracial/Other	5	9
Missing	20	33
Gender		
Female	62	101
Male	17	28
Transgender/Non-Binary	1	2
Missing	20	33
Region		
Northeast	33	55
Southeast	15	23
Midwest	12	20
West/Southwest	21	34
Missing	19	33
School Type		
Public	65	106
Charter	12	20
Private	5	9
Missing	18	29
Grade Level	23	38
Elementary	23	37
Middle	32	53
High	22	36
Missing		
Teacher Certification		
Regular Education	71	117
Special Education	11	18
Missing	18	29

Note. Teachers in the sample taught for an average of 13 years with a minimum of 1, a maximum of 36, a median of 11, and a standard deviation of 8.94.

Table 5

MOST and COVID-19 Domains Descriptive Data

Composite	N	Mean	Std Dev	Min	Max	Skew	Kurtosis
Leadership	151	3.10	0.86	1	5	-0.09	-0.46
Belonging	150	3.55	0.99	1	5	-0.38	-0.58
Colleagues	150	3.75	0.71	1	5	-0.42	0.21
Parents	154	2.88	0.69	1	5	0.56	0.52
COVID agreement	163	3.20	1.07	1	5	-0.31	-0.64
COVID Safety	132	3.66	0.76	1	5	-0.30	-0.29
General Support	146	3.54	0.88	1	5	-0.37	0.20
Special Ed Support	142	3.31	0.93	1	5	-0.15	-0.25
COVID support	154	3.57	0.83	1	5	-0.36	-0.23
PD	146	3.01	0.93	1	5	0.06	-0.20
Time	150	2.96	0.92	1	5	0.11	-0.61

Table 6

Correlations Among MOST and COVID-19 Domains

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Leadership	--	0.81**	0.35**	0.32**	0.24**	0.51**	0.53**	0.41**	0.43**	0.54**	0.28**	0.43**
2. Belonging	--	--	0.51**	0.31**	0.47**	0.48**	0.52**	0.42**	0.19**	0.54**	0.30**	0.57**
3. Colleagues	--	--	--	0.31**	0.17*	0.29**	0.41**	0.35**	0.28**	0.34**	0.21**	0.43**
4. Parents	--	--	--	--	0.24**	0.24**	0.33**	0.31**	0.32**	0.25**	0.37**	0.38**
5. COVID Agree	--	--	--	--	--	0.28**	0.23**	0.31**	0.19*	0.29**	0.21**	0.35**
6. COVID Safety	--	--	--	--	--	--	0.41**	0.35**	0.30**	0.57**	0.36**	0.43**
7. General Support	--	--	--	--	--	--	--	0.72**	0.31**	0.56**	0.46**	0.54**
8. SpEd Support	--	--	--	--	--	--	--	--	0.38**	0.48**	0.41**	0.42**
9. COVID support	--	--	--	--	--	--	--	--	--	0.37**	0.38**	0.34**
10. PD	--	--	--	--	--	--	--	--	--	--	0.3**	0.44**
11. Time	--	--	--	--	--	--	--	--	--	--	--	0.46**
12. Emotional State	--	--	--	--	--	--	--	--	--	--	--	--

**p < .05, **p < .01*

Table 7

Missingness Chi-Square and T-Test Results for Demographic Variables

Demographic Variable	Pearson Chi-Square/ Student's T	*p*	*Effect Size* (φ/*d*)
Gender	1.40	0.24	0.10
Race	1.34	0.25	0.10
Elementary	0.82	0.37	0.08
Middle	3.37	0.07	0.16
High	2.66	0.10	0.14
Public	2.75	0.08	0.14
Charter	0.37	0.55	0.05
Private	0.96	0.33	0.08
Years of Experience	-1.75	0.08	0.16

**p < .05, **p < .01*

Table 8

Latent profile analysis model fit statistics for 1- through 6-profile solutions

No. of profiles	AIC	BIC	SSBIC	LMR	Entropy
1	4201.10	4270.19	4200.54	--	--
2	3858.75	3964.15	3856.52	361.34 (p=0.14)	0.79
3	**3747.31**	**3889.91**	**3744.27**	**133.26 (p=0.008)**	**0.85**
4	3707.34	3887.13	3703.50	62.95 (p=0.25)	0.89
5	3683.63	3900.62	3679.00	46.94 (p=0.71)	0.84
6	3663.41	3917.59	3657.99	43.52 (p=0.17)	0.83
7	3652.19	3943.57	3645.98	34.65 (p=0.38)	0.83
8	3647.30	3975.88	3640.29	30.04 (p=0.38)	0.84
9	3641.83	4007.61	3634.03	28.10 (p=0.46)	0.85

Note. Bolded text indicates selected profile.

$^{+}p < .10$

Table 9

Domains by Profile Type

	Profile 1 (*n*= 19, 12%) *Struggling*				Profile 2 (*n*= 92, 56%) *Surviving*				Profile 3 (*n*= 53, 32%) *Thriving*			
	Mean	SD	Min	Max	**Mean**	SD	Min	Max	**Mean**	SD	Min	Max
Composite												
Leadership	**1.89**	0.52	1	3	**2.88**	0.57	1.67	4.67	**3.92**	0.51	2.67	5
Belonging	**1.99**	0.44	1	2.8	**3.28**	0.69	1	5	**4.51**	0.43	3.6	5
Colleagues	**3.07**	0.79	1.71	4.14	**3.63**	0.63	2	**5**	**4.18**	0.51	3	5
Parents	**2.36**	0.60	1.2	3.6	**2.76**	0.57	1.6	4	**3.26**	0.72	2.2	5
COVID Decisions	**2.47**	1.17	1	5	**2.91**	0.97	1	5	**3.94**	0.74	2	5
COVID Safety	**2.69**	0.57	1.8	5	**3.54**	0.66	1.44	5	**4.17**	0.53	2.9	5
General Support	**2.29**	0.78	1	4	**3.46**	0.66	2.2	5	**4.13**	0.66	2	5
SpEd Support	**2.17**	0.76	1	3.43	**3.2**	0.71	1.71	5	**3.95**	0.82	2	5
COVID support	**3.33**	0.94	1	4.75	**3.34**	0.81	1.44	5	**4.05**	0.62	2.44	5
PD	**1.62**	0.46	1	2.43	**2.84**	0.58	4.14	4.75	**3.77**	0.78	1.5	5
Time	**2.11**	0.87	1	4	**2.87**	0.81	1	4.75	**3.39**	0.88	1.71	5

Table 10

Descriptive Statistics by Profile Type

	Profile 1 (*n*= 19, 12%) *Struggling*		Profile 2 (*n*= 92, 56%) *Surviving*		Profile 3 (*n*= 53, 32%) *Thriving*	
	n	Percentage	n	Percentage	n	Percentage
Gender						
Woman	12	75%	55	76%	34	79%
Man	4	25%	15	21%	9	21%
Trans/Nonbinary	0	0%	2	4%	0	0%
Race						
White	15	88%	58	81%	36	84%
Black	0	0%	4	6%	4	9%
Multiracial	1	6%	6	8%	2	5%
Hispanic	0	0%	3	4%	1	2%
Asian/Pacific Islander	1	6%	1	1%	0	0%
Grade Levels Taught						
Elementary	6	35%	21	29%	9	20%
Middle	2	12%	20	27%	16	36%

Table 9 (continued)

Descriptive Statistics by Profile Type						
High	8	47%	29	40%	15	34%
Mixed Grade Levels	1	6%	3	4%	4	9%
School Type						
Public	14	82%	56	77%	36	80%
Charter	2	12%	14	19%	4	9%
Private/Other	1	6%	3	4%	5	11%
Special Ed. Certification						
Gen ed. certified	13	81%	65	89%	37	86%
Special ed. certified	3	23%	8	12%	6	16%
Region						
Northeast	8	50%	33	45%	14	32%
Southeast	1	6%	12	16%	12	27%
Midwest	1	6%	12	16%	6	14%
West	6	38%	16	22%	12	27%
	Mean	SD	Mean	SD	Mean	SD
Years of Experience	13.2	9.03	12.9	9.58	12.8	7.96

Table 11

Regression with profiles predicting emotional state, "Thriving" reference group

					95% CI	
Variable	*B*	*β*	*SE*	*p*	LL	UL
(Intercept)	4.07	-	0.21	<.001**	3.65	4.49
Struggling	**-1.73**	**-1.89**	**0.29**	**<.001****	**-2.16**	**-1.30**
Surviving	**-0.59**	**-0.65**	**0.16**	**<.001****	**-0.92**	**-0.28**
Gender (Female)	-0.59	-0.28	0.17	0.001**	-0.93	-0.24
Race (White)	0.15	0.05	0.24	0.543	-0.34	0.63
Years of Experience	0.02	0.20	0.01	0.01*	0.01	0.04
Elementary	0.10	0.05	0.16	0.519	-0.21	0.42

**p < .05, **p < .01*

Table 12

Regression with profiles predicting emotional state, "Struggling" reference group

					95% CI	
Variable	*B*	*β*	*SE*	*p*	LL	UL
(Intercept)	2.34	-	0.24	<.001**	1.87	2.81
Surviving	**1.13**	**1.24**	**0.20**	**<.001****	**0.74**	**1.53**
Thriving	**1.73**	**1.89**	**0.22**	**<.001****	**1.29**	**2.16**
Gender (Female)	-0.59	-0.28	0.17	0.001**	-0.93	-0.24
Race (White)	0.15	0.05	0.24	0.54	-0.34	0.63
Years of Experience	0.02	0.20	0.01	0.01*	0.01	0.04
Elementary	0.10	0.05	0.16	0.52	-0.21	0.42

**p < .05, **p < .01*

Figure 1

Herman et al (2020)'s Coping-Competence-Context (3C) Theory

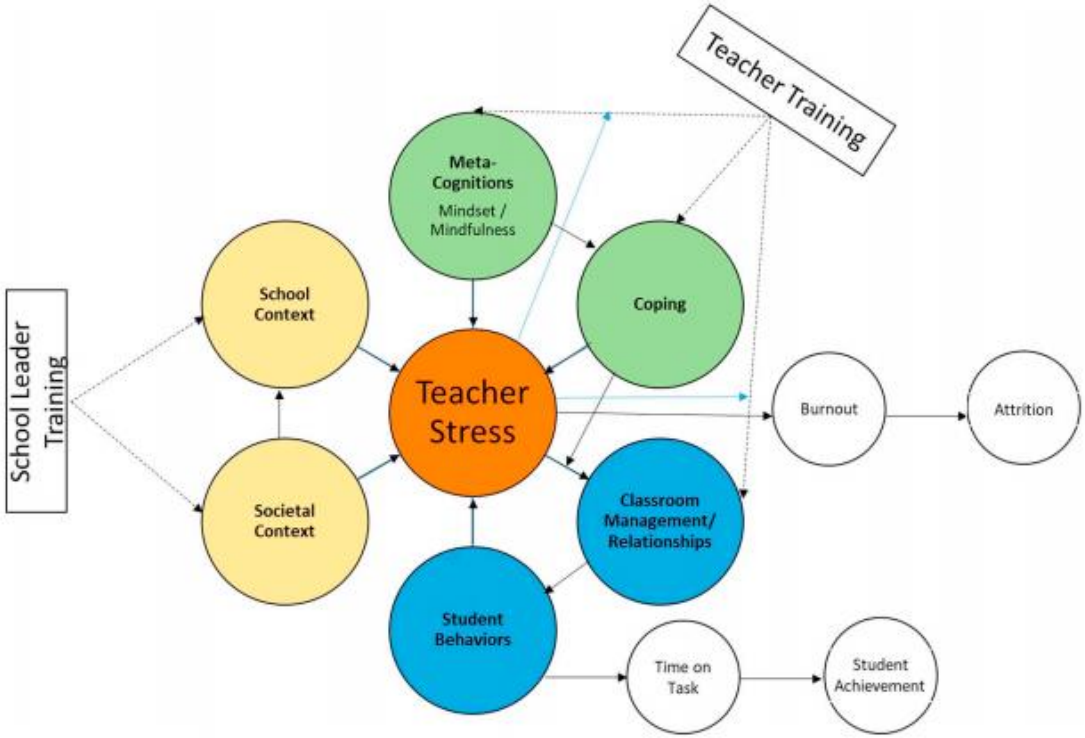

Figure 2

Latent Profile Analysis: Three-Profile Solution

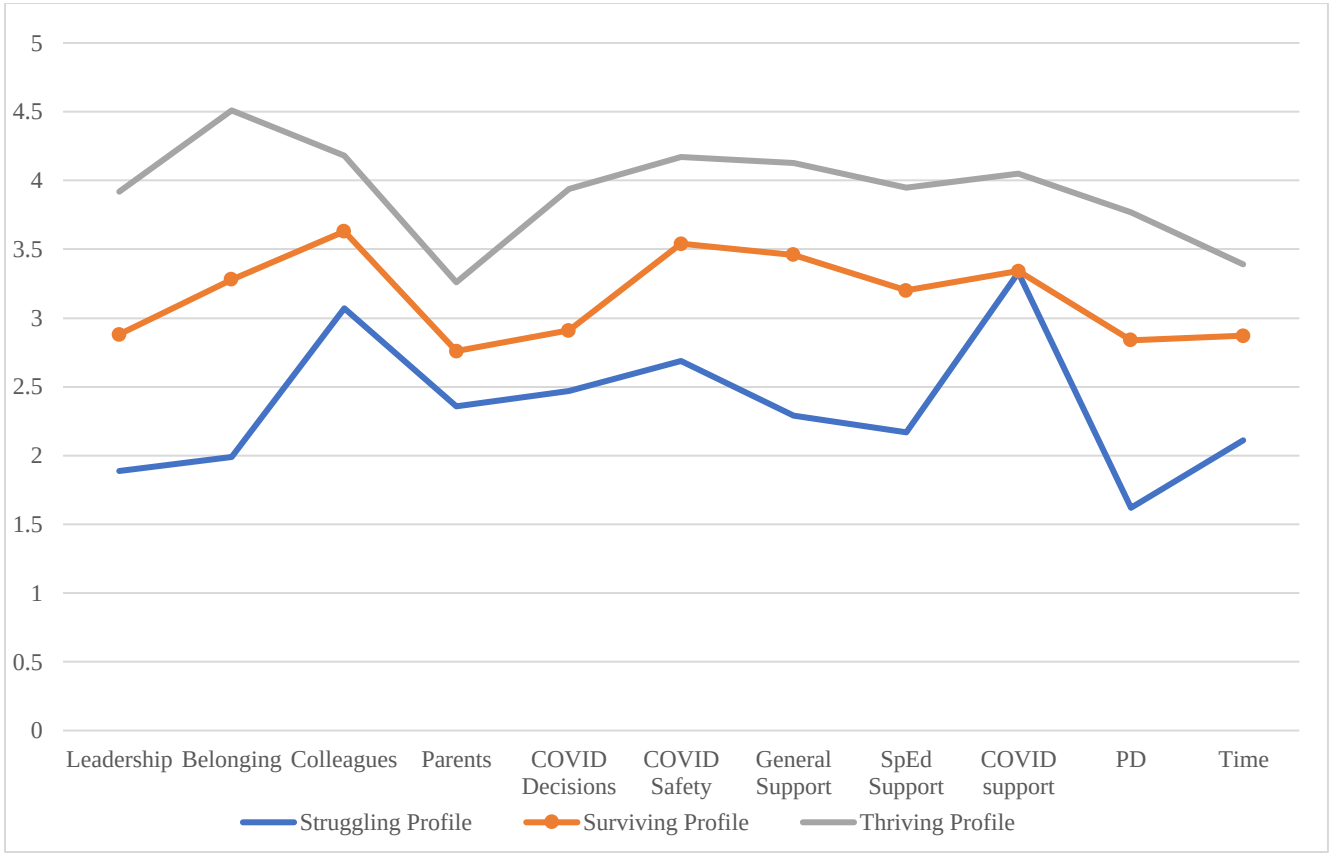

Figure 3

Latent Profile Analysis: Four- Profile Solution